

Cultural Connections

Volume VI

2021

Culture and Crisis

About Culture Academy Singapore

The Culture Academy (CA) champions the development of the next generation of Singapore's cultural leaders in the public and private sectors. CA's work focuses on three inter-related areas: Leadership and Capability Development, Research and Scholarship, and International Partnerships, which cut across all of CA's strategic priorities.

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Foreword

It has been close to two years since COVID-19 hit the world and disrupted lives and livelihoods with millions of lives lost. Although the arts and culture sectors throughout the world were badly impacted, our 2020 edition of *Cultural Connections* reflected how the artistic community banded together to uplift spirits and also how they have been resilient and innovative in pivoting to respond to challenges.

Now as 2021 draws to a close, our arts and culture scene continues to be significantly impacted by constraints on live performances, audiences, and visitor numbers. But on the positive side, there are now novel and immersive arts experiences that bring together the physical and digital worlds to delight audiences in new ways.

In Singapore, work opportunities also shrank for self-employed persons (SEPs) in the sector. More than 80% of the freelancers faced project cancellations and postponements. With almost 50% of the sector's workforce being SEPs, this disruption has caused many to diversify and transfer their skills to other sectors. Moreover, with the inability to conduct live performances and the need to play to a smaller audience due to safe distancing measures, revenues for art companies and cultural institutions have also been greatly reduced.

Singapore's Prime Minister Lee Hsien Loong has spoken about the "Crisis of a Generation", and this has indeed been the situation facing our arts sector. With the support of the Singapore Government's Arts and Culture Relief Package of S\$75 million, many in the arts community have tapped on project grants to upskill themselves with digital know-how as they continue to create new works of art and embark on new initiatives that will make a longer-term impact on their careers and livelihoods. Many others have also used this down time to further their research into their art forms and better equip themselves with new and deeper knowledge of their craft to create more cutting-edge work that has been well received by their stakeholders.

These efforts are testament to the arts and culture community's resilience and adaptability in the face of crisis, and how it is beneficial to a society's well-being. We have a "never-say-die" attitude that willingly embraces change, brings solace, and bonds people together in difficult and good times.

This is why we have dedicated this 2021 edition to the theme of Culture and Crisis—to acknowledge how culture has over the centuries, been used to bring societies together, create a sense of strong national identity, and create meaning in people's lives. On the other hand, culture has also been used during times of crisis to break a nation's confidence and question its sense of identity, for example during wartime.

Throughout these two challenging years, one thing is clear: in surveys conducted locally and internationally, culture is a strong tool that when effectively wielded, will present considerable benefits to a society during good and bad times, in the form of intangible benefits to a society's economy, well-being and sense of identity.

Rosa Daniel (Mrs)

Dean, Culture Academy Singapore

Editor-in-Chief's Note

Destruction and creation are two sides of the same coin. This is most clearly seen during crises, when disruption to life as we know it and devastation of established norms also bring forth deeper meditation on the essence of humanity, artistic creation, and invigoration of creative practices.

As we draw close to the end of 2021, two years into the COVID-19 pandemic, we feel it is time to take a step back and delve into the broader question of crises and their impact on the arts and culture sector. This edition of *Cultural Connections* presents the perspectives and experiences of arts and cultural luminaries and thought leaders on the topic and gives us pause for reflection.

We have a number of essays reflecting on the nature of crises, the stresses they cause, and the role of arts and culture in helping societies weather such turmoil. The contributions by Professor Tan Tai Yong of Yale-NUS College and Singaporean medical practitioner Dr Wong Tien Hua both discuss the pivotal role of arts and culture in ensuring social and mental resilience and how it is essential in the making of a healthy community, while Suenne Tan, National Gallery Singapore, shows us how museums can actively support mental well-being in communities. Dr Susie Lingham, Singapore, highlights the role of artistic and cultural creations and projects in mitigating the impact of crises and providing spaces for reflection, healing, and de-escalation of conflict.

The question of how the arts and culture are shaped by crises is explored in a few essays. Kwa Chong Guan, S. Rajaratnam School of International Studies, looks at how portrayal of war in cultural products has evolved over time in Southeast Asia and proposes another angle to the phrase “Culture of War”. Phan Ming Yen, The RICE Company Ltd, proposes that the arts can be a tool for survival in crises, as the case of Syonan Symphony Orchestra established during wartime Singapore reveals. Finally, this edition's centrespread by Dr Eugene Tan, National Gallery Singapore, is a curated presentation of artworks from Singapore's National Collection, featuring how artists have engaged with and addressed crises of their times.

Another aspect of confronting crises is how arts and cultural institutions respond and adapt while continuing to serve their communities. The experience of Australian museums in adapting to disasters such as fires and floods, and in preserving cultural identities in the face of such challenges, is documented in the essay by Professor Robyn Sloggett, University of Melbourne. Chung May Khuen, National Museum of Singapore, shares the museum's lessons in pivoting to digital platforms in the wake of COVID-19.

Technology, with its benefits and ills, also features heavily in this volume's contributions. Peter Tullin, co-founder of REMIX Summits, gives us an overview of exciting developments in this respect, from institutional partnerships with content creators to innovative digital strategies adopted by forward-thinking museums and libraries. Jervais Choo, National Heritage Board, Singapore, discusses the challenges and opportunities of the digital realm for the sector and highlights forays into the digital by local organisations, while Zulkifli Zulhaqem, Centre for Strategic Futures, deliberates on the questions posed by technology to the creative process, specifically, if it is to remain an exclusively human endeavour.

Finally, we have three essays reflecting on crises and opportunities. Ravi Menon, Monetary Authority of Singapore, presents an overarching view of global crises confronting mankind, and posits that Singapore has a role to play in mitigating them. Professor Mitsuru Haga, Tohoku University, gives us an overview of humanity's trajectory and his thoughts on the ultimate crisis—that of the extinction of humans—and how we may collectively prevent it. For our closing essay, futurist Sir Geoff Mulgan shares his thoughts on the impact and opportunities afforded by three current crises—climate change, new technologies, and social inequality and recognition—and their impact on artists and their roles.

We hope this collection of essays provokes the same sense of reflection, purpose, and even hope, as it did with the editorial team. May 2022 be a year of hope and testament to the strength and endurance of the human spirit.

Thangamma Karthigesu (Ms)

Director (Leadership and Capability Development) and Editor-in-Chief
Culture Academy Singapore

Culture and Crisis

Professor Tan Tai Yong

President
Yale-NUS College

The COVID-19 pandemic is often portrayed as a healthcare and economic crisis. However, as rightly pointed out by the author, the pandemic has also created tremendous mental and social stress. By drawing on local examples, the author shows that culture plays a special pivotal role in sustaining communities and building the resilience and mental strength needed to weather the crisis and its challenges.

While we are not yet out of the woods, pundits, planners, and policymakers, and not least historians, must be reflecting on the impact of the long-drawn global pandemic and pondering the lessons to be learnt from this global crisis. The profound impact of COVID-19 on lives and livelihoods has been unprecedented to say the least. Our social interactions, our sense of community, the way we work, familiar habits (the good and the bad) we have taken for granted have been upended. The experience has been harrowing and humbling. It is also a sobering and timely reminder for change, for reflection on what we value and desire for our society as we move forward. While it is probably premature for any country or organisation to claim victory over the virus, the knowledge and experience of the past 20 months may afford the world some sense of how to move forward.

As an emergency that cuts across healthcare, social life, the workplace, and economy, as well as politics and international relations, the COVID-19 crisis has required the marshalling of total state efforts and resources to bear on tackling its multifaceted challenges. Better organised states that are politically united, well-coordinated and with easy access to abundant resources tend to have a better handle on managing the crisis, are able to utilise technology for good measure, secure

and deliver vaccines, and coordinate social and economic actions as necessary. Clearly, in times of crisis, effective governance tends to bring about better outcomes.

But the complexity of the crisis has also made one thing clear—that governments alone cannot provide for every need and solve all problems. A crisis that has not only threatened lives, but also amplified existing problems and fault lines, disrupted livelihoods and accentuated hardships for vast sections of populations, needs more than hospital beds, medicines, and financial panaceas. The structural and emotional problems that have emerged—social divisions, economic hardships, stress, and despair—require attention and care that can better be undertaken and sustained at the community level.

It will become evident, as the crisis wears on, that the best hope of weathering the challenges, and eventually emerging well from it, will have to depend on individual and community resilience, solidarity and support, as well as the ability to find cheer and hope in prolonged moments of hardship and uncertainty. The consciousness and ability to sustain community spirit in trying times do not normally stem from state action, but emanate from an organic sense of belief, self-awareness, and willingness to act—both at the individual and community level. In such times, there has to be a meaningful and concerted engagement between government, individual, and community. These conversations are potentially fraught with difficulties but they are necessary.

Jon Hawkes, an Australian scholar and leading commentator on cultural policy, asserts that a society cannot survive unless it is able to “develop and maintain, amongst its constituents, a shared expression of, and commitment to, a sense of

meaning and purpose.” According to him, “a society’s values are the basis upon which all else is built. These values and the ways they are expressed are a society’s culture.” Culture, which Hawkes defines as “the inherent values and the means and the results of social expression” and what “enfolds every aspect of human intercourse”, is not just a “ballast to keep communities afloat in difficult times”. Its vitality is essential for a sustainable and flourishing society; it is a fourth essential pillar, he argues, alongside social equity, environmental responsibility, and economic viability (Hawkes 2001, vii).

Culture as shared beliefs—“shared patterns of behaviours and interactions, cognitive constructs and understanding that are learned by socialisation”—(Center for Advanced Research on Language Acquisition 2020) is a therefore a form of social glue that keeps people together, in good times and bad.

Hawkes further asserts:

... the sick, hungry and poor can maintain a sense of wellbeing if there is the feeling of being an active part of an organism that is bigger than oneself. This is not said to trivialise Maslow’s hierarchy of basic needs but to redress the balance. Bread alone is simply not enough. Culture is not the decoration added after a society has dealt with its basic needs. Culture is the basic need—it is the bedrock of society (Hawkes 2001, vii).

Culture is not a passive and innate form of identity and behaviour that defines and prescribes a community. Often, in times of disruptions, uncertainty and trauma, cultural actions, drawing on the “cognitive, emotional, sensory, and imaginative” (Ko and Ngiam 2017) can offer a

way for people to find solace, meaning and hope. By cutting “across the realm of the personal to the communal, the societal and national, culture can be a great unifier and a catalyst for building a civic culture of care, cohesion and confidence” (National Arts Council 2018).

In times of crisis, when concerns and needs are immediate and pressing, the salience and value of intangibles such as the arts and culture are often overlooked. In June 2020, *The Straits Times* commissioned a survey on perceptions Singaporeans had, in the context of the COVID-19 pandemic, of the role that essential workers play, and the discrepancy between their value to society and what they earn. In the survey, respondents were asked which jobs they deemed most essential and non-essential, out of a randomised list of 20 jobs across the spectrum. Artists emerged top of the list of non-essential workers. The results sparked debate and animated discussion about the value Singapore society places on artists.

It is not surprising that periods of trauma and uncertainty give impetus to heightened cultural vitality. Southeast Asian art is replete with examples of expressions that capture the mood of the times. While Singapore has not had these major moments of trauma in recent history, there have been examples where people had turned to cultural expression to manifest a deep-seated mood. The *xinyao* music movement of the 1970s/1980s was a prime example. The movement emerged organically, alongside growing sentiments of nostalgia, attachment to places, and weariness which contested the state rhetoric of unceasing progress. The *xinyao* movement was not overtly political in motive or nationalistic but it reflected an active search for meaning in a changing world (Ho 2017).

The COVID-19 pandemic did not only rupture healthcare systems and the economy; it generated immense mental strains and fractured relationships between individuals and within communities. Under such circumstances, cultural activities allowed people to build resilience, heal, and even maintain sanity. Despite being hit hard during the pandemic in terms of jobs and funding, the arts community still resolved to find ways to survive and contribute in their own ways. During the Circuit Breaker, a period of enhanced safety measures to reduce transmission of COVID-19 from April to May 2020, an organisation known as The Red Pencil Humanitarian Mission started using art therapy to strengthen mental health. It initiated free online art therapy experiential workshops to motivate positivity and resilience in the community during this period. The participants overwhelmingly agreed that the workshops helped them cope with stresses arising from the safety measures (The Red Pencil Humanitarian Mission 2020).

“Keep calm, make art”, also launched in April 2020 by the organisation, used social media as a platform to share weekly inspirations and ideas of art therapy prompts in video format, where viewers could follow the simple instructions for home-based activities. A community choir group led by a local artiste dedicated a music video to workers who were required to go to work as usual during Circuit Breaker, such as healthcare

workers, postmen, and people in essential services. The song sent out their message of support and solidarity (Syncroony 2020). The Public Art Trust (PAT), an initiative by the National Arts Council, commissioned public art as part of local urban spaces, motivating Singaporeans to engage, reflect, and imagine a future moving forward post-COVID-19 (Public Art Trust 2020).

Culture is essential in the making of a healthy community. It has been argued that cultural awareness promotes empathy, imagination, improvisation, and a sense of community, the very elements that could bring about positive change (Goldbard 2013). The intrinsic value of culture is self-evident, but its transformative power, and social and economic benefits, especially in times of crisis, cannot be overstated, and it deserves to be supported at all levels.

COVID 19, described as the crisis of our generation, has threatened the health of everyone in all senses of the word. Vaccines and economic policies have saved lives and ameliorated hardships, but the overall health of the community is best preserved when its members are not only free from disease and suffering, but are motivated physically, emotionally, creatively, and spiritually to lead dignified and productive lives (Springboard for the Arts and Helicon Collaborative 2018). Herein lies the special place of culture in crisis. □

About the Author



Professor Tan Tai Yong is Professor of Humanities (History) and President of Yale-NUS College. He has published extensively on the Sikh diaspora, social and political history of colonial Punjab, de-colonisation and the partition of South Asia, and Singapore history. His latest publications include *Seven Hundred Years. A History of Singapore* and *The Idea of Singapore. Smallness Unconstrained*. He is Honorary Chairman of the National Museum of Singapore and serves on the National Heritage Board and National Library Board.

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The Four Horsemen

Ravi Menon

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Adapted from a lecture given by the author on 7 July 2021 as part of the Institute of Policy Studies-Nathan Lectures delivered at National University of Singapore, this essay explores four mega trends—demographics, inequality, technology, and climate change—that are already presenting both challenges and opportunities to humankind, and how Singapore is positioned to address these trends.

There are some fundamental changes sweeping across the world. *The Book of Revelation* speaks of four horsemen emerging at the dawn of the apocalypse. Interpretations of what they signify vary, but in most accounts the four horsemen symbolise conquest, war, famine, and death. If the horsemen represent fundamental changes to the old order, then the four horsemen today capable of bringing about such change are demographics, inequality, technology, and climate.

Ageing demographics, rising inequality, technological disruption, and climate change will together precipitate the biggest economic and societal transformation the world has seen since the Industrial Revolution. Whether they lead to apocalypse or provide the impetus for Renaissance depends on how the global community and individual nations respond to them.

The fifth horseman

Given what we are going through today, is there a fifth horseman that we should consider, that is, pandemic? Epidemics and pandemics have ravaged the world for centuries, with the bubonic plague in the Middle Ages estimated to have wiped out 30-60% of Europe's population. In the last two

decades we have seen epidemics caused by SARS, MERS, Ebola; to name a few. Since early 2020, the world has been battling the COVID-19 pandemic, which has infected more than 180 million people and taken nearly 4 million lives.

Are we on the cusp of a new age of pandemics? Increased interaction between humans and animals, urbanisation and overcrowding, global connectivity, even climate change, have emerged as risk factors for what some experts believe may be new pandemics occurring more frequently, perhaps every 10 years or so.

Even if we are not looking at more frequent pandemics, COVID-19 is here to stay. Earlier in 2021, the UK-based scientific journal *Nature* asked more than 100 immunologists, infectious disease researchers, and virologists working on COVID-19 whether the virus could be eradicated. Almost 90% of the respondents said no; instead COVID-19 will become endemic—meaning that it will continue to circulate in pockets of the global population for years to come (Philips 2021). Locking down large parts of the economy or closing borders in an effort to bring infections down to zero is futile.

In the endemic stage, COVID-19 will become less fatal or debilitating. Populations will acquire herd immunity against the virus from mass vaccination and extensive natural infection. Several effective treatments are now available that can reduce disease severity and mortality. In the endemic phase, the number of infections roughly stabilises and societies tolerate the seasonal illnesses and deaths they bring. In fact, seasonal flu still claims roughly 650,000 lives per year globally (World Health Organization 2017). Even in Singapore, seasonal flu is estimated to result in about 520,000 outpatient visits, 1,500

hospitalisations, and 600 deaths each year (Ng et al. 2002, 182; Ang et al. 2014, 1655; Chow et al. 2006, 118).

Countries that learn and adapt how to live in an endemic COVID-19 world will do better than those who do not.

The willingness of populations to get vaccinated will be a critical success factor. Estimates vary but countries will need to vaccinate 75-90% of their populations to reach herd immunity (D'Souza and Dowdy 2021; Weixel 2020). Herd immunity does not mean no one gets infected or no one dies of COVID-19; but by greatly reducing the risks of severe disease and death, it considerably enhances a country's ability to thrive in a world where COVID-19 is endemic. Unfortunately, misinformation has led to considerable vaccine scepticism in many parts of the world.

Countries that take a risk management approach and avoid the extremes of zero-tolerance or laissez-faire will do better. Countries that have chosen strategies of zero or very low tolerance for infections will have a hard time reopening their economies. Sound risk management is also key in responding judiciously to the occasional spikes in infections that will occur from time to time. Not imposing any safe management measures, especially if significant sections of the population have not been vaccinated, risks bringing on a renewed epidemic. On the other hand, closing borders and imposing lockdowns in response to every new outbreak will severely affect livelihoods with little or no gain in lives saved.

Singapore is well-placed to make the transition from pandemic to endemic COVID-19. Singapore's strategy for now is to contain new transmissions until the population is largely vaccinated. Letting up restrictions prematurely

will only prolong the pandemic situation, as many countries are tragically finding out. Moving on, we must learn to live with seasonal outbreaks with less draconian containment measures that minimise the impact on economic and social life. Testing, tracing, and therapeutics will be key to achieving this: testing to pick up new infections quickly; tracing to identify and contain potential clusters; and therapeutics to treat and restore to health those who get infected. We must aim to make the recovery rate for COVID-19 close to that of seasonal flu. Then, we can live without fear.

Our aim must be to restore economic and social activities to pre-COVID-19 levels. What will be different are likely a baseline level of safe management measures such as mask-wearing and safe distancing in riskier settings or periods of heightened alert; new social norms such as not coming to work when not feeling well; and improved ventilation and fresh air exchange in our buildings. Every sizeable organisation ought to have a business continuity plan in case some form of mobility restrictions is re-imposed. This will be a key dimension of economic resilience.

In fact, pandemic resilience could be a new source of competitive advantage for Singapore. In a post-COVID-19 future, there will be a premium on trust and stability, on countries that can handle crises well with minimal disruption to economic activity. Global business leaders who talk to the Economic Development Board (EDB) and the Monetary Authority of Singapore (MAS) opined that Singapore's handling of the pandemic has strengthened its relative position as a resilient place to do business.

Let me now move on to the four horsemen that are likely to have an even deeper and longer-term impact on the world and pose much larger challenges to Singapore.

The first horseman: demographics

The first horseman—demographics—is the most predictable of the four. His path is pre-determined and we know where he is heading.

The world is getting older. People are having fewer children and living longer. A half-century of evidence suggests that in all prosperous countries where women are well-educated and free to choose whether and when to have children, fertility rates fall significantly below replacement levels (Pradhan 2015; “A School for Small Families” 2019). Policy interventions by various countries to reverse the decline in fertility have generally not succeeded (Brainerd 2014). The combination of declining fertility and rising life expectancy means that in the next few decades, the population of most of the world outside Africa will plateau and begin to fall for the first time in modern history (United Nations Department of Economic and Social Affairs Population Division, n.d.).

The distribution of working-age populations across countries and regions will become highly unequal. In the next 20 years, it is projected that the proportion of the working-age in South Asia, Latin America, the Middle East and North Africa will be above 65% (United States National Intelligence Council 2021). But without adequate skills training and job creation, these countries will experience demographic burdens, not dividends.

As a corollary, various countries and regions will experience a dramatic rise in their old-age dependency ratios—the population aged 65 and

above relative to the working-age population. This will be sharply felt in the developed world. In Europe and North America, it is projected to rise to 49 older persons per 100 working-age persons by 2050, up from the current 30 (United Nations Department of Economic and Social Affairs Population Division, n.d., 11). The old-age dependency ratio is projected to more than double in East and Southeast Asia, from 18 in 2019 to 43 in 2050 (United Nations Department of Economic and Social Affairs Population Division, n.d.).

Rising old-age dependency ratios could hamper economic growth. The pool of retirees will grow faster than the labour force. A greater share of national income will need to be devoted to healthcare and other social and economic support for seniors. Shifting age structures pose the risk of many developing countries in Asia becoming old before they become rich, making the middle-income trap more likely.

Fertility rates far below replacement pose particularly serious challenges. The decline in the labour force will be sharp rather than gradual and there will be a growing number of the very elderly who will require some kind of mobility assistance and personalised care.

In Singapore, the fertility rate is only about half the replacement rate. Paradoxically, the public discourse on demographics has focused on whether the population is too large or growing too fast or whether there are too many foreigners. But more significant than the size or composition of the population is the age of the population, in particular the implications on the economy of a shrinking labour force and on society of a growing care gap for the very elderly.

Shrinking Labour Force

Singapore's working-age citizen population has begun to shrink. By 2030, the proportion of citizens aged 20 to 64 is expected to decrease from 63 to 56% (National Population and Talent Division 2020, 9). A shrinking workforce means that productivity growth is the only source of economic growth. Increases in automation, female labour force participation, and retirement age will help but this will not be enough to offset the demographic impact on economic growth.

Immigration and intake of foreign workers are one of the more effective ways to stretch out the effects of sharp labour force decline. This cannot be a permanent solution because eventually, there will be physical limits to the size of population that Singapore can accommodate. But immigration can help to smoothen the transition and reduce adjustment costs on the economy and society.

The key is integration. Too rapid a rate of immigration can threaten a country's sense of identity and create anxieties of being overrun by foreigners. Countries that are able to successfully integrate immigrants into their societies have better prospects of overcoming their demographic constraints. Singapore has always been among such countries, and we must remain so.

Growing Care Gap

Singapore is one of the most rapidly ageing countries in the world. By 2030, one in four Singaporeans will be aged 65 years and above, a marked increase from the ratio of one in six in 2020 and one in eleven in 2010 (United Nations Department of Economic and Social Affairs Population Division, n.d., 33; Department of Statistics Singapore 2021).

There will likely be a growing gap in caregiving for the elderly. Generally, the elderly of tomorrow are likely to stay healthy much longer than those today. But while fewer are likely to have chronic or debilitating conditions, more may become prone to the ailments of the very elderly, such as dementia and Alzheimer's. Between 2000 and 2020, the number of residents aged 65 years and over who had mobility issues nearly doubled from around 25,500 to 50,000 (Ministry of Health 2021).

The second horseman: inequality

The second horseman—inequality—is the most prominent and talked about horseman. He poses one of the biggest social, economic, and political challenges of our time.

Dispersion in income growth is a global phenomenon. In the US, there has been a sharp divergence in wage growth between the two ends of the income distribution. According to a recent Brookings report, between 1979 and 2018, the average real hourly wage of the bottom 20% of the income distribution had more or less stagnated (Nunn and Shambaugh 2020). By contrast, the income of the top 1% in the US had risen sharply, by 160% in the same period (Mishel and Kandra 2020). Along with its spectacular growth, China has also seen the world's biggest and fastest rise in inequality. A study by the China Development Research Foundation suggests that China's Gini coefficient has surged from less than 0.3 in 1978 to more than 0.48 in 2012 ("Crony Tigers, Divided Dragons" 2012).

Technology and globalisation have been cited as the proximate drivers of the rise in income

inequality. Of the two, globalisation is blamed more often but many economists believe that skill-biased technological change is the main driver of income inequality. Technological change has dampened the demand for lower-skill workers. By expanding opportunities for offshoring production, globalisation has had strong displacement effects in localised settings but its impact on inequality has probably not been as pervasive as that of technology.

A certain degree of income inequality is inevitable and even desirable in a market economy. Differences in rewards are necessary to spur effort and enterprise, and unequal outcomes that reflect unequal abilities are generally accepted by most people. I would suggest that inequality becomes socially unacceptable and economically inefficient when it leads to increased poverty, middle class stagnation, a growing wealth gap, or reduced social mobility. These four outcomes imply a certain permanence and erode that critical ingredient for personal endeavour—that is, hope for the future.

Increased Poverty

The central economic challenge for a very large part of the world's population is poverty not inequality. As the late American economist Martin Feldstein puts it, the emphasis should be on eliminating poverty, and not on the overall distribution of income or the general extent of inequality (Feldstein 1999, 33).

Indeed, in many developing countries, alleviating poverty is a higher priority than reducing income inequality. And rightly so. In many of these countries, economic growth has been the single most powerful factor in alleviating poverty. Growth has lifted hundreds of millions of people out of poverty in the last 50 years, in China, India, Indonesia, and others.

In the developed countries, poverty is lower, more stable and not as responsive to economic growth. The US appears to be somewhat of an outlier, where the poverty rate rose significantly in the wake of the recession caused by the 2008 global financial crisis, and early research suggests that the poverty rate rose again during the COVID-19 pandemic (Han, Meyer, and Sullivan 2021). The US poverty rate seems particularly sensitive to recessions, with some research pointing to weak US social safety nets as a key factor (Gould and Wething 2021). European countries have had relatively more stable poverty rates through business cycles, with their stronger social safety nets.

Developed countries, including high-income ones like Singapore, should set ambitious targets for reducing poverty. There is probably very little absolute poverty in Singapore. Nonetheless, it is important that the wage gap between those at the lower deciles of the income distribution and the median wage earner is not unduly large.

Middle Class Stagnation

A thriving middle class is a necessary condition for the stability of society and durability of democracy. The gradual erosion of trust in the economic and political system that we see in many advanced economies is due not so much to the widening gap between the rich and the poor but to the stagnation of the middle class. Some estimates suggest that there has been hardly any increase in real median wages in the US since the mid-1970s (DeSilver 2018; Galka 2017; Gould 2020). In the UK there has been similar stagnation (Cominetti 2020; Blanchflower and Machin 2014, 20).

Focusing on the divergent demands for various mid-level skills is more insightful than merely looking at income deciles. There are important

differences within the mid-wage brackets that we should recognise. What has been declining in many advanced economies is the traditional middle of the job market, composed primarily of construction, production, and clerical jobs that do not require a high degree of skills. In the US, the secular decline in manufacturing employment due to technological change has been associated with wage stagnation in the middle class (Sandbu 2020). But demand for another set of mid-level skills is growing in areas such as healthcare, education, mechanical maintenance and repair, and some high-touch social, recreational, and community services.

Singapore's experience on median wages has not been bad. Real median wages increased by an average 2.6% per annum from 2011 to 2020, higher than the 1.2% annual growth between 2001 and 2010¹. Sustaining healthy growth in median wages through active labour market policies will be important to give the broad middle of society hope and confidence in the future.

Growing Wealth Gap

Wealth inequality has most likely worsened more than income inequality. According to the British economist Adair Turner, average wealth-to-income ratios have gone from around 300-400% in 1970 to about 600% in 2014; it must be even higher now (Turner 2014, 1). According to the Global Wealth Report, millionaires make up 1% of the global adult population but account for 43% of global net worth (Shorrocks, Davies, and Lluberas 2021, 25).

Wealth inequality is more pernicious than income inequality. If wealth were merely the accumulation of savings from income, then inequalities in wealth would largely reflect inequalities in income. The work of Thomas Piketty suggests there has been a

lot of wealth accumulation without any significant increase in saving (Piketty 2014, 219–20). This is because the prices of assets that form wealth have risen faster than the prices of current goods and services that enter income.

The key driver of wealth inequality in many countries is the rising price of urban land. According to Adair Turner, real estate has grown significantly as a source of wealth in the last 40 years, accounting for more than half of all national wealth in the UK and France. In both countries, the increase in the wealth-to-income ratio over the last 40 years has been significantly driven by the rise in real estate values or property prices (Turner 2014, 11).

Property price increases are driven by both consumption and investment demand. As their incomes rise, people devote an increasing percentage of their disposable income to purchases of property in so-called prime locations, which are limited in supply. Over time, this tends to lead to house prices rising faster than incomes. This in turn stimulates investment demand for housing in the pursuit of capital gains. Globally, property has become an investment asset class. Getting on the housing escalator to get rich has become a trend across the major urban centres of the world: London, Sydney, Vancouver, Los Angeles, Dubai, Hong Kong, Singapore, and many more.

In almost all societies, wealth is far more unequally distributed than income. As the ratio of wealth becomes more important relative to income, income inequality further increases. Market processes are allocating an increasing share of national income to income from property and other financial assets and a reducing share to income from work. This is a development that we should be deeply concerned about.

Reduced Social Mobility

Rising income inequality can lead to reduced social mobility. The evidence is rather mixed on whether income inequality has directly reduced social mobility. On the other hand, income inequality has very likely increased disparities in health, education, skills levels, and subsequent labour mobility—all of which have an impact on social mobility. A highly skewed income distribution could translate into less equality of opportunity for the next generation. This seems to be happening. Among the rich nations for which studies have been done, those with greater income inequality tend to have less mobility across generations (Corak 2013, 82).

We must avoid the risk of a hereditary meritocracy. The word “meritocracy” was coined in the 1950s by Michael Young, a British sociologist. Even then, Young had warned that the incipient meritocracy to which he had given a name could be as narrow and pernicious in its own way, as the aristocracies of old. The condition of one’s birth should not overly determine the outcome of one’s life.

The paradox at the heart of the new meritocracy is that how far one goes in education determines how far one goes in life. According to Claudia Goldin and Lawrence Katz from Harvard University, differences in educational attainment explain 60% of America’s widening wage inequality between 1973 and 2005 (Goldin and Katz 2009, 26–27). This was attributed to the rising wage premium to education and the soaring cost of college education in America. In short, income inequality is being driven by inequality in human capital.

As the importance of human capital grows, meritocracy itself is at risk of becoming heritable, where the elite reproduce themselves. People are

naturally good—some would say biologically programmed—at passing on their privileges to their children. According to Sean Reardon of Stanford University, recent decades have seen a growing correlation between parental income and children’s test scores (Kim 2018). Educated and successful men and women tend to marry one another. Such assortative mating increases inequality by 25% by one estimate (Greenwood et al. 2014, 351). Such couples typically enjoy two large incomes, provide stable homes for their children, and stimulate them relentlessly from birth with enrichment classes.

Public policies can play a key role in mitigating the adverse effects of income inequality. The key measures are well-documented in studies by the International Monetary Fund and Organisation for Economic Co-operation and Development: improving education and skills training; improving access to healthcare; higher infrastructure investment; expanding financial inclusion; increasing labour market flexibility and mobility; and encouraging participation in labour markets across genders and age. These are essentially what Singapore has been doing, with a fair degree of success. But with the acceleration of technological change, labour markets will need to be even more dynamic and flexible, characterised by a high degree of job destruction, creation, and mobility. This will probably require more protection and security for workers than we currently have in Singapore.

The choice is not between growth and distribution. Some people believe that rapid economic growth has been one of the causes of inequality. The reality is that lower economic growth will not improve inequality and will only make redistribution more difficult. Faster growth per se does not create inequality. It is the singular pursuit of growth unaccompanied by measures to facilitate a more

even distribution of its benefits that worsens inequality. Such growth will eventually prove unsustainable if a large segment of the society feels left behind. Likewise, carefully designed policies to reduce inequality will not necessarily reduce growth.

The third horseman: technology

The third horseman—technology—is the fastest. He is galloping way ahead of the others.

I think the four general-purpose technologies that could have the biggest impact are artificial intelligence (AI); robotics; the Internet of Things (IoT); and blockchain technology.

Probably the most impactful will be AI—algorithms that are designed to continuously learn from the data that they gather and be able to programme themselves to perform new tasks. AI is being used to process vast quantities of data and recognise patterns. Computers using AI are now trading financial assets and operating motor vehicles; they are even writing clean prose and composing music.

Robots are gaining the dexterity to do complex manual jobs. There are robots that are now able to stitch a sliced grape back together or de-bone a chicken wing; these technologies are already being used to perform delicate surgery.

IoT is already ubiquitous. We see it most commonly in the form of mobile phones. They are essentially devices embedded with sensors or software to connect with other systems and devices. Data from IoT devices is making possible the real-time tracking of goods along supply

chains and continuous management of risk in financial services. The potential of IoT devices will increase dramatically as 5G networks and edge computing capacity picks up over the next decade. As more industries become IoT-enabled, new business models will emerge.

Blockchain technology is still nascent but has transformative potential if it can be scaled. Public blockchain is already being used to coordinate inter-company processes. It may have the potential to enable digitised economic and financial transactions across the world, 24/7, in real time. Exchange of value can be as seamless as sending an email. Tokenisation—representing an asset through a smart contract on a blockchain—can make possible the monetisation of many assets whose economic value is currently unrealised, such as unused file storage, computing power, and energy credits. This can unlock latent capacity in the real economy.

A digital economy is emerging and data is its lifeblood. The application of these various technologies is bringing about digitalisation. Within the 2010s, the accumulated universe of data surged from about 1 trillion gigabytes to nearly 50 trillion. According to McKinsey Global Institute, data flows account for about 3.5% of the world's Gross Domestic Product (Bughin and Lund 2017). The growth in computational power and vast increase in the volume of data available have enabled data-driven decision-making, using granular, real-time data, including unstructured information, such as social media postings. Driven by consumer demand and innovative firms, digital connectivity seems likely to accelerate, further enhancing the centrality of data to social and economic life.

The COVID-19 pandemic has given a significant boost to digitalisation. Many more people are now comfortable with digital interactions, and

remote working models are proliferating. The pandemic has also provided an added reason for digitalisation—resilience. Having a digital back-up in case human mobility or physical contact is restricted has become a key feature of business continuity planning.

Digitalisation has on balance been democratising. Yes, there is a digital divide—between those who have access to digital technology and those who do not. But on balance, digital technology has probably enabled more inclusion than it has created exclusion. The beauty of digital technology is its ease of access through the mobile phone, the internet, and broadband connectivity. There were 2.5 billion smartphone users in the world in 2016; as of 2020, that number has jumped to 3.8 billion (Bankmycell n.d.). Online digital platforms provide access to the smallest as well as the biggest players; they allow upstarts to build business models with global scale.

Notwithstanding the substantial benefits, the social license for continued digitalisation will depend on how countries address three issues relating to technology—the data dilemma, cyber threats, and the impact on jobs.

The Data Dilemma

The aggregation and extensive mining of data have promoted economic inclusion and opportunity. Firms are able to better understand their customers, deliver more customised services at lower costs, and reach out to previously underserved customers.

But this data revolution is being propelled by a handful of digital giants with monopoly powers. A small group of American and Chinese software companies, such as Alibaba, Amazon, Google, Facebook, and Tencent, have leveraged first-mover advantages and network effects to become the

monopoly facilitators of data flows. Their ability to gather huge amounts of data through their pervasive platforms and to control this data has created an entry barrier for potential competition. They have considerable influence on society through their control of the platforms on which people and firms interact with one another.

This then is the data dilemma: how do we harness the benefits of data aggregation while ensuring a competitive playing field and that individuals' personal data are not misused?

Countries that get their data policies right are better placed to grow the digital economy. This means implementing sensible data governance policies that protect personal data while not impeding innovation and inclusion. Data aggregators should adopt the principles of transparency, fairness, and accountability in the use of data. The growing Web 3.0 movement has already seen the private sector create platforms that enable more open and equitable access to data.

Control over data and digital platforms has also become a subject of contestation among nation states. Many developed countries are seeking to tax cross-border digital transactions; many developing countries are imposing data localisation requirements that prohibit the cross-border transfer of data. Excessively taxing digital transactions or prohibiting the sharing of data will increase business costs, reduce efficiency, and curtail firms' ability to serve their customers better.

What we need more is data connectivity not data localisation. In the digital economy of the future, data connectivity agreements among countries will become as important as today's free trade agreements. Singapore is off the starting block, initiating digital connectivity agreements with some like-minded jurisdictions. These

could become pathfinders for broader international data agreements.

The world needs a new Digital Bretton Woods. Just as the rules for international trade and finance were set by the Bretton Woods agreements following World War Two, we may need a new set of global rules to govern international data flows and exercise oversight of data monopolies. This will help to provide the foundation for a sound and vibrant global digital economy.

Cyber Threats

The incidence, scale, and complexity of cyber attacks have been on a growing trend. Recent attacks on major organisations globally such as Colonial Pipeline, SolarWinds, and Microsoft are powerful reminders that the fallout from a cyber attack can be far-reaching. Not content with corrupting a victim's data using crypto-ransomware, cyber attackers are now exfiltrating information from the victim. Cyber criminals are also targeting major third-party information technology vendors and attacking supply chains to infiltrate the systems of multiple entities.

Breaches in sensitive connected systems can lead to serious consequences. Large-scale cyber attacks that succeed in shutting down the electricity grid, telecommunications network or interbank payment system can have systemic consequences across the economy and society. Critical infrastructure systems are especially at risk from nation states and terrorist groups seeking to obtain classified information or disrupt vital operations.

Digital defence is already a sixth limb of total defence in Singapore. Singapore is in a better place than most countries with a national Cyber Security Agency overseeing a network of sectoral agencies with oversight of the critical

infrastructures within their respective sectors. But cyber defence is a work-in-progress. Businesses today are responsible for the security of their premises but they do not take measures to defend themselves against an airborne missile attack from abroad—that is the job of the armed forces. How different from a missile attack is a sophisticated, state-sponsored cyber attack? Should we explore a more integrated cyber defence architecture combining the civilian and the military?

A Digital Bretton Woods could include setting out protocols for behaviour in cyber space. It could also include frameworks for cyber defence, and maybe even rules of cyber engagement. It will not be easy, as nation states themselves engage in cyber espionage and cyber attacks. Is there potential for Singapore, as a trusted, competent, and progressive jurisdiction, to play a facilitative role in shaping such an international architecture?

Impact on Jobs

Technology has been changing the nature of work and skills for over 200 years. In the 1750s, the rise of industrial technology devalued the skills of artisans but benefitted millions of less-skilled workers who only had to focus on small portions of an extended process. In the 1980s, information technology began to take over medium-skilled work, such as back-office jobs. We are now witnessing the advance of technology across the skills spectrum: automation for routine work; robotics for manufacturing activities; blockchain for intermediation services; and AI for knowledge work.

The impact of technology on jobs will be uneven across industries. Robotic automation is proliferating in manufacturing, and e-commerce is transforming retail trade. Autonomous vehicles and drones will put at risk jobs linked to driving vehicles to move people or goods. But

will there be new jobs to complement or service the robot economy? Or will robots repair robots? We do not know.

With growing automation, we should think tasks not jobs, skills not occupations. Historically, what technology displaces are not jobs and occupations per se but tasks and skills. The introduction of the printing press reduced the value of scribing skills but increased the value of publishing and dissemination skills. The advent of the internal combustion engine eroded the value of horsemanship skills but created value for driving skills. Today, the emergence of search engines is shifting value from knowledge-gathering skills to knowledge application skills. Technology is unlikely to eliminate a large number of jobs; rather, it will affect portions of almost all jobs to a greater or lesser degree, depending on the type of tasks involved in these jobs.

There are sectors with skills requirements that are likely to be affected by technology in a positive way. Jobs where automation is more likely to be human augmenting rather than replacing include those in education and training, healthcare, and social work activities. Such jobs require significant cognitive and social intelligence and a knowledge of human heuristics.

Reducing the need for human labour is not entirely a bad thing, especially in labour-short Singapore. Can robots transform the construction and cleaning industries and reduce Singapore's dependence on foreign labour?

The key to a good outcome for jobs is to intertwine human and technological capabilities. This is of course easier said than done. But the competition from machines has brought to the fore two quintessentially human qualities: imagination and empathy. When machines can do more of what we do today, we will do in our jobs more of

what makes us essentially human: to think and create, to feel and connect.

Creative imagination is likely to remain the preserve of humans, for at least quite some time. Computers have started to display signs of creativity. IBM's AI cooking application, Chef Watson, for instance, reads thousands of existing recipes, and is trained to create combinations that people are likely to find delicious but do not know about (Brandt 2017; Kleeman 2016). But while computers can come up with novel answers that humans cannot, they still operate in a fixed domain, solving defined problems. In practice, problems change as we try to solve them. When it comes to asking new questions or regard old problems from a different angle, the human imagination still has a distinct advantage.

Humans are social creatures, capable of empathy. While robots are starting to understand human emotions through facial expressions, they cannot offer the deep interpersonal connections that we crave. There will still be a premium placed on hearing our diagnoses from a doctor, even if a computer supplied it, simply because we want to talk about it with another human. As mechanical tasks and even some cognitive tasks become commoditised, perhaps the scarcest resource will be relationship workers—those who excel in building bridges with others. Computers cannot weigh ethical dilemmas and grey areas. On such matters, humans have to remain at the centre of accountability.

Human imagination, empathy and accountability cannot be automated away. In an almost ironic way, technology may well help to make us more conscious of what it means to be human and make us better human beings.

When nothing is certain, everything is possible. Technology will disrupt our familiar ways. But

individuals and businesses, facilitated by sound public policies, need to face this challenge not with anxiety but a sense of adventure.

The fourth horseman: climate change

Of the four horsemen, climate is the one that poses an existential challenge. He is the most complex and his trajectory is highly uncertain and difficult to assess.

Climate change is already happening. Atmospheric concentrations of carbon dioxide have reached the highest levels in 800,000 years (Loria 2018). Over the last three decades, the number of climate-related disasters has tripled (OXFAM International n.d.). Global sea levels have risen 20 centimetres over the past century, with the rate of increase doubling in the past two decades (Lindsey 2021). The increase in global average temperatures has already reached 1 degree Celsius above pre-industrial levels (Met Office United Kingdom 2015). Extrapolating current trends in greenhouse gas emissions, global temperatures are expected to rise by over 3 degrees Celsius above pre-industrial levels by 2100 (Tollefson 2020; Climate Action Tracker n.d.). In fact, we may have already crossed some climate tipping points that could trigger self-perpetuating loops and unleash a domino effect.

If the current emissions trajectory continues, the world will most likely experience climate catastrophe. The damage to human and natural systems will be severe and likely irreversible. This includes rising sea levels, frequent natural disasters, extreme wet and dry seasons, higher incidence of vector-borne diseases, decline in food supplies, and reduction of biodiversity. According to the Network of Central Banks and

Supervisors for Greening the Financial System, global GDP could be 15-25% lower by 2100 due to these impacts (The Central Banks and Supervisors Network for Greening the Financial System 2020, 8).

How the world responds to the climate challenge will determine the future of generations to come. To avoid the most severe effects of climate change, global greenhouse gas emissions must come down 45% by 2030 and reach net zero around 2050 to keep global warming to within 1.5 degrees Celsius above pre-industrial levels (Rowling 2020; Chestney and Chung 2018). This is what 195 countries resolved to do as part of the Paris Agreement in 2016.

There is a renewed sense of urgency and commitment to the climate agenda. Despite the COVID-19 pandemic, 2020 witnessed an unprecedented number of commitments to carbon neutrality and net zero emissions—by governments, corporations, and other institutions (Holder 2020; United Nations 2020). Perhaps the pandemic has sensitised us to how closely our lives are intertwined with our environment and how fragile our natural ecosystem is.

Beyond commitments, concerted action is necessary for the world to make the transition to a sustainable future. Long-term ambitions need to be translated into tangible policies and early actions. To reach net zero by 2050, the world needs to start significantly reducing emissions now. The International Energy Authority has released the world's first comprehensive roadmap on how sectors can transition to a net zero energy system by 2050 while ensuring stable and affordable energy supplies and enabling economic growth (International Energy Agency 2021).

Singapore is firmly committed to doing its part in the global effort to reduce greenhouse gas

emissions. Earlier this year, the government launched the *Singapore Green Plan*, which sets out a road map towards sustainable development, a green economy, and net zero emissions. Singapore aims to peak carbon emissions around 2030 and to achieve net zero as soon as viable after 2050. We may need to raise our climate ambition in the coming years.

Climate change presents physical and transition risks to economies and societies. Physical risk arises from the impact of climate-related natural catastrophes and widespread environmental degradation. Transition risks arise from the process of adjustment to an environmentally sustainable economy, including changes in public policies, technological developments in renewable energy, and shifts in consumer and investor preferences. Increases in carbon prices and an energy reset towards renewables are likely to be among the more impactful developments.

Physical Impact

The physical impact of climate change is likely to be multi-directional and varied across regions. Wet places are likely to become wetter and dry places drier. Tropical countries are expected to experience the most severe impacts of climate change. At the same time, rising temperatures in the polar regions of the world could have potentially devastating consequences for sensitive ecosystems across the planet. The distribution of arable land, freshwater resources, and land and sea connectivity could potentially be altered.

The speed, scale, and impact of global warming are highly uncertain. This reflects the complexity of the climate system and its interactions with humanity. In fact, some scientists believe that global warming may well usher in a new ice age (Calvin 1998, 59). The melting of the polar glaciers will not only raise sea levels but also reduce the

salinity of the oceans that could in turn lead to changes in the patterns of ocean currents. If the Gulf Stream, which circulates warm waters across the North Atlantic Ocean, stops functioning, parts of western Europe and the east coast of the US and Canada could potentially experience Arctic conditions (Cho 2017).

As a low-lying tropical island, Singapore is at significant physical risk from climate change. With most of the country lying just 15 metres above sea level, the risk of coastal inundation and inland flooding is real. According to the Centre for Climate Research Singapore, by the end of the century, daily mean temperatures will increase by 1.4 to 4.6 degrees Celsius and mean sea levels will rise by 0.25 to 0.76 metres (National Climate Change Secretariat 2016, 4). To mitigate some of these impacts, we have begun to take measures such as using technology to reduce urban heat, diversifying our water supply in case of dry spells, and building polders to protect our coastline against sea level rise.

Carbon Prices

Carbon pricing is gaining momentum. There are 64 carbon-pricing initiatives in the world today, with 35 of them being carbon taxes and 29 emissions trading systems (The World Bank 2021). Today, most of the jurisdictions that have implemented carbon pricing have carbon prices below US\$50 per tonne of carbon dioxide equivalent, with the exception of the Scandinavian countries (The World Bank 2021).

However, to put the world on a trajectory towards achieving the Paris Agreement goals, carbon prices will need to be much higher. According to the High-Level Commission on Carbon Prices led by economists Joseph Stiglitz and Nicholas Stern and recent estimates by the Network for Greening the Financial System, carbon price

needs to increase to between US\$100 and US\$160 per tonne of carbon dioxide equivalent by 2030 (Carbon Pricing Leadership Coalition 2017, 3); The Central Banks and Supervisors Network for Greening the Financial System 2020, 15). Recently, IMF staff have proposed a three-tier carbon price floor among the largest emitters in the world, at US\$25, US\$50, and US\$75 per tonne (Parry, Black, and Roaf 2021, 11). If large emitters agree on a global minimum carbon price, there is likely to be a convergence globally towards that price. Carbon-intensive exports from countries with lower carbon prices may be subject to carbon border adjustments in importing countries with higher carbon prices.

Singapore is the first country in Southeast Asia to implement a carbon tax. But at S\$5 or US\$3.75 per tonne of greenhouse gas emissions, it is far below what is needed to catalyse carbon mitigation efforts.

Higher carbon prices will have a significant impact on many industries globally. Activities such as power generation from fossil fuels, production of steel and cement, and building and construction, will experience outsized impacts given their current reliance on emissions-intensive inputs and processes. In the electric utility sector, for instance, profits at risk could be as much as 90% of margins by 2030 (Cuff 2018). There will be knock-on impacts downstream, as these activities form the basis for a good part of the economy.

Energy Reset

The global transition from hydrocarbons to renewable energy is gaining momentum and is likely to accelerate. The cost of renewable energy has fallen dramatically over the past decade. While fossil fuels remain the dominant source of energy production, the amount of power generated

through wind and solar is rapidly catching up to that generated by coal (International Renewable Energy Agency 2021, 13, 20). Coal power plants are being phased out around the world. But oil and natural gas are likely to remain major sources of energy production until 2040 (U.S. Energy Information Administration 2020, 4).

The energy reset will be particularly challenging for Singapore because our natural endowments disadvantage the harnessing of renewable energy. We do not have the land space necessary to tap solar or wind energy, or fast-flowing rivers for hydro-electric power. Singapore needs to be highly innovative to overcome these disadvantages. Using our reservoirs, we are opening one of the world's largest floating solar energy systems. We are exploring transmission lines to neighbouring countries to tap on and trade in the renewable energy they produce. We will need many more of such innovations in the years ahead.

Transitioning to a net zero economy also opens up opportunity in the green economy of the future. Countries with the technological capabilities and fiscal resources will be able to seize opportunities brought about by transition. Singapore is well placed to thrive in a green economy, provided we make some bold, decisive moves. We will need a whole-of-nation effort to make the transition to a sustainable future.

The Singapore Synthesis

The four horsemen are riding through Singapore. Many of their adverse effects cannot be avoided. But if we set our minds to it, Singapore has what it takes to mitigate the downsides, seize the opportunities, and create a better world.

Singapore's remarkable development as an economy, as a society, and as a nation, was made possible by a synthesis of an eclectic mix of policies and approaches. As an economy, Singapore has judiciously combined the invisible hand of markets with the enabling hand of the government to deliver First World prosperity. As a society, it has enshrined meritocracy as the guiding principle while achieving considerable equality in educational and economic opportunity. As a nation, it has been one of the most international in orientation while assiduously building a distinct national identity and ethos.

There has been an overall coherence across policies, a synergy across the various parts: the Singapore Synthesis. Three attributes form the cornerstone of the Singapore Synthesis:

- Adaptation—an ability to adopt best practices from around the world
- Competition—an emphasis on letting the market determine outcomes
- Pragmatism—a focus on what works in practice rather than in principle

These attributes have been decisive in Singapore's success to date and will remain critical for Singapore's future in the face of the four horsemen. But they may not be enough. Adaptation without innovation descends into stagnation. Competition without inclusion degenerates into elitism. Pragmatism without inspiration deteriorates into expediency. We need a refreshed Singapore Synthesis, one that not replaces but enhances the old Synthesis.

The new Singapore Synthesis must pivot towards more innovation, inclusion, inspiration. In the face of the challenges posed by the four horsemen, we need to be more of an innovative economy, an inclusive society, and an inspiring nation. They are about how we make a living; how we build a community; how we find our purpose. □

About the Author



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Mr Menon was previously Permanent Secretary at the Ministry of Trade and Industry (2007–2011), where he implemented measures to support the economy during the Global Financial Crisis; and Deputy Secretary at the Ministry of Finance (2003–2007), where he reviewed how the government should invest and spend its foreign reserves.

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An active participant in international central banking and financial regulatory communities, Mr Menon is a member of the G20's Financial Stability Board (FSB) Steering Committee, and previously chaired the FSB's Standing Committee on Standards Implementation (2013–2017).

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Notes:

1. Nominal wage data is from Gross Monthly Income From Work (excluding employer Central Provident Fund contributions) of full-time employed resident workers, Comprehensive Labour Force Survey, Ministry of Manpower, Singapore. Real wage growth data are Monetary Authority of Singapore staff estimates, obtained from deflating nominal wage growth by All-Items Consumer Price Index.

War and Its Art in Southeast Asia

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The arts and culture are an age-old medium for the documentation, interpretation, and reimagining of crises. War has always been a common theme in such uses of arts and culture across civilisations. The author examines the depiction of war in Southeast Asian art and cultural objects and notes the shift from glorification of war to a more critical and realist perspective.

War between, or within, societies, kingdoms, empires, and today's nation-states are critical events in history. They are existential challenges to societies. They are the material for great epics like the climactic battle at Kurukshetra between the Pandava and their Kaurava cousins for the throne of Hastinapura in the *Mahabharat*, which is vividly remembered in the old Javanese poem *Bharatayuddha*. Wars make heroes and heroines like Queen Suriyothai who was killed

in an elephant duel with the Burmese invader Tabinshwehti to save her husband King Maha Chakkraphat in the first Burmese-Siamese War (1547-1549).

Artists have joined bards and scribes in recording the drama of war as an existential crisis for its actors. Visuality, orality, and textuality complement to record, valorise, glorify, honour, and decry war. This essay reviews the art of depicting war in Southeast Asia.

The bas-reliefs of Angkor

The very large bas-reliefs carved on the walls of the third enclosure of Angkor War (le Bonheur and Poncar 1995) rank as one of the most



Figure 1. Bas relief of Arjuna on his chariot leading the Pandavas to battle the Kauravas, Angkor Wat temple. Plate 519 of *Le Temple d'Angkor Vat, Troisieme Partie, La Galerie des Bas-Reliefs, Memoires Archeologiques Tome II*. Paris: Les Editions G. Van Oest, 1932.

impressive depictions of war. As the visitor climbs the steps to enter the third gallery of Angkor Wat, he encounters on his right the wall of the southern wing of the western gallery with a large panel bas-relief. The relief depicts the battle of Kurukshetra. On the left half of the panel near the western entrance to the enclosure, which the visitor has entered, is the Kaurava army. Opposing them on the southern half of the panel are the Pandavas. They engage in battle at the exact centre of the panel. Guided by the moral authority of the four-armed Krishna, the sons of Light, the Pandavas, emerge victorious over the sons of Darkness, the Kauravas.

If the visitor looks to his left, he will see a large panel depicting the great battle of Lanka in the *Ramayana*. Rama, standing ready for battle on the shoulders of the divine monkey Hanuman, and his army of monkeys are all on foot, while the demon Ravana and his troops are mounted on ornate war chariots. The relief vividly captures the melee of battle, with the monkey warriors ripping Ravana's troops with their hands and teeth.

The other three walls of the third enclosure depict on the southern wall a ceremonial procession focusing on Suryavarman II, to whom Angkor Wat is dedicated, leading a victory parade or his kingdom to new glories. The other half of this southern wall shows the procession on the road to heaven or to the thirty-two hells, with the God of Time and Eternal Death, Yama, seated on his mount, the buffalo, passing judgment on whether one goes up to heaven or down to hell. On the wall of the eastern gallery is probably the most well-known bas-relief of Angkor Wat illustrating the Vishnavite myth of Vishnu presiding over the Churning of the Ocean of Milk to create *amrita*, the elixir of immortality. Next to it is a panel about the victory of Vishnu over the *asuras*, a class

of demonic demigods, to regain the elixir *amrita* which the asuras stole after churning the ocean of milk. Finally, on the enclosure's northern wall are two panels about the victory of Krishna/Vishnu over the *asura* Bana as narrated in several texts. The western half of the northern wall is given to an epic battle between 21 great Hindu deities doing battle with the asuras.

Suryavarman's glorification of war on the massive bas reliefs of Angkor Wat was the precedent for Jayavarman VII to similarly valorise his wars with Champa, a kingdom on the coast of south Vietnam, on the walls of the outer gallery of the Bayon, another temple in the Angkor complex. The reliefs show Cham warriors marching or rowing their canoes to battle with the Khmers in a forested terrain. As at Angkor Wat, the existential crisis of war has been elevated to a divine level between the Khmers as *devas*, celestial beings, and the Chams as *asuras*.

The valorisation of war continues to the present. Myanmar's military, the Tatmadaw, installed 10-metre high statues of the country's three great warrior kings: Anawrahta (1044-1077), Bayinnaung (1551-1581), and Alaungpaya (1752-1760) who pushed Myanmar's historic borders to its furthest extent, to overlook the parade square of their headquarters in the capital Naypyidaw. They are a constant reminder to parading Tatmadaw forces of what war and conquest have achieved for Myanmar (Preecharushh 2009, 124-25).



Figure 2. *Painting of the Battle between Queen Suriyothai and Viceroy of Prome/ Pava* by Prince Narisara Nuwattiwong. 1887. Located in Bang Pa-In Royal Palace, Thailand. Image source: Wikimedia Commons.

Queen Suriyothai's heroic 1548 elephant duel with the forces of invading Burmese King Tabinshwehti (Bayinnaung's predecessor) to save her husband King Maha Chakkraphat was forgotten for the 350 years until Prince Damrong Rajanubhab recalled it in his account of Thailand's twenty-four wars with the Burmese during 1539 to 1767. Prince Damrong's *Thai Rop Phama* first published in 1917 has made Thailand's wars with the Burmese a defining narrative of Thai history and raised Queen Suriyothai to become a national heroine now glorified in paintings, public sculptures, and more recently, films.

The National Monument in Malaysia is a 15-metre high bronze sculpture depicting four soldiers in battle positions with one wounded colleague and two dead enemies. It is a war memorial to those who died fighting the Japanese in World War Two and the Malayan Communist Party during the Malayan Emergency (1948-1960). All these public sculptures are commemorations of heroes and a heroine by the modern nation states.

Art however not only commemorates and honours war, but also records the tragedy and pathos of war. This tension between romanticising war and mourning it as a tragedy in the art of representing war in Southeast Asia is played out in the 20th century revolutionary wars for independence. The turn in perspectives was enabled in large by the shifts in art education and styles, from the academic realism which the region's pioneering artists represented by Raden Salleh and Juan Luan were inducted into, and the post-impressionism represented by the Mooi Indie paintings, to the social realism of the early 20th century (Flores 2010).

In Vietnam, a generation of L'École des Beaux-Arts d'Indochine trained artists, led by To Ngo Van, and his students like Mai Van Hien, offered their talents to serve the revolution, designing posters supporting the revolution, and documenting through their art the struggle against the French (Taylor 2009, 42–63).



Figure 3. *Seko* by S. Sudjojono. 1949. Image courtesy of the S. Sudjojono Center.

In Indonesia, a generation of artists including Affandi, Basoeki Abdullah, and Hendra Gunawan sought to capture the revolution in paintings of not only its heroes, but also the spirit of the revolution in daily life. The largely self-taught artist S. Sudjojono stands out in this attempt to depict the revolution in an increasingly social realist style of painting. His 1949 *Seko I* foregrounds a guerrilla reconnoitring the ruins of the town of Prambanan set against a background of a dark threatening sky, positioning the heroism of the guerrilla scout against the realism of the revolution (Spanjaard 2003, 73–90).

It is however during the second Indochina War that the tension between art in the service of state valorisation of war, and visualisation of the tragedy and pathos of war in paintings, sketches, and especially photographs and films,

is played out. North Vietnamese artists working in the socialist realism tradition portray in their paintings and posters the heroism of their troops and leaders in an ordered battlefield, sans blood and gore. This contrasts with American artists depicting the chaos and horror of combat in what is for them a senseless war.

The camera and film transformed the depiction of war in Vietnam. The “realism of oil” lost out to the photographic image. Ron Haeberle’s series of photographs of the 1968 massacre at My Lai are a more powerful rendering of the fear and terror of the My Lai villagers as they are being shot than any painting can capture. The art of the photograph transformed our perceptions of state valorisation of war. Film further shifted our understanding of war. Francis Coppola’s award-winning classic 1979 film *Apocalypse Now* (E.

Coppola 1995; F. Coppola 2001) is a landmark portrayal of the mindlessness and madness of the Vietnam war through the film's central figure, the demented Colonel Walter E. Kurtz.

In conclusion, this essay has explored how art has helped visualise war as an existential crisis to those caught up in it.

The reliefs of the Bayon more vividly depict the Chams as the existential threat to Angkor than any Sanskrit epigraphy inscribed in the temple walls could. Similarly, the political messages of today's public sculptures of war heroes define clearly the enemy these heroes died fighting against. But has this glorification of war in public sculptures of war heroes and heroines today rallied us to commemorate war as a rallying point in times of crisis? Or are these political messages of existential threats to the nation state undermined by realist images of the tragedy and grief of war? Do these images of brutality and atrocities of war provoke or enrage us to decry war? For national leaders today, these are significant questions: are the depictions of war rallying or dividing public opinion about the war?

What then should have been the assignment given to war artists and photographers deployed by the US Army to paint the Afghan and Iraq wars, and earlier, Vietnam, or other war artists documenting earlier wars? From what perspective do they paint the war they are assigned to visualise? An earlier generation of war artists despatched to cover the 19th century Anglo-Afghan wars appeared clear on their mission. Their works are exhibited in war museums. Many show the comradery of the British troops and their bravery in charging into battle against the Afghans.

The choices confronting today's war artist and photographer about what to document and from what perspective are more complex. The carnage and horror that the photographer or artist feels compelled to record may not be what the military who engages him wants recorded. The millennium-old practice of art in support of the state honouring and celebrating its war heroes and the glory of war as rallying points of the state persists, but with what credibility to its audiences? What of documenting the realism of war, the act of being killed and death? Getty Images Inc. has in its archives some 59,000 images of dead soldiers. It suggests that the gore of death in battle sells and can be commodified by war artists and photographers. Is this the future for the art of recording of war? □

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Note: We regret that a number of images were not able to be reproduced for this essay due to copyright issues.

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The Syonan Symphony Orchestra: A Case of Musical Collaboration in Wartime Singapore

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The arts always have a role in society, even in times of extreme crises such as war. During the Japanese Occupation of Singapore (1942-1945), the Syonan Symphony Orchestra was formed, providing succour and entertainment on a regular basis to locals and Japanese troops. The author delves into this little-documented entity and proposes that music was also a tool for survival during this extraordinary period in Singapore's history.

Perhaps nowhere is the truth of the phrase “Music has charms to soothe a savage beast” put on trial more than during wartime where complex and ambiguous relationships between conqueror and conquered are played out on a daily basis.

In popular culture—albeit inspired by true-life incidents—film buffs would no doubt recall the scene from the 2002 Oscar-winning biopic *The Pianist* set in World War II Poland where the protagonist plays the piano for a German officer who would subsequently offer him protection or the 1997 *Paradise Road*, where a performance by a choir formed by women prisoners-of-war in Sumatra brought forth momentary transformation within their Japanese conquerors.

Closer to home there is the Syonan Symphony Orchestra—also variously referred to as Syonan Kokkaido Orchestra, Syonan Orchestra, Augmented Syonan Orchestra—that was formed during the Japanese Occupation of Singapore from 1942-45. The “packed out-shows given every Sunday afternoon” by the orchestra throughout the occupation—as recalled by well-known conductor and Cultural Medallion recipient Paul Abisheganaden (1914-2011)—made it “the epitome of live entertainment during those war years.” The word *Syonan* (Japanese: Light of the South) refers to the Japanese name for Singapore during the war.

Yet, the impetus behind the founding of this ensemble remains cloaked in some mystery and its origins may not have been as innocent as just music having its charms to soothe a savage beast.

“...little has been made out of these brief accounts...”

In a 2005 research paper titled *A Narrative History of Music 1819 to Present*, musicologist and educator Eugene Dairianathan observes that “One of the most interesting spaces for further discourse is during one of the most traumatic periods of Singapore’s history, the Japanese Occupation. Although coverage was given to Western arts music activities during the Japanese Occupation in the *Syonan Shimbun* and although individual memoirs have made passing reference to such activities, little has been made out of these brief accounts.”

Indeed.

Excepting oral history interviews by the National Archives of Singapore (NAS) and accounts in memoirs (both by civilians and former prisoners of war), little has been written by historians or musicologists on musical development in Singapore during the occupation.

Cultural Medallion recipient, educator, and guitarist Alex Abisheganaden was perhaps among the first to bring public attention the role of music (and mention of the Syonan Symphony Orchestra) during the war. In an article on musical development in Singapore for *The Straits Times* published on 9 August 1982, Alex Abisheganaden recalled that “during the war

years, the Victoria Theatre (then named Syonan Kokaido [sic]) was the venue for weekly concerts by the Syonan Tokubetusi [sic] Orchestra with Walter Rayman as leader-conductor.”

The orchestra, recalled Alex Abisheganaden, comprised the “best European and local musicians” and gave two concerts each Sunday. He noted that the theatre was “always packed for both concerts” and in addition to a monthly pay, the musicians were given “one *kati* of rice, half *kati* of sugar and five packets of Koa cigarettes!”

In Paul Kratoska’s *The Japanese Occupation of Malaya and Singapore, 1941-45: A Social and Economic History*, brief mention is given to the importance the Japanese placed on music. He highlighted that the Japanese were aware of how “music wielded ‘considerable influence on the sentiments of a people’” and that the Japanese government subsequently imposed a ban on some 1,000 American and British compositions in January 1943. Kratoska however makes no mention of the orchestra.

Writing in 2010 on a survey of music in Singapore from the 1920s to 2000s for the National Library Board, Loretta Marie Perera and Audrey Perera found that during the war years, “the music climate took on a new direction”.

The Pereras observed that a need for musical entertainment provided by amateur musicians for Japanese soldiers had—within the period of the war—enabled some amateurs to turn professional and make a living from their music.

Of the orchestra however, all that is stated is that “Japan’s Syonan Kokkaido Orchestra performed at its headquarters in Victoria Theatre, as well as at Cathay Cinema and the Japanese military camps. Prisoners and the public got to watch these performances as well.”

To date, perhaps the two most extensive accounts of music in this period available to the public is possibly still that of Eugene Dairianathan’s research paper (for which this writer served as Dairianathan’s assistant researcher) and Paul Abisheganaden’s autobiographical *Notes Across the Years: Anecdotes from a Musical Life* from 2005.

Dairianathan attempts a chronology of the events from 1942-45 with lengthy excerpts from the *Syonan Shimbun* while Paul Abisheganaden’s chapter entitled “The Japanese Occupation and Return of the British” in his abovementioned memoirs is a detailed account based on his personal experience. His account is invaluable for personal insights and encounters with the lives of various musicians involved in the orchestra: musicians who have remained largely forgotten and of whom little is known.

Yet, despite all of the above, little has been made out of these brief accounts.

Who *actually* founded the Syonan Symphony Orchestra? Why was it founded? How was it managed? Who was in the orchestra? What did music mean for the members of the orchestra and finally, what impact did the orchestra have on musicians who lived through the occupation?

“... two events of
musical interest to those
who are music lovers”

Despite various accounts by Singaporeans who performed in the orchestra, until sources (if at all available) in other languages (Japanese, Chinese and Hungarian) come to light, it would be difficult to ascertain the exact origins of the Syonan Symphony Orchestra.

The reason is simple: accounts vary as to who was involved in the orchestra and the roles they played.

These differing accounts can easily be explained by the fact that musicians who performed in the orchestra were either not privy to details of the organisation and management of the orchestra or the element of fear prevented them from wanting to know more.

As former teacher and school principal Gay Wan Guay (1915-1985), who performed with the orchestra as a violinist, said in his 1983 oral history interview with NAS when asked about the origins of the orchestra: "... As I said, in those days, I don't know, as far as I was concerned, mind your own business. You are asked to do this, you liked to do this, you do and get out of trouble. That's it."

One common assumption about the origins of the ensemble, as found in most accounts, was that the orchestra was an initiative of the Japanese administration.

In his memoirs, Paul Abisheganaden states that "It did not take long for the Japanese authorities to establish a small theatre orchestra, the Syonan Kokkaido Orchestra, with its headquarters at the old Victoria Theatre. They sent out a band conductor from Japan called Watanabe."

Paul Abisheganaden further elaborates that a Hungarian musician by the name of "Paul Gerentzer"¹ was engaged as a "manager of the orchestra" who subsequently "roped in other foreign musicians, and together with all available local musicians, the group played under the direction of Mr Watanabe."

Paul Abisheganaden's younger brother Alex, in his abovementioned article for *The Straits Times*

however stated that Gerentser was the manager of the Victoria Theatre during this period.

Regardless, it seemed Gerentser brought more than his management skills to the orchestra. Paul Abisheganaden noted that—and also evident from reports in the *Syonan Shimbun* and house programmes of the orchestra—in order to "brighten the programme" of the concerts, Gerentser's wife "recruited a few young ladies and train [sic] them as dancers who joined her in dances choreographed to popular light classical music." These efforts "provided much unexpected excitement and attractive diversity to the orchestral items of the programme."

Paul Gerentser however was not the only name which emerged in connection with the orchestra. Czech musician, David Samuel Apelbaum, was also often mentioned.

Apelbaum, who died in 1967 in Singapore, was a pianist and piano teacher who after the war set up Petrof Piano House & Favourite Radio, which imported Petrof pianos from the former Czechoslovakia while serving as an agency for a Czech radio receiver.

Music educator Benjamin Khoo, in his oral history interview with NAS, also attributed the founding of the orchestra to the Japanese administration and recalled the orchestra being led by Apelbaum.

For Khoo, this orchestra was one of "two events of musical interest to those who are music lovers" during the war. Khoo, who played the violin in the orchestra, recalled that Apelbaum "took over" and "we managed somehow to organise an orchestra together, which may not be a complete orchestra but still it's something that we could be proud of ..."

Khoo further recalled that the orchestra was started a year after the Japanese Occupation and it functioned for the next two years.

Apelbaum was also mentioned by Gay in his oral history interview when he spoke about his experiences in the orchestra where he performed as a violinist:

.. we had a kind of small orchestra under certain conductors. Hungarian, I don't know what nationality. Appelbaum [sic]. He's quite famous himself. And we had some local people.

So, when exactly was the Syonan Symphony Orchestra founded? Who led the orchestra? And finally, who was Paul Gerentser, the manager of the orchestra?

“Rapturous Musical Treat Enthrals Wounded Troops”

A look at three different sources, the *Syonan Shimbun*, *The Singapore Free Press and Daily News*, and an oral history interview with Victoria Kreml nee Mowe who had performed with the orchestra as a dancer reveals a different picture and hints at other intentions behind the founding of the orchestra.

The life and fate of the Hungarian manager of the orchestra, Paul Gerentser, and his family made the front pages of *The Singapore Free Press and Daily News* on 17 July 1946 when their repatriation was delayed owing to a lack of accommodation on the ship they were to leave on.

While the reasons for Gerentser's repatriation were not made clear in the article and research to date has not revealed any other press reports on this matter, the language of the report and cross references with the abovementioned two sources hint that Gerentser could have been repatriated for reasons of collaboration with Japanese forces during the war.

That the article states the Gerentser were “interned” while awaiting their passage, is already an allusion to the fact that their movement of freedom was restricted. This conjecture of repatriation on grounds of collaboration is corroborated by Victoria Kreml nee Mowe in her oral history interview with the NAS.

Born in 1916 in Sarawak of British descent, Victoria Kreml nee Mowe studied in Singapore and was with the Medical Auxiliary Services as a volunteer when the war broke out. She subsequently joined the group of dancers formed by Mrs Gerentser (as Paul Gerentser's wife was identified as the orchestra's house programmes although pre-war press articles refer to her as Mathilde Gerentser) in order to find employment and security.

Victoria Kreml subsequently married another member of the orchestra, Austrian-born Hungarian musician Francis Steven Kreml—more popularly known as Feri Kreml—who was deputy conductor of the ensemble. After the war, Feri Kreml would remain in Singapore as an influential performer and teacher until his death in 1962. Victoria Kreml worked as a telephone operator and subsequently as a kindergarten teacher until her retirement in the 1980s.

While acknowledging that working with the orchestra offered protection of some sort from the Japanese for its members, Victoria Kreml

nevertheless recalled that “Mr Gerentser was very friendly with the Japanese” and that of “all the Hungarians who were left behind, he was deported back to Hungary when the British came back.”

Victoria Kreml then claimed that Gerentser “... was a sort of collaborator that was how we got so many things through him, because he was very friendly with the Japanese.” Of equal interest is that according to Victoria Kreml, Gerentser “was very anti-British” and he “used to talk to various people anti-British” so that “when the British came back some of the people reported on him and so he was deported, he, his wife and children.”

Even when asked how she felt about the fact that Gerentser had ensured the survival of the orchestra, she replied, with “No, but then he could have been collaborating with them but not talk against the British. He was very anti-British.”

Viewed with this knowledge, the 1946 *The Singapore Free Press*’ account of Gerentser’s wartime musical activities then take on a different light.

It reported that Gerentser was “instrumental in forming and managing” the Syonan Symphony Orchestra and he was also responsible in “no small way for ‘popularising’ Jap and other Oriental songs during the Jap occupation—the Nips, he claimed, would not allow him to organise the otherwise.”

In fact—according to *The Singapore Free Press*—the orchestra began when Gerentser “got together a few musicians soon after the fall of Singapore in 1942, and took on the self-imposed task of entertaining Jap sick and wounded”:

From then on, he became quite well-known to the Japs, while keen that Gerentser and his band should play to them, gave him little help. It was at the time that the Japs expected Gerentser to run a 20-piece symphony orchestra on five hundred “banana” dollars a month.

If the above is taken to be true then, the Syonan Symphony Orchestra was initiated not by the Japanese but by Gerentser himself. That he and his family were free to move about during the occupation is understandable: citizens of countries not at war with Japan then were not interned, hence the various observations that the European members of the orchestra were either Hungarian or Czechs who had settled in Singapore pre-World War Two.

Here, a look at the earliest reference to the Syonan Symphony Orchestra from the 10 April 1942 issue of the *Syonan Shimbun* in an article titled “Rapturous Musical Treat Enthrals Wounded Troops” is instructive.

On the day before, the orchestra led by Gerentser (whom the reporter referred to as “Gaza”) had performed a three-hour concert to wounded and sick Japanese soldiers squatting under a “threatening sky on a wet quadrangle in the Syonan General Hospital.”

The “skeleton orchestra” comprised three violinists, a cellist, a trumpeter, a bassist, and a pianist, with Gerentser on the drums, while the programme included popular Western classical music and a Japanese work. In addition, more than 10 other pieces were played upon request.

At the conclusion of the concert, the audience “specially enjoyed the Nipponese pieces which were played by request and encored repeatedly” and in one instance “the audience accompanied the orchestra vocally.”

“...A magnetic (musical?) personality...”

So, who was Paul Gerentser? Was he really a collaborator? If the 1946 *The Singapore Free Press* account of the orchestra is accurate, what then motivated Gerentser to take on the “self-imposed task of entertaining Jap sick and wounded” which in turn probably ingratiated him to the Japanese administration? Was it because he used music as an instrument for his and his family’s survival, and that of fellow musicians? Or if indeed he was “anti-British”, did he use music also as a weapon?

In the absence of any account by Gerentser himself to date, we can only reconstruct some facets of his life and the orchestra based on press reports, Paul Abisheganaden’s memoirs and oral history interviews.

The first mention of Gerentser in the press is a 1937 advertisement of him appearing as a singer (although he would later be known as a drummer) with the Reller Hungarian Band at the former Seaview Hotel. The band was founded by Yugoslavian musician Cornell Reller who had arrived in Singapore a year earlier in 1936. Reller’s band grew in popularity within a short period of time because of their Sunday morning broadcasts by the then British Malaya Broadcasting Corporation from the hotel. Reller however died in 1940 and for a year or so after that, nothing significant was heard of Paul Gerentser in the press (although we can find mention of his wife in various variety shows) until the concert on 9 April 1942 for the wounded and sick Japanese soldiers.

In appearance, Gerentser must have been impressive. At the Syonan Symphony Orchestra’s

first performance in 1942, he was described as a “magnetic (musical?) personality, bearing striking resemblance to Paul Whiteman”, while four years later in 1946, *The Singapore Free Press* described him as someone “well-built “and “square shouldered” who spoke with “a strong Continental accent”.

The end of the Japanese Occupation saw the demise of the Syonan Symphony Orchestra which by then had “showed themselves as accomplished in reproducing the staccato of Jap ‘music’ as in the rendering of Schubert classics” and the Gerentseres subsequently “busied themselves in a nightclub venture” where Paul Gerentser acted as host of the club—he named it Atomic Club—and his wife danced for the entertainment of Allied officers. This was until their repatriation.

If anything, one can surmise that Paul Gerentser was probably a shrewd entrepreneur and opportunist who knew how to make the best of any circumstances as quickly as possible. He also probably did not have specific loyalty to any one side when it came to matters of war.

When the British fell to the Japanese, he saw the war as an occasion to precipitate his musical career in Singapore through the formation of the Syonan Symphony Orchestra.

If indeed he was “anti-British, the Japanese Occupation then served Gerentser’s purposes. Yet, when the Japanese surrendered to the allied forces, he was just as quick to find a means to ingratiate himself again, this time with the British albeit through a club to entertain the victorious allied forces.

But, given the fact of his repatriation and Victoria Krempf’s observations, perhaps he did have his enemies and perhaps there is some truth to his “anti-British” sentiments and his work with the

Syonan Symphony Orchestra viewed as a form of collaboration.

“...It will protect me better than a gun or a revolver or anything of that sort...”

What then of the musicians of the Syonan Symphony Orchestra themselves? What was the legacy of Gerentser?

It would appear that the orchestra did provide some protection for its members during such unpredictable and punishing times.

Perhaps this is best summed up in the words of Gay in his oral history interview when asked if the Japanese had interfered in the work of the orchestra or the lives of its members:

No, there wasn't at all. As I said already, they all—majority of them rather—felt that if you are a musician somehow or other they had a feeling that you must be a good chap, that you are quite harmless. Anyway, that's how I felt. I felt that as long as I played music, and I could sing a few of their songs, they will not have an ill-feeling towards me or my family. It will protect me better than a gun or a revolver or anything of that sort.

Perhaps then, even in times of war, regardless of intent, music does have its charms to soothe the savage beast. □

To read the full-length essay, please visit Culture Academy's website.

About the Author



Writer, producer and arts manager Phan Ming Yen has helmed a number of leadership posts with arts and cultural organisations in Singapore, including as CEO of non-profit organisation Global Cultural Alliance and is at present COO of The Rice Company Limited. He published his debut collection *That Night By the Beach and Other Stories for a Film Score* in 2012. He is also one of the four writers in the collaborative writing projects, *The Adopted: Stories from Angkor* (2015) and *Lost Bodies: Poems Between Portugal and Home* (2016), while other short stories have appeared in *Quarterly Literary Review Singapore*. Phan has also written on the history of music in Singapore in *Cultural Connections*, the journal of the Culture Academy of the Ministry of Culture, Community and Youth and *Singapore Soundscape*. His poetry appeared recently in the online anthology *Atelier of Healing* (<https://www.atelier-of-healing-anthology.com>).

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Notes:

1. Paul Gerentser's name has been variously spelt with a "z" or "s". This article henceforth would adopt the spelling as "Gerentser" as that was spelling that appeared in the house programme of the Syonan Symphony Orchestra and also the press.

Arts and Culture as a Source of Well-being

Dr Wong Tien Hua

Council Member
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Established medical practitioner Dr Wong Tien Hua explores the many ways in which arts and culture contribute to the well-being of individuals and the society at large, particularly in times of crises as demonstrated during the COVID-19 pandemic. Rather than being a non-essential sector, the author argues that arts and culture are crucial to the resilience of communities.

What is well-being?

The World Health Organization defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization 2021). This idea of completeness in one’s well-being instead of merely being free from disease is an important one, because it reminds us that health extends beyond existing biomedical models.

As medical science and diagnostics advance, and our understanding of disease pathology expands, we continue to add new definitions and symptom complexes to our growing list of illnesses. Indeed, it is becoming harder, if not impossible, for anyone to be really “free” of any disease. The goal of being completely healthy is seemingly unattainable.

Perhaps a better way of thinking about well-being is to regard it as a dynamic state that needs to be balanced, and the presence of mental or physical illnesses as something that cannot be eradicated but instead needs to be managed.

This is where the concept of resilience comes in. Resilience is the ability to adapt well and recover quickly in the face of adversity such as existential threats, illnesses and great stress. Increasing

resilience is contextual, based on the individual and involves the process of coping with stress, finding meaning, taking control, connecting with others, and contributing to a common cause.

In this article I will show how arts and culture can be an important pillar in building resilience and how it is integral to the well-being of not just individuals but to society as a whole.

COVID-19 and its impact on well-being

Since early 2020, the impact of the COVID-19 pandemic has been felt in all sectors of Singapore society. From hawkers to hotels, from airline workers to arts freelancers—no one has been spared its devastating effects. As the virus goes through stages of mutation making it more transmissible, clusters of infection continue to spring up leading to cycles of restrictions and easing.

The immediate economic impact arising from COVID-19 was a direct result of lockdowns and travel bans, leading to failed businesses and closures, reduced income, and job losses, especially in industries reliant on tourism and the congregation of people. Tourism, hospitality, and retail were the first to feel the effects; arts events such as exhibitions, plays, and concerts were also not spared. Like a tsunami, the seismic shifts in the way the economy had to adapt to the unfolding pandemic led to a delayed wave of economic woes in almost all other sectors.

Imposition of movement restrictions and social distancing resulted in cessation of physical gatherings, with group sizes reduced to between two to five persons. The population was asked to

stay home, adults had to work from home, and students had home-based learning. Extended families were separated and could not meet up, particularly affecting families with loved ones based overseas. Many people had to undergo enforced Stay-Home Notices and Quarantine Orders¹. This kind of isolation is not only physical but social as well, and its impact on well-being cannot be underestimated. Social connections and a sense of belonging are fundamental human needs. The deprivation of human connection leads to social isolation, and can have negative consequences such as anxiety, frustration, and depression. Isolation is also linked to physical inactivity and this leads to increased risk of chronic illnesses.

Many of us would have experienced the psychological effects of the pandemic, from the initial fear and anxiety of a threat from a novel new virus when the first cases were reported in Singapore, to uncertainty and fatigue as the pandemic wore on, stretching from weeks to months. For those whose jobs and income were affected, the psychological consequences include anxiety, loss of self-worth, helplessness, and depression. A *Straits Times* poll of 1000 people reported on 7 April 2021 had 36% of respondents saying their mental health has worsened.

Finally, there is the social impact of the pandemic, as families are forced to live, work, and study in the confines of small spaces. There is a loss of personal space and freedom of movement, leading to disruption and disputes. All these are evident as we see increasing cases of domestic violence and abuse being reported in the local newspapers. Frustration and anger can turn into aggression, and build intolerance towards others especially amongst people from different cultures, threatening the social fabric of our communities (Chan D 2020).

What is the evidence of arts and culture on well-being?

Doctors know that well-being does not fall under the domain of healthcare services alone. The successful treatment of any patient's illness goes beyond medical management and has to be contextualised to the individual's circumstances, taking into account lifestyle, family, and cultural factors. Attaining well-being is thus a multidimensional effort in which the arts and culture have a big role to play. If the arts can be shown to have positive health effects, then it is a useful adjunct to medicine in its ability to reach each and every person in a personal way, based on each individual's preferences and cultural milieu.

There are innumerable studies that link arts and culture to both mental and physical well-being. Artistic engagement either as an observer participant, or as part of a creative activity, can enhance mood and emotion thereby combating stress, anxiety, and depression.

The World Health Organization published a scoping review in 2019 covering over 900 publications involving over 3,000 studies looking at how the arts can improve health and well-being (Fancourt and Finn 2019).

The authors defined the arts in five broad categories, including performing arts, visual arts, literature, cultural activities, and online/digital arts. Arts activities are linked to health because they involve aesthetic engagement and sensory activation, stimulate cognition and emotion,

and oftentimes require social interaction and physical activity. These activities are able to trigger psychological, physiological, social, and behavioural responses that can lead to positive health outcomes.

The studies show that people who engage with the arts are more likely to lead healthier lives. Arts that involve physical activity such as dance lead to improvements in cardiovascular health and a reduction in body fat and obesity. Dance promotes good posture, improves strength and balance, thereby reducing falls and preventing frailty in the elderly. Engaging in the arts improves mental well-being, self-esteem, confidence, and self-worth. Composing and listening to music, creating artworks, and visiting cultural sites are all relaxing activities that reduce stress and anxiety.

Cultural activities such as attending concerts and visiting museums help the brain's resilience against cognitive decline as a result of ageing. Arts have a role in health promotion, health education, and can reduce social stigma when they tackle health-related themes such as mental health, dementia, and HIV.

Arts and culture in the times of COVID-19

Given the substantial body of evidence on the health benefits of the arts, I would like to highlight three areas where the arts has a direct effect on well-being in Singapore, and why the arts should be regarded as a necessary and essential form of support in a time of crisis.

Art as an Expression of Gratitude

The current pandemic has thrust the country into a deep crisis where no person is left unscathed. Our society has collectively gone through an extremely trying period marked by anxiety and uncertainty as we struggle to navigate the storm. It is as if we are sailing a ship in turbulent waters, being tossed around by events that we cannot control.

Art has the power to remind us that we are not alone in this suffering and it offers an avenue to process our emotions and experiences. We often feel helpless in events beyond our control, but we can regain that sense of self-determination through the process of creating art, in particular by using art to show our appreciation and gratitude to others. Being grateful enhances happiness and positive emotions, and expressing them to others improves social connections. Creating artworks as a show of gratitude therefore is not only a process that is therapeutic to the artist, but also benefits the receiving party at the same time. This double effect improves well-being all around.

One example of utilising art as an expression of gratitude is the "Healthcare Heroes" initiative which was started to allow members of the public to submit artworks to thank frontline workers, some of whom had experienced discrimination during the early stages of the pandemic. The website healthcareheroes.sg showcases a large collection of artworks where one can see and experience the outpouring of gratitude and thanks for frontline workers who have been working tirelessly to ensure the safety of the nation.

Combating Isolation

Arts and cultural activities can be used as a potent tool in combating isolation. Arts activities encourage participation; exhibitions and concerts provide venues for people to interact and can serve to connect family members and social groups. For example, outdoor public exhibitions can be enjoyed by both young and old alike and are therefore an ideal activity for extended families to attend, while arts activities held in healthcare institutions are able to connect patients with carers. The imposition of public health measures necessitated the closure of many arts programmes in the past year, and it is hoped that such activities can be quickly restarted once the country has achieved a high level of vaccination and is able to open up safely.

The "Arts in Your Neighbourhood" programme, an initiative by National Arts Council, is a good example of bringing the arts to the community. It is held twice a year in different neighbourhoods around the island, and includes a host of activities covering dance, literary arts, music, theatre and visual arts, encouraging families, the young and old in the community to get engaged without having to travel far from their homes.

Strengthening Social Bonds

The arts and culture foster prosocial behavior, and in particular the use of music and songs has shown to enhance social bonding. Music reflects and preserves cultural traditions, thereby promoting identity and resilience. Through the singing of familiar songs, participants share their common experiences and hopes for the future, transcending ethnic and cultural boundaries.

As I write this article during the National Day weekend in August, I am reminded of the National Day songs that Singaporeans look forward to every year.

This year's song is entitled "The Road Ahead" and eloquently captures the difficulties the nation has faced in the past year. The lyrics remind us of the power of hope:

*It's always darkest just before the dawn.
See this island, every grain of sand
Hear this anthem, it's the voices of our friends
Come whatever on the road ahead
We did it before, and we'll do it again* □

About the Author



Dr Wong Tien Hua is a Family Medicine Practitioner and director of Mutual Healthcare Pte Ltd. He is a council member of the Singapore Medical Association (SMA), and has been serving in SMA since 2004. He was President of SMA from April 2015 to April 2018 and served as Chairman of the Medical Associations of South East Nations (MASEAN) from 2014 to 2016. He is currently also a board member at Bright Vision Hospital and a council member for Agency for Care Effectiveness (ACE). He was appointed as a council member on the National Arts Council in September 2019.

Dr Wong has been Vice President of the College of Family Physicians Singapore (CFPS) since 2019, and serves as the programme director for the Graduate Diploma in Family Medicine (GDFM) Programme. He also teaches as an adjunct assistant professor in Family Medicine at Duke-NUS Graduate Medical School.

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Notes:

1. Stay-Home Notices are legal notices requiring travellers to remain in their places of residence or dedicated facilities for a stipulated period. Quarantine Orders are issued to individuals who are, or suspected to be, carriers of the COVID-19 virus.

Museums as Spaces for Well-Being

Suenne Megan Tan

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Beyond their primary role as keepers of memories, museums play an important social role as well. Research increasingly shows that there is a link between cultural consumption and mental well-being. In an ageing population, museums are particularly well-placed to provide opportunities to enhance the health, well-being, and lifelong learning of visitors, as this essay demonstrates using the experience of National Gallery Singapore.

The role of museums in enhancing well-being and improving health through social intervention is one of the foremost topics of importance in the museum sector today. With an ageing population and evolving expectations on the social responsibilities of museums, the sector is facing an unprecedented challenge in how museums can better meet the needs of its communities in a more holistic and inclusive way.

Internationally, there is increasing data showing the link between cultural consumption and well-being, with more conclusive evidence finding that challenging one's mind aids cognitive health. An ageing population presents museums with both challenges of retention and access, and opportunities for enhancing visitors' health, well-being, and lifelong learning. This has led to a critical shift in thinking about international museum policy and practice.

Recognising the impact that the arts have on different dimensions of well-being, both in terms of feeling good (i.e. the experience of happiness, contentment, enjoyment, curiosity, and engagement), as well as functioning well (i.e. the experience of positive relationships in which we have some control over our lives, and a sense of purpose), this essay outlines the different modes in which the National Gallery Singapore

(the Gallery), has been able to contribute to the growing evidence base on the potential of the arts in improving health and well-being of individuals and communities, and bringing about positive change in society.

Project #1: art therapy for seniors at risk of dementia

In 2016, the Gallery embraced the opportunity to use art from the National Collection to engage seniors at risk of dementia, when Professor Kua Ee Heok of the National University of Singapore's (NUS) Yong Loo Lin School of Medicine, and his team, co-led a nine-month study to find out if art can improve the overall well-being and cognition of seniors at risk of dementia (Boh 2016).

This evidence-based study, which was funded by a donation to NUS, and carried out using the Gallery's art, was an extension of a larger 10-year longitudinal Jurong Ageing Study that NUS Medicine started in 2013, in a bid to reduce depression and dementia in the elderly residents of Jurong.

For nine months, 24 elderly participants came down to the Gallery for art and reminiscence therapy. This was followed by an art-making workshop which was conducted offsite. Each 45-minute session at the Gallery started with a short mindfulness practice, where participants were asked to focus on their thoughts, breathing, and body sensations. Participants would then be invited to gather around the selected art piece and engage in meaningful conversations by sharing their perspectives, experiences, and feelings about

the artwork in the museum, facilitated by specially trained guides from the Gallery and NUS.

For each artwork, participants would be introduced to the title of the artwork, its artist, and provided with a brief description of the artwork. Guiding questions were then asked based on the theme of the artwork (e.g., “If you can give this painting a title, what would it be?”), visual observations (e.g., “Which part of this painting captures your attention?”), feelings (e.g., “What do you feel when you look at this painting?”), and specific details of the artwork (e.g., “Why do you think the character of this painting was drawn this way?”). Freedom of expression was encouraged throughout all sessions.

The Gallery, in consultation with art therapists and psychiatrists involved in the project, selected art pieces which were relevant to these older adults, whereby the themes or events portrayed in each art piece was linked to Singapore’s past and held cultural and social significance, with the intention that these might provide stimuli for recall and discussion among the participants.

To prepare for the programme, the Gallery’s volunteer guides, who were committed to facilitating the sessions at the Gallery, also underwent training to understand group dynamics and different approaches that could be adopted to elicit emotions and use art to relate to the memories and life experiences of the participants.

Brain scans and readings of anxiety levels, as well as memory and cognitive functions, were taken before the start of the programme, three months later, and at the end of the nine-month project. The findings of this pilot holds promise, as results from this initial study indicated that the combination of art viewing with art making has been effective in

improving memory and attention in persons with dementia. The results have since been published as a research article in *The Arts in Psychotherapy Journal*, and the Gallery is glad to have contributed in some way towards this exploratory study (Lee et al. 2019).

The Gallery is currently partnering social service agency, Dementia Singapore, to pilot a toolkit that aims to reduce barriers of access for persons with dementia and their caregivers, and increase more regular access and use of the Gallery and its collection.

Solidarity in times of the pandemic

2020 was an incredibly challenging year, and many front-line workers, particularly our healthcare workers, had worked tirelessly to keep the virus at bay as Singapore battled COVID-19.

In February 2020, the Gallery partnered the Singapore Medical Society in a public campaign to rally the public to post various works of art with hashtags #SGArtforHCW and #NationalGallerySG to encourage and provide psychological support for our healthcare workers. Gallery staff, volunteers, the artist community, students, and members of the public contributed over 300 artworks via social media platforms such as Instagram and Facebook. Some of these artworks are permanently displayed at the Ng Teng Fong General Hospital today so that healthcare workers can continue to view these messages of support as they go about their daily responsibilities.

Project #2: *The Care Collection*: caring through the arts by National Gallery Singapore and Singapore Art Museum

It was also during this time that the opportunity to use art to support the mental well-being of our healthcare workers arose, and National Gallery Singapore and Singapore Art Museum (SAM) came together to develop *The Care Collection* (National Gallery Singapore 2021c) which can be used by professional art therapists and counsellors as content for their art therapy practices, as demonstrated by SingHealth's *iTHRIVE ARTpreciate* art therapy pilot for healthcare workers (Ho 2020).

Recognising that art can be a powerful tool that can bring comfort and relief from the everyday, both museums partnered a resident art therapist within the SingHealth Group who used *The Care Collection* to design an art therapy programme aimed at supporting healthcare workers and preventing burnout. *The Care Collection* features a selection of artworks from the National Collection specially curated around seven themes: Courage, Connection/Disconnection, Resilience, Hope, Growth, Self-Love/Self-Compassion and Being in the Present.

Between June 2020 to May 2021, the programme supported close to 160 healthcare workers from 12 institutions within the SingHealth Group. Through the assessment done with the participants, findings showed an improvement in the stress levels of participants, where those with moderate stress levels prior to the programme, indicated lower stress levels after attending the programme. Over 70% of the participants surveyed indicated that the programme was critical in supporting the relief of their stress levels and enhancing their individual well-being.

Project #3: art x wellness at National Gallery Singapore: *Slow Art*

Following the positive reception of the *Care Collection* for art therapy for healthcare workers, the Gallery designed a public programme to support the mental well-being of individuals and communities through art using artworks from the collection.

Launched in July 2020 at the height of the pandemic as a new public programme initiative, *Slow Art* was inspired by the principles of slow looking and mindfulness (National Gallery Singapore 2021b). The 60-min programme takes participants on a deep-dive into one artwork from *The Care Collection*. Participants follow a series of creative observation exercises which engage their different senses to explore the intersection of visual art and emotional wellness. Through facilitated group conversation, participants freely share their thoughts and engage with one another. Key words

gathered from the post-programme survey saw participants describing their slow art experience as “inspiring”, “calming”, “reflective”, and “encouraging”. These words reflect the therapeutic aspects of the programme.

Among the 200 participants who participated in *Slow Art* since its launch in 2020 were a group of foreign domestic workers. This outreach effort was made possible with the help of our Sister Guides—foreign domestic workers who were trained as guides to lead art tours in their respective home languages (Burmese, Tagalog, and Bahasa Indonesia) under an initiative launched in 2019 by the Gallery (Dumlao 2020). The Sister Guides offered *Slow Art* to their fellow domestic worker communities during a time when social gatherings were not allowed.

As of December 2020, *Slow Art* has been offered as a free on-demand programme to support staff and clients from the social service sector as well as other healthcare workers. Participants of *Slow Art* have cited that the programme has improved their overall emotional well-being. Many shared that they left the programme with a sense of community and support, with a deeper level of connection both with themselves and with others through the sharing of personal experiences using art.

Museums as part of a larger ecosystem

Internationally, there is considerable practice and innovation in museums around health and well-being (MuseumNext n.d.). There is growing literature suggesting that regularly visiting museums contributes to emotional well-being, by “providing a sense of connection, optimism and hope, self-esteem and resilience, support, quiet, rest and sanctuary, social capital and relationships, meaningful pursuits and by providing a safe, rich environment with access to arts and culture” (Gan 2019).

Responding to health and well-being needs means museums have to look outside the institution and start with the needs of their communities (National Gallery Singapore 2021a). Being aware of community needs helps museums to focus their attention on how best they can use their collections, programmes, exhibitions, and collective experience to meet those needs. However, museums cannot do this work alone. To be sustainable, every museum needs to understand the role that it can play within its ecosystem and embrace the right partnerships to create sustainable outcomes for the communities they serve.

We hope that the sharing of these case studies contributes to the growing body of museum practice addressing community health and well-being and inspires different ways of using collections. □

About the Author



Suenne Megan Tan is the Senior Director of Museum Planning and Audience Engagement at National Gallery Singapore where she supports the Gallery's vision of inspiring a thoughtful, creative, and inclusive society through innovative and accessible exhibitions and programmes that generate positive societal impact, and pave a new way of thinking about the present and future role of museums and cultural institutions in cities. A member of the Gallery's senior leadership team, Tan currently oversees the Gallery's planning, governance, legal, research, programmes, and learning portfolio cluster. Suenne brings over 20 years of museum experience, having been with the Gallery since its inception as an independent entity in 2009, and prior to that, served as the Deputy Director of Communications, Programmes and Development at the Singapore Art Museum.

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The Crisis of Normality

Dr. Eugene Tan

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The COVID-19 pandemic is undoubtedly the biggest crisis of our time, resulting in immense and tragic death and suffering around the world. The disruption to our lives and societies brought about by the quarantine and lockdowns around the world, as well as the closure of borders, has prompted a yearning for a return to normality, albeit with the realisation that it will be a "new normal", and whatever form this will take remains to be seen. However, we should acknowledge that the situation even before the COVID-19 pandemic was anything but "normal". We should realise that normality only exists in retrospect, especially in the wake of subsequent chaos and crisis that follow. When we look back and try to reconstruct it, we are really looking at a distortion. We have to realise that at the time, the situation we came to accept as normal, wasn't. It was something far from perfect, with visible and evident faults, to be questioned, improved upon, maybe even disposed of, only not for that worse thing that was brought on by the COVID-19 pandemic.

The COVID-19 pandemic has exposed and revealed a multitude of crises in our world, deep-seated crises which underlie and have become structural in our societies. These include social injustice and inequality, huge socio-economic disparities, decolonisation, racism and xenophobia, political polarisation and oppression, as well as, last but not least, the ecological crisis, which among many others may seem less prominent, but is equally profound. These crises have come to be considered 'normal' due largely to the hegemony of neoliberal attitudes and its resulting structuring of our economies and societies. In claiming to champion human dignity and individual freedom as its fundamental principles, neoliberalism has transformed and unleashed capitalist globalisation as an unbridled force onto our world, resulting in the unchecked spread of capitalism's crisis tendencies.

Art and culture can play an important role in redressing these crises brought about by neoliberalism and capitalism. 'World-making' has always been an important aspect of art. Artists reflect on our societies and our world, highlighting the issues and crises that afflict us, while searching for constructive world pictures and seeking to build coeval connectivity, in the process, envisioning other possibilities of what our world can be. Art, therefore, does not only picture the differences and crises in our societies, but also seeks to counter their destructive effects by enabling better coeval relations. Art, in this sense, becomes a form of agency to effect change in our world for the better.

The artworks highlighted in the pages that follow, which are all drawn from our National Collection, demonstrate how artists have engaged with some of the crises in our world in various ways and at different times. They can ensure that we do not forget the old normal, so that the new normal that we can create is able to redress what was previously anything but normal. They represent the views and interpretations of the respective artists, which some may find provocative and debatable—but that in itself would have served its purpose.

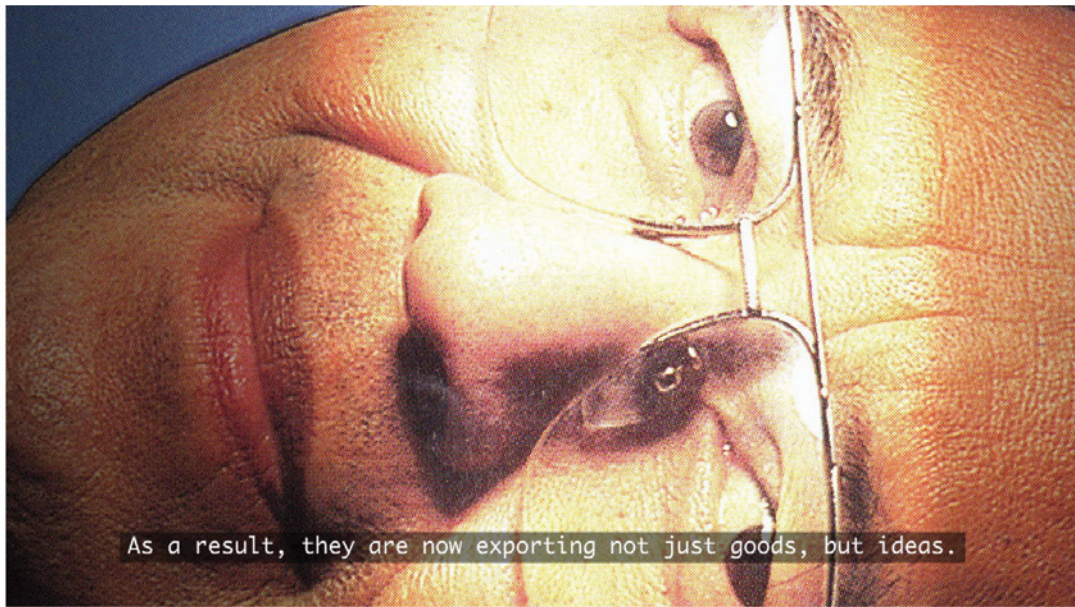


Figure 1. *Student Bodies* by Ho Rui An. 2019. HD Video, 26 min 30 sec.
Collection of Singapore Art Museum.

Student Bodies is a video work that unpacks the fraught history of the spread of capitalist modernity and its relationship to radical culture in East and Southeast Asia through the figure of the student body. The work tracks transformations of the student body in the region starting with the students of Satsuma and Choshu from Bakumatsu-era Japan, who were the first ones to be smuggled out of a then-closed society and sent to study in the West. Ho explores the shifting significance of the student body vis-à-vis nationalistic agendas, where it is considered as “both collective and singular,

metaphor and flesh, and stands in for the body politic of the region across the successive periods of ‘miraculous’ development, crises and recoveries through to the present day”. From Japan’s administrative elite (Todaibatsu) in the 1960s to the Thammasat University violence in 1976¹ and beyond, manifestations of the “student body” change from a symbol of the elite nobility to the dead student protestor on the streets, to the scholar-technocrat as an embodiment of the neoliberal state—in each case suggesting how education can be co-opted for economic and political ambition.



Figure 2. *Friends in Need* by Nirmala Dutt Shanmughalingam. 1986.
Acrylic and collage on canvas. Collection of National Gallery Singapore.

Nirmala Dutt Shanmughalingam's *Friends in Need* prominently features the two figures who were instrumental in effecting the neoliberal turns in Britain and the United States, which subsequently led to the spread of neoliberalisation globally: former British Prime Minister Margaret Thatcher and President of the United States, Ronald Reagan. Together they enacted policies to reduce the constraints on capital, shifting their societies, and the rest of the world, from an embedded-liberalism to neoliberalism. This collage was created to protest the bombing of Libya by the United States in 1986, an act supported by

the United Kingdom. Theatre and contemporary politics intersect as Shanmughalingam deploys traditional Javanese shadow puppet (*wayang purwa*) plat and the Ramayana and Mahabharata epics as social critique. In the collage, Margaret Thatcher appears as the demon Raseki, while Ronald Reagan is the villainous Raksasa Tjakil. *Friends in Need* may be located within a wider artistic turn in Southeast Asia during the 1980s which placed increasing importance on transcending formalist aesthetics to reflect local and global political concerns.



Figure 3. *Drown My Soul at Chico River (Bury My Soul in Chico River)* by Santiago Bose. 1981. Pearlite, wood, aluminium tubes, wire mesh and acrylic paint. Collection of National Gallery Singapore.

Drown My Soul in Chico River highlights the exploitation of indigenous communities and their ancestral lands by government and corporations in the name of economic development and capitalism. This work was made by Santiago Bose in response to the protest of the Kalinga people, part of the ethnic group known as Igorots, to stop the Chico River dam project. The dam project would have permanently flooded their ancestral lands and despite being under the rule of martial law imposed by then Filipino president

Ferdinand Marcos, the Kalinga people managed to successfully stop the project. It is an important subject matter reflecting the artist's concerns on the issues of the local tribes/people from the Cordillera region where he was born. The title of the work comes partly from a book written in 1970, *Bury My Heart at Wounded Knee: An Indian History of the American West*. Bose, who spent time in the US, was influenced by the increased activism of minority groups there such as the American Indians.



Figure 4. *Red House* by Bounpaul Phothyzan. 2016. 5 framed, c-print photographs, red nylon fabric and PVC pipes. Collection of Singapore Art Museum.

Red House by Bounpaul Phothyzan is a photo installation that comprises five framed photographs and a red cloth-house sculpture. Three house structures wrapped in red cloth are photographed against a backdrop of rural Laotian landscape. Used to symbolise the three red "houses" of communism in the region—China, Vietnam and Laos, this work casually assesses the influence of China and Vietnam in Laos through the documentation of its changing scenery. In one image, we can imagine ourselves bearing

witness to the unfurling of sky rise buildings that Chinese investment companies have been backing in under-tapped Laos. The incongruity of skyscrapers as they abruptly punctuate the horizon line are significant as a demonstration of how China is seen as attempting to gain a footing in Southeast Asia: through projects such as its Belt and Road Initiative. The polished and poetic capturing of *Red House* belies the growing sociopolitical and geopolitical influences China and Vietnam have on Laos.

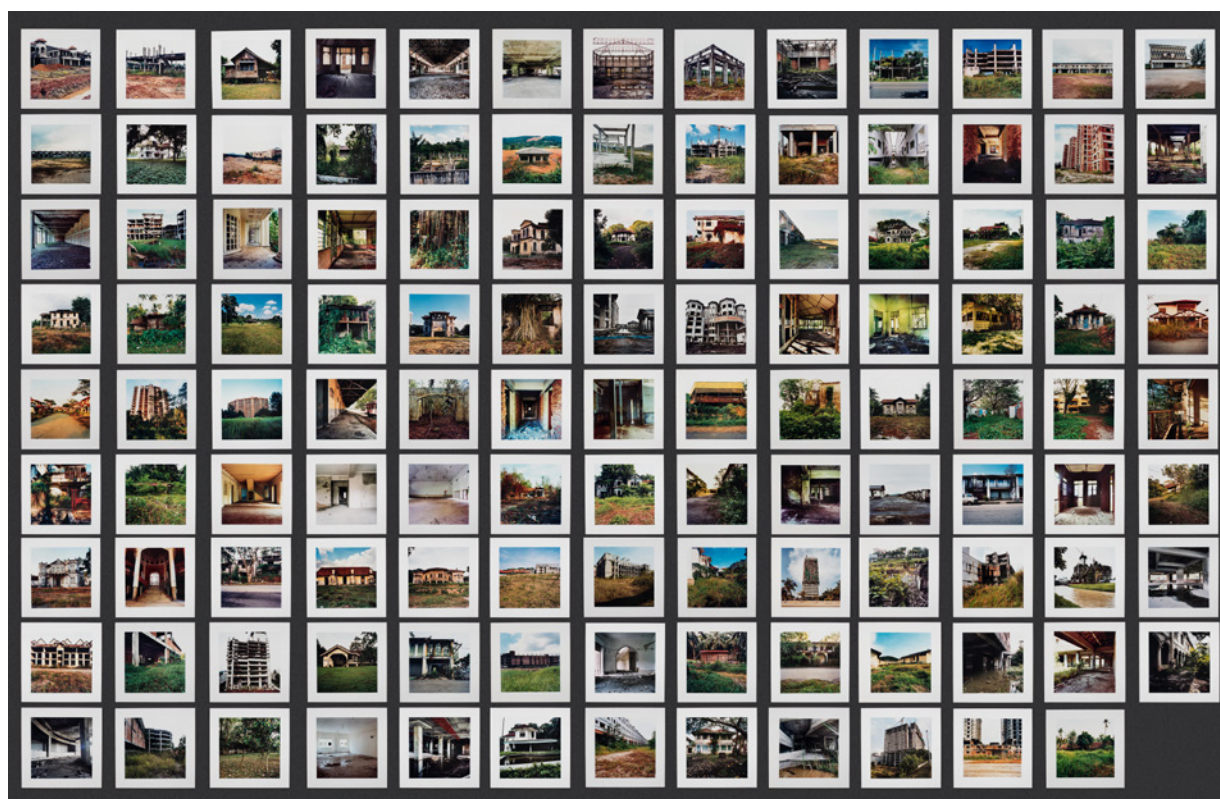


Figure 5. *Standing Still* by Simryn Gill. 2000–2003.

A set of 116 chromogenic prints, dimensions variable. Collection of National Gallery Singapore.

Simryn Gill’s *Standing Still* depicts construction projects which have been abandoned. Gill was “struck by the growing number of rather ambitious development projects which were simply being abandoned before completion, and were slowly starting to crumble back into the damp and humid landscape.” This work highlights the excesses and

destructive effects of capitalism. This work is also characteristic of the sort of floatiness that Gill potentiates, which melds the ‘tropical’ and the abstract. Gill has herself described the climatic and auratic nature of her works as a crucial mediator and layer, a condition between the stress of being modern and its excesses.



Figure 6. *Picturing Power* by Yee I-Lann, 2013.

Giclée print on Hahnemule Photo Rag Ultra Smooth Fine Art, 310 gsm 100% cotton rag paper.
Image courtesy of the artist. Collection of Singapore Art Museum.

Yee I-Lann's *Picturing Power* examines the history of colonialisation and its structures of power and control in Southeast Asia. It is a series of works consisting of eight images based on works in the collection of the Tropenmuseum in Amsterdam, an ethnographic museum that was founded in 1864 in the Netherlands and was then called the "Colonial Museum". Its original intent was to display and research the treasures, products, customs, and ways of life of Dutch overseas colonies, in particular Indonesia. In this work, Yee evokes various ways that the local or the

"native" was seen and conceived of in colonial Southeast Asia. She explores aspects of the relationship between the colonial administration, local communities and the various documentary and classification mechanisms that support this complex relationship. Through this, the work visually underscores the uneasy, delicate nature of the partnership between photography, control, and social and political power, and prompts viewers to think of other narratives that are subsumed in the face of dominant viewpoints.



Figure 7. *Untitled (Raffles)* by Lee Wen. 2000.

Photographic documentation of the interactive site-specific installation as part of A.I.M. (Artists Investigating Monuments) project presented by The Artists Village on 22 July 2000 at Raffles Landing Site. Photograph by Ken Cheong. Digitised by National Gallery Singapore Library & Archive with kind permission from Ken Cheong. RC-S164-KC1.3-5.

Raffles Landing Site was conceptualised as part of the A.I.M. (Artists Investigating Monuments) series. Organised by The Artists Village (TAV), the project invited artists to respond to public sculptures and monuments around the city. For his intervention into the cityscape, Lee Wen built a platform alongside the statue of Sir Stamford

Raffles at the Raffles Landing Site. Members of the public were invited to climb the platform and examine the statue at eye-level, rather than looking up at it. This work not only refigures the power relations between the coloniser and the colonised, but also opens up questions about Singapore's relationship to its colonial history.



Figure 8. *The Most Mild Mannered Man* by Fyerool Darma. 2016.
Polymarble, appropriated replica bust and two plinths. Image courtesy of the artist.
Collection of Singapore Art Museum.

Driven by his concern about a growing historical amnesia, Fyerool Darma's work presents two key figures in Singapore history: Sir Stamford Raffles and Sultan Hussein Shah, who played pivotal roles through two treaties which culminated in the founding of modern Singapore. The signing of the first treaty in 1819 allowed for the establishment of an East India Company trading post in Singapore, and the Sultan's acknowledgement of the second treaty in 1824 culminated in a complete transfer of power over Singapore and its surrounding islands to British control. The title of the work refers to a quote from Lord Byron's novel *Don Juan*, which was used by colonial official Sir Frank Swettenham to preface his study of the Malay race, entitled *Malay Sketches* (1895).

The artwork, a replica bust of Sir Stamford Raffles, originally produced by Francis Legatt Chantrey in 1817, is featured alongside an empty plinth with the name of the sultan engraved upon a plaque. Through this work, Fyerool explores the relationship between the two individuals, and how

they were subsequently represented in history. The empty plinth that stands across from the bust of Raffles highlights the disparity in attention that history has paid to the two individuals at the forefront of the discussion. While the face of Raffles is a ubiquitous image in Singapore, preserved in both portraiture and sculpture, little is known of what the sultan may have looked like. Typecast as a puppet of the British colonial administration, Sultan Hussein was characterised as a penniless royal living in Riau until his installation by the British as the rightful ruler of Johor-Riau, bringing him prestige and wealth, provided to him by the British colonial administration. With no viable antithesis to this history, the empty plinth becomes symbolic of the relationship between major and minor narratives within historical discourse—reiterating the fact that history is often written by the dominant while the dominated are relegated to assigned roles. This work therefore prompts a re-examination of a history descended from the colonial practice of historicising the Other and the myth of the lazy native that it has propagated.



Figure 9. *Red Morning Glory and Rotten Gun* by Pratuang Emjaroen. 1976.
Oil on canvas. Collection of National Gallery Singapore.
This work of art has been adopted by Sheila Lim Siok Keng.

Red Morning Glory and Rotten Gun captures a tragic time in Thai history—the 1970s, an unstable period characterised by military repression and student protests against the pro-America ruling government. Pratuang Emjaroen founded the Dhamma Group in 1971, gathering dissenting artists who collectively exhibited works perceived as powerful, and for authorities threatening, political statements.

Death is a major theme in this work. Painting in the aftermath of the 1973 Thai popular uprising, Pratuang depicts the bloodshed arising from government-led violence against demonstrating university students. In the foreground of the

painting lies decaying remains in a “rotten gun” alongside a decapitated statue of the Buddha; Pratuang frequently used Buddhist iconography to emphasise the loss of innocence brought on by brutality. Further back, a Thai flag is raised on a pile of bones, bodies memorialised by a headstone shot through with bullet holes and inscribed with the events of 1973.

An affecting reflection of the sociopolitical concerns of the day, *Red Morning Glory and Rotten Gun* also foreshadowed the Thammasat University violence of 1976, in which hundreds of Thai students were wounded or killed.



Figure 10. *Marsinah* by Semsar Siahaan. 1993.
Ink on paper, Poster. Collection of Singapore Art Museum.

Although a relatively modest ink drawing, *Marsinah* was created by Semsar Siahaan in 1993 to commemorate the death of Marsinah, a female factory worker who fought for the rights of her fellow workers and who was subsequently brutalised and murdered. That year, the Yap Thiam Hien human rights award went to Marsinah and her family, and Semsar's drawing was turned into a poster which was distributed to Indonesian non-governmental organisations (NGO) concerned with workers' rights. The stark black-white-red colour scheme of Semsar's drawing and its vivid and powerful use of linework echoes the tradition of Social Realist woodcut prints, and perfectly complements its rousing imagery—Marsinah is depicted in the foreground, her clenched fist raised to the sky in a universal symbol of activism and protest. In the background, the proletariat unite in their political awakening, bearing banners that call for labourers' rights.

A significant figure in Indonesia's art history, Semsar was well known for his stirring, socially-committed art which sought to "try to change the miserable state of human values resulting from injustice". With a strong conviction in the importance of art as the voice of the people—in particular the dispossessed and oppressed—Semsar participated in several demonstrations against the brutality of the New Order regime, resulting in his physical injury and subsequent departure for Canada due to fears over his personal safety. *Marsinah* is exemplary of the power of Semsar's art, the causes he believed in and fought for all his life, and captures the strident spirit of 1990s Indonesia when artists harnessed the power of art to seek redress for social injustices.



Figure 11. *Tapestry of Justice* by Wong Hoy Cheong. 1999-2004.
Installation; thumbprints, petals of flowers and leaves. Collection of Singapore Art Museum.

Wong Hoy Cheong's *Tapestry of Justice* was developed using copies of the thousands of thumbprints collected during the Reformasi movement in Malaysia, which are connected by leaves and petals of plants like hibiscus, roses and beech. The contribution of thumbprints constitutes symbolic actions for the repeal of Malaysia's Internal Security Act (ISA). The beauty and delicate nature of the tapestry is an ironic comment on how important and fragile basic civil rights are. As Wong relates it, he began the work

after the sacking of Anwar Ibrahim, in September 1998. *Tapestry of Justice* began life simultaneously as a petition—against the ISA—and a work of art, with Wong approaching strangers in public areas to solicit support. The petition and work began in Kuala Lumpur. Wong went around to bus stops, pubs, NGO meetings, churches, Reformasi demonstrations etc. to seek support and thumbprints, explaining what he was doing to total strangers, and asking whether they were for or against the ISA.



Figure 12. *Age of Full Bloom* by San Minn. 1979.

Oil and metal chain on canvas. Collection of National Gallery Singapore. Image courtesy of San Minn.

San Minn's *Age of Full Bloom* is an example of the explicit censorship of art. The work was censored by the then-Burmese authorities when it was exhibited at the 2nd Gangaw Village Art Exhibition in 1979², evidenced by rectangular stamp marks that mar the woman's arm and background. *Age of Full Bloom* was created soon after San Minn's release from Insein Prison where he had been imprisoned for three years following his involvement in the anti-government U Thant crisis of 1974. The artist symbolically incorporates the colours and star motif from the national flag of the Socialist

Republic of the Union of Burma, adopted for use in 1974, in the clothes worn by a woman standing with her arms crossed, dignified and in apparent defiance. Her head has been replaced by a bouquet of blooming roses, while a metal chain necklace bearing a pendant of the word "love" has been sewn directly around her neck. By juxtaposing the woman's stance and symbolic elements of the then-newly introduced flag with symbols of harmony and renewal, the work draws correlation between political resistance and regeneration, albeit with some ambiguity.



Figure 13. *Rohingya Portraits No.3* by Sawangwongse Yawngghwe. 2015. Sumi ink on rice paper (28 portraits). Collection of Singapore Art Museum.

Sawangwongse Yawngghwe's *Rohingya Portraits No. 3* highlights the humanitarian disaster and displacement of refugees from Rakhine State in Myanmar. The suite of 28 portraits are based on refugees who appeared in a photograph depicting them on the boat arriving in Bangladesh from Myanmar in an online article on TIME, in 2014, by Charlie Campbell. As Yawngghwe wrote of the impulse behind the piece: "I made the decision to portray them individually giving them each

a format of 'portraiture'. I do not know the individuals personally, the reason that compelled me to translate into the drawing pages was that I can relate to them. They are born and lived in Burma all their lives, are they not in this case my countrymen? The world is gripped by the horrors that have driven the Rohingya into Bangladesh, but these same horrors have been the reality faced by millions of ethnic people in Burma for several decades."

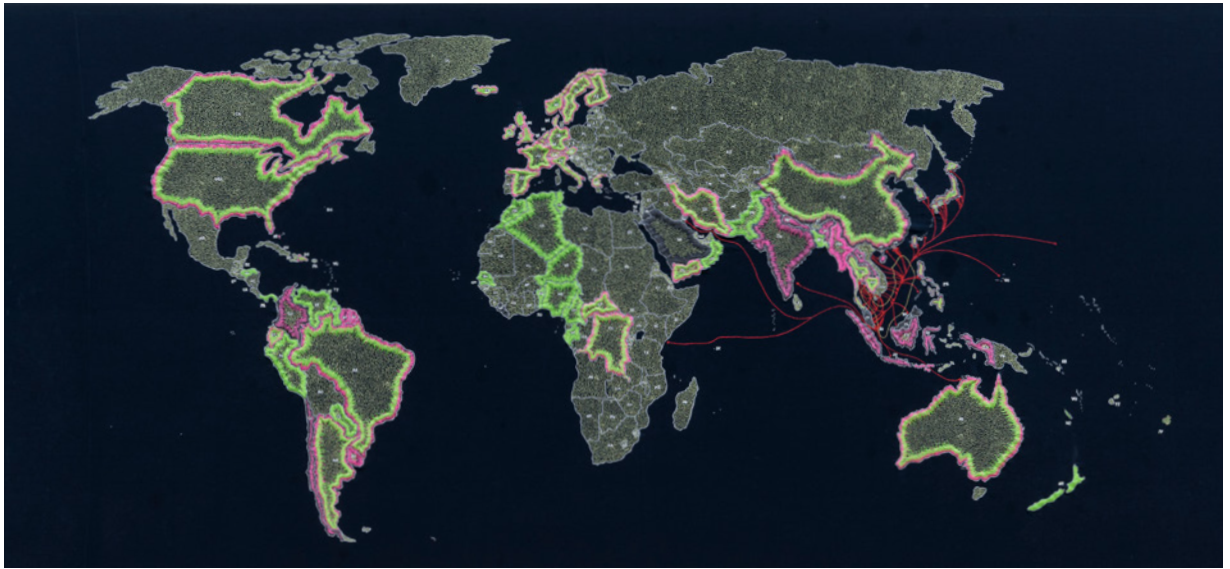


Figure 14. *reconstructing an exodus history: boat trajectories, ports of first asylum and resettlement countries* by Tiffany Chung, 2017. Embroidery on fabric. Collection of Singapore Art Museum.

Tiffany Chung's *reconstructing an exodus history: boat trajectories, ports of first asylum and resettlement countries* is a hand-embroidered map of the world which locates the departure point, route and ports of disembarkation of fleeing Vietnamese who left their homeland by boat between 1979 and 1989 as political refugees after the Vietnam war to other countries around Asia and onwards to other parts of the world. The map, comprising neon threading against a deep blue background, demonstrates the hand of the artist; from afar the thread work appears consistently even, but closer inspection reveals subtle variances in its stitching. These subtle slippages locate the artist in the work whilst reflecting on that which often goes undetected in historical narratives.

reconstructing an exodus history was produced within a wider series on historical amnesia, titled *The Vietnam Exodus Project*, that focused on the plight of the Vietnamese boat people in their attempts to survive perilous journeys out at sea to search for a safer life which, as other works in the series suggest, are no easier than that which they left behind. For Chung, her intricate maps layer different periods of history together to reflect the impossibility of accurately creating a cartographic representation of most places. As transgressions of space and time, they also unveil the connections between imperialist ideology and visions of modernity that still linger and influence the geopolitical and physical transformations of Vietnam and Southeast Asia.



Figure 15. *Journey of A Yellow Man No. 11: Multi-Culturalism* by Lee Wen. 1997. Inkjet print on paper, with accompanying video documentation of performance; Video: single channel, 4:3 format, colour and sound (stereo), 7 min 57 sec. Collection of National Gallery Singapore.

Journey of A Yellow Man No.11: Multi-culturalism is part of Lee Wen's *Journey of a Yellow Man* series (1992–2012). For Lee, the colour yellow came to symbolise for him the colour of the persecuted and the oppressed, as well as the ubiquitous racial stereotype of Asians. This work operates as both a performance documentation and artwork. It records the artist's performance executed during the Sept Fest Art Conference: "Multiculturalism in Singapore", held at The Substation in September 1997. At the conference, remaining full-clothed, Lee Wen covered himself in yellow paint, and presented a paper discussing the prevailing "conservatism" in Singapore art that privileged particular artistic mediums over other. Arguing

against the situation, where he perceived the overrepresentation of certain mediums such as watercolour, Chinese painting and calligraphy, and lack of visibility for 'experimental art' such as installation and performance practices during the period, the artist went on to form the letters C(hinese), M(alay), I(ndian) and O(ther) out of rice, and subsequently obliterated the arrangement. He then began to strip to his briefs, got into a bathtub and washed his yellow colour off. The performance ended by a bottling of the yellow bath water into several plastic containers, which were given away to the audience, with the artist claiming, "Now I am a water colourist too!"

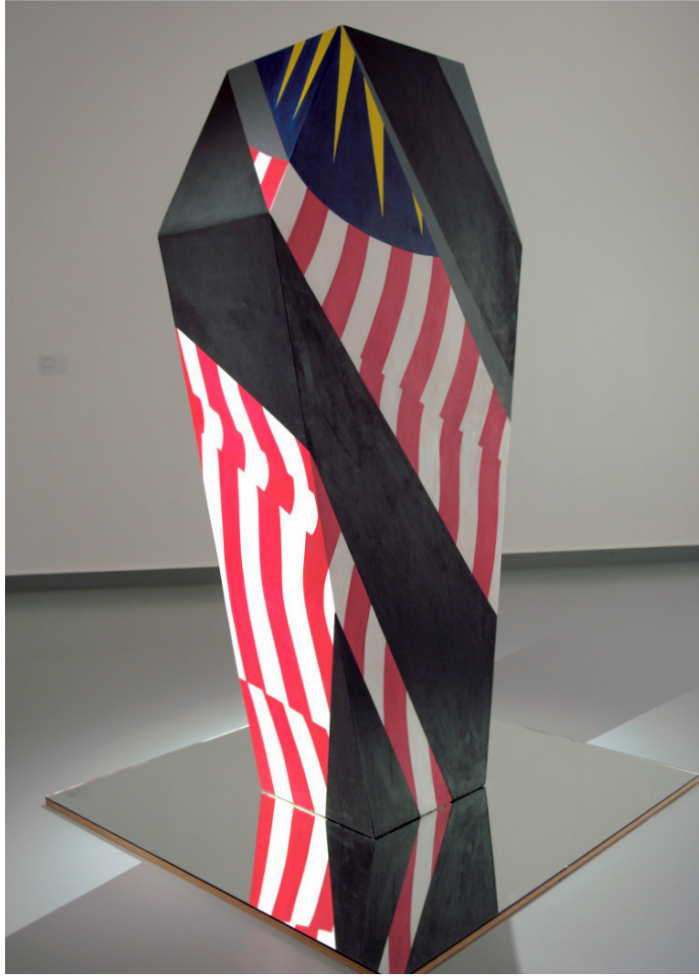


Figure 16. *May 13, 1969* by Redza Piyadasa. 1969, reconstructed 2006. Acrylic on plywood and mirror. Collection of Singapore Art Museum.

Redza Piyadasa's *May 13, 1969* was made in response to the deadly racial riots which erupted in Kuala Lumpur, Malaysia following the general election, leading to fatalities and a state of emergency. Although Redza Piyadasa did not witness the violence, he was shattered to see the destruction it had caused when he arrived there a few months later. For the first time, he felt "a sense of foreboding about the nation." This pessimism

is captured in this sculpture. Fragments of the Malaysian flag are painted on the surfaces of a coffin-like structure, which is mounted onto a mirror that serves to both connect the past and the present, and remind us of the fragility of ethnic relations in our societies. *May 13, 1969* was originally produced for the *Manifestasi Dua Seni* exhibition in 1970, making it the first time that Piyadasa addressed political issues in his work.

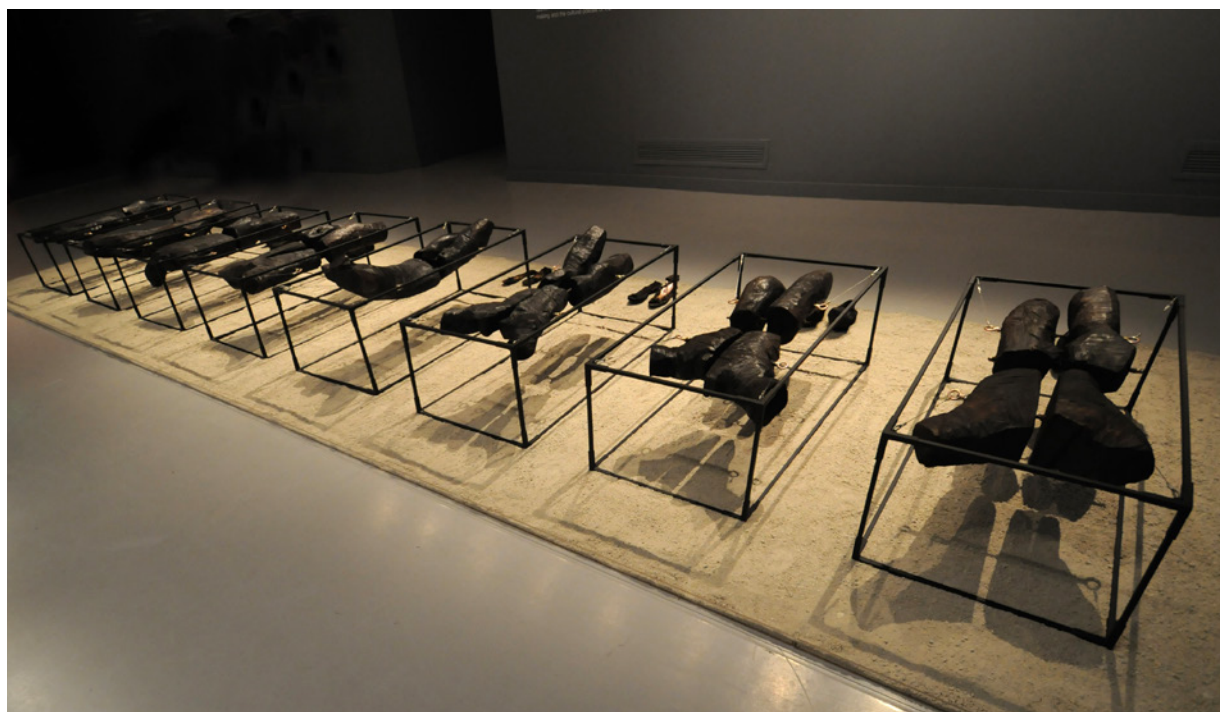


Figure 17. *Burned Victims* by FX Harsono. 1998.
Installation and performance video. Image courtesy of artist. Collection of Singapore Art Museum.

Conceptualised by FX Harsono as a performance-installation, the performance component of *Burned Victims* involved the burning of five wooden torsos, during which a placard was displayed to the audience, bearing the word *kerusuhan*, or 'riot'. In the work's installation component, the blackened remains of the wooden torsos are suspended in oblong metal frames, arrangements of regular lines which highlight the agonised contortions of the torsos. Placed before each torso is a pair of burnt footwear, rendering the figures even more forlorn. This performance-installation was made in response to a tragic episode of the May 1998 riots, during which the rioting mob stormed a shopping mall, sealed off its exits and set it on fire. The motives for such callous brutality remain unknown, but one possible explanation proposes the military as the instigator of the riots, which gave them free rein to

intimidate people and suppress student activism. Whatever the reasons—which remain unknown—the hundreds of people who were trapped and burnt to death in the shopping mall were all victims of a power struggle that culminated in the downfall of Suharto.

In an almost photo-journalistic fashion, the artist presents to his audience the scorching image of the victims' bodies, to elicit horror and condemnation of civil violence. This work, created in response to a particular incident during the May 1998 riots in Jakarta, is a powerful installation and performance from a critical turning point in both Harsono's art practice as well as the history of Indonesia. Like much of Harsono's earlier works, it makes a strong statement about the horrors of civil violence and the fate of the victimised masses.



Figure 18. *Air Pollution* by Made Wianta. 2014.
Motorcycle exhaust pipes, stainless pipe, dry ice, sound. Collection of Singapore Art Museum.

Made Wianta created *Air Pollution* to highlight the ecological crisis resulting from urban development and over tourism today. *Air Pollution* is a commentary on the environmental problems engulfing Bali today, as it transitions from a largely agrarian society into an increasingly urban sprawl. The installation comprises a snarl of motorcycle exhaust pipes, alluding to the traffic congestion plaguing Bali's roads. When it was first presented in Bali at the exhibition *Bali On The Move*, Wianta orchestrated a performance

where 'smoke' spewed out from the installation, and visitors were assaulted by a soundtrack of revving engines, adding to the overwhelming sensorial assault of an urban environment. While *Air Pollution* was created in response to issues in Bali, its commentary on the city and urban congestion could just as easily be applied to other cities in Indonesia (such as Jakarta), as well as to other rapidly developing metropolitan centres across the world.



Figure 19. *Untitled* by Khvay Samnang. 2011–2013.
5-channel video installation. Collection of Singapore Art Museum.

In this work, Khvay Samnang draws attention to what he perceives to be the exploitation of local communities and natural resources in the service of development, as well as of displacement and censorship. Beginning in 2010, the Cambodian government started offering Phnom Penh's lakes for private sale, which resulted in many of the lakes being filled with sand to make way for urban development. The reclamation of the lakes, which were important hydraulic systems and vibrant residential sites, has resulted in the displacement of over 4,000 families and the loss of livelihoods dependent on the lake. Many of those evicted were given little compensation. This became international news and resulted in persistent protest in Phnom Penh, even though protesters

were reportedly regularly imprisoned, abused, or ignored. Samnang made this work by illegally entering the five Phnom Penh lakes, bypassing the armed security to film himself pouring a bucket of sand over his head. As many of the lakes documented in this work no longer exist, Samnang's work also records the once-existence of these lakes and communities for future generations. It reflects the nature of development taking place in Cambodia, one that is arguably ignoring the needs of its people and communities. The title of the work also refers to the restrictions and control imposed by the Cambodian government, where the work could not be spoken about and described as lake-sites due to its highly political and sensitive nature at the time of its making.



Figure 20. *They Poach the Rhino, Chop Off His Horn and Make This Drink* by Tang Da Wu. 1989. Cloth rhino, 100 glass bottles, axe, video, dimensions variable. Collection of National Gallery Singapore
Performance © Tang Da Wu. Photo © Koh Nuang How; courtesy of Koh Nuang How.
Documentation of performance at National Museum Art Gallery, Singapore, 1989.

Following the Chernobyl nuclear disaster in 1986, Tang Da Wu began addressing social and ecological issues in his art, believing that art should provoke discussion instead of merely providing aesthetic pleasure or entertainment. *They Poach the Rhino, Chop Off His Horn and Make This Drink* was a response to the practice of hunting rhinoceros for their horns to be used for traditional Chinese medicine. It preceded another similar work by Tang, *Tiger's Whip* (1991) which continued to address the implications of a community's cultural beliefs upon the natural world, to the point that it could bring about the extinction of an entire species.

A combination of performance and installation art, the life-size papier-mâché rhino without a horn lying in the middle of the bottles of medicinal drink and in front of a white axe, alludes to the rhino's immense suffering and impending extinction. Made of paper, the rhino's fragility is further emphasised. In the performance, Tang, with his face powdered white, performs around the installation, delivering a moving address on the subject. This work poignantly highlights the role of consumerism in the destruction of nature and its contribution to our ecological crisis. □

Notes:

1. Also referred to in the media as the 6 October 1976 massacre, or in Thailand as the 6 October event.
2. Burma changed its name to the Union of Myanmar in 1989, and subsequently to the Republic of the Union of Myanmar.

Culture and Climate Change: The Value of Local Collections in Addressing Climate Change

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Using case studies from Australia, the author highlights how collecting institutions and local historical societies have an important role to play in responding to the challenges of climate change, from discharging their responsibilities of care for collections and providing critical data on how communities have historically responded to natural disasters, to supporting effective community rebuilding after crises and sustaining a sense of culture and identity.

Between November 2019 and February 2020, more than 478 people lost their lives in the catastrophic wildfires that swept across south-eastern Australia. Over 3 billion native animals were killed, and more than 3,000 homes were destroyed (Bradstock et al. 2021). Also lost were the thousands of objects and records held in family collections, local historical societies, schools, sports clubs, and other community organisations that help define a place and its people. With a long history of bushfires in Australia, previous fires had been blamed on firebugs or poorly maintained power lines. In 2020, the role of climate change became the key focus.

The Indo-Pacific region, to which both Australia and Singapore belong, is highly vulnerable to climate change. As wildfires ravaged south-eastern Australia in January 2020, flash floods in Indonesia killed 66 people and displaced over 60,000. At the same time, COVID-19 began to rip through communities. The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) found in 2020 that “climate-related disasters affected over 75 million people and caused almost 6000 deaths in the region” (Srivastava et al. 2021). ESCAP concluded that while COVID-19 caused more deaths, three times more people were affected by climate change (Srivastava et al. 2021). The United Nations

Office for Disaster Risk Reduction (UNDRR) published research that demonstrated a steep increase in climate-related disasters with 3,656 in the period 1980-1990, rising to 6,681 in the period 2000-2019 (UNDR and CRED 2020). In early 2021, the *Sixth Assessment Report of the International Panel on Climate Change* reported a worsening situation.

As public organisations that hold a nation’s history, reflect a nation’s identity, and contribute to a nation’s creative innovation, major collecting institutions and small local historical societies have a particular role to play in responding to the challenges of climate change. In Australia, the major state and national collecting institutions are situated in major population centres in urban environments along the coastline. With responsibility for the care of their collections, and as leading public institutions, they have the capacity to respond effectively.

In Australia’s largest city, Sydney, the Art Gallery of New South Wales includes solar panels for electricity production, rainwater harvesting, and a seawater heat exchange system for air-conditioning in its new building design, making it the first Australian public art museum to achieve 6 Star rating under the Green Star certification scheme—a sustainability ratings system for buildings established by Green Building Council of Australia (Green Building Council of Australia 2018). The Australian Museum achieved carbon neutrality with its Sustainability Action Plan, modifying the museum’s air conditioning units to help reduce energy consumption by 25%, replacing fluorescent lighting with LED lights, and eliminating single-use plastics (Australian Museum 2021). In line with its role in education and raising public awareness, the Australian Museum also hosts a website *Capturing Climate Change* where a range of individuals including

artists, public figures, and community members showcase their thoughts and experiences of climate change.

These actions, of mitigating their environmental impact and of creating public awareness, are reflected in public institutions across the globe. Yet for the small collecting organisations, of the kind most affected during the bushfires, their relationship to climate change is much more immediate and critical. Across Australia, there are millions of local historical collections, archives, and objects held in small communities and families. In rural, regional, and remote Australia, there are around 2,000 small museums, 1,000 historical societies, 160 local and regional art centres, 150 Indigenous art centres, 400 historic properties, and thousands of local archives of long-standing local businesses, community organisations, schools and universities, sports clubs, and the like (Deakin University 2002; Mansfield et al. 2014). They are situated in areas where environmental impacts are particularly severe: on the coastline or in the desert, and many do not have the resources to utilise substantial technological innovations. These collections remain extremely vulnerable to the impacts of climate change.

Remoteness does not equate to insignificance, and many of these places hold cultural material that is highly significant both nationally and internationally. This is the case with Australia's Indigenous art centres, located in some of the most remote parts of Australia, in places that may involve a day's drive along dirt tracks to the nearest town, and which may be cut off from road and air travel due to weather conditions during some periods of the year. Djambawa Marawali AM, Chairperson of the peak body, Arnhem, Northern and Kimberley Artists Aboriginal Corporation, describes these art centres as the

backbone of many Indigenous communities, protecting, preserving, and making accessible cultural material from the past. He argues that Indigenous art centres help to keep Indigenous knowledge and "culture alive in our blood and our soul", and that they are important in providing income for artists and employment for locals.

Safe keeping makes Aboriginal people feel really strong and proud and alive. Caring for collections is a really significant role. It is important to give real jobs to Aboriginal people caring for and looking after objects in their community museums. That way they can also learn to share the knowledge and the patterns and the stories for future generations (Scott 2017).

Crucial though they are to local communities, their location makes disaster response difficult. Warmun, a small Indigenous community of around 400 people in northwest Western Australia, was inundated by floodwater in 2011, after the Turkey Creek broke its banks. Submerged under turgid floodwater, artworks and objects in the Warmun Art Centre had to be airlifted out of Warmun, stabilised for three weeks before being packed and driven in a refrigerated truck 3,763 kilometres to Melbourne for treatment, where there was the capacity for the long-term conservation project that was required (Carrington et al. 2014).

On the other side of the country in Far North Queensland, the Bana Yirriji Art and Cultural Centre belonging to the Wujal Wujal community had to be rebuilt after being flooded in January 2019. Two months later and 650 km north of Wujal Wujal, Cyclone Trevor battered the Lockhart River community. Winds of more than 130 kph caused damage to the Lockhart River Art Centre and terrorised the community (Indigenous Art Centre

Alliance IACA 2019). Lockhart River is around 2,500 km (or a 30-hour drive) from Brisbane, so during the cyclone season it is difficult for supplies to be brought in and for conservators to respond to such disasters.

Other impacts occur as changing climate affects smaller community collections across Australia. For example, with changes in temperature and rainfall, the range of insect pests, such as termites, that can attack cultural material increases. This occurred at Wadeye, an Indigenous community near the northwest coast of the Northern Territory, where termites crawled up inside the wall and ate away the back of a significant Church panel painting that had been painted by senior men in the early 1960s. They left a thin layer of support and a damaged paint surface that required complex conservation treatment that has been ongoing since 2012 (Waters-Lynch et al. 2015).

Rising temperature and increased humidity require additional use of expensive air-conditioning. At the Warlayirti Art Centre at Balgo, the highest average temperatures above 40 degrees Celsius occur over eight months from September through to April. Over the year, the average rainfall fluctuates from 84.2 millimetres in February to 2.9 millimetres in September (Australian Government n.d.). With costs of air-conditioning in a small storage area at around A\$60,000 per annum, increased costs incurred by air-conditioning may reduce the financial ability of the art centre to create jobs for people.

Local collections also hold information about climate change. For example, in 2019, the Darling River at Wilcannia dried up during record droughts. This was a national disaster and created substantial public and political furore. A photograph from 1902, held in the Port of Echuca collection, shows the level of the Darling River at Wilcannia at the beginning of the 20th century (Victorian Collections). This kind of visual information adds to the statistical data around climate change, and helps scientists better understand the shifts and impacts in climate change. In Indigenous art centres, senior knowledge holders paint their stories of climate and record the impacts of climate change in ways that provide rich qualitative data for researchers (Barney et al. 2013).

Providing access for its citizens to their cultural, historic, and scientific heritage is a critical part of any civil society. Ensuring a sense of continuity of culture and identity is an important role for all collecting institutions, regardless of size and location. The significance of this role is particularly felt in communities that have suffered catastrophic loss from the impacts of climate change. Our cultural, historic, and scientific records are important tools in our understanding of climate change, but many are at risk due to climate change. Finding mechanisms to ensure that all collections are safeguarded into the future supports effective community rebuilding after a crisis. It also means that important data is secured for researchers to map climate change and its effects, and that critical material that will help in understanding how communities have responded to natural disasters in the past, is available to assist now and in the future. □

About the Author



Robyn Sloggett is Cripps Foundation Chair and Director of the Grimwade Centre, the University of Melbourne. Her research includes cultural material and climate change; the investigation of artists' materials and techniques; attribution and authentication; collection development and history; community engagement in conservation; and the preservation of cultural materials in Australian Indigenous communities.

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Endless Dreams of Cro-Magnon or a Perpetual Feast?

Professor Mitsuru Haga

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Throughout human history, we have faced countless crises of varying nature. But the biggest impending crisis of all is the possibility of extinction of the human race. Professor Mitsuru Haga shares his musings on the trajectory of humanity and offers insights on how we may navigate future crises based on Japan's unique experiences. In this uncertain and lonely future of humankind, art provides the space for contemplating on what it means to be human.

Le monde and l'homme

“Le monde a commencé sans l'homme et il s'achèvera sans lui,” states French anthropologist Claude Lévi-Strauss in his seminal 1955 work *Tristes Tropiques*. Translated, it means “the world has commenced without humans and it shall end without them”. The first half of this asseveration is a fact. When Earth was formed around 4,600 million years ago, we were not yet there. Based on this data, this great scholar concludes that we shall be extinct long before the termination of our planet. This would be the greatest crisis of all Hominina families. In fact, it should be an epigrammatic slogan of the United Nations.

However, I can never be such a pessimistic magnate like Lévi-Strauss. Humble as I might be, I feel obliged to try everything to avoid such a catastrophic future and prove that this great mind was wrong after all. To this don-quixotic resistance, all hands on deck to battle stations! (It is also interesting that the French scholar did not consider at all that the world might end with the Last Judgement as Christians have predicted.)

Continuous “replacements” or crises: the normal situation for 6 million years

Six million years ago, the Hominina family tree branched from genealogical trees that later became chimpanzees and bonobos; this is our “birthday.” Since then, our genealogical tree grew well and flourished with branches, just like a real woody plant. In other words, plurally different humans coexisted at the same time and there have been numerous “replacements” where older humans were substituted by newer ones. This is nothing but the greatest tragedy for the concerned extinct older humans.

Because if this has been the normal situation for 6 million years, then why not us homo sapiens, too? Isn't it safe and obvious to deduce that we too shall be replaced by a newer human? Extinction will be the greatest of our crises. We should engrave in our minds that we are only living this prosperity with our annihilation in view.

Lonesome homo sapiens: “Travellin’ All Alone” since 40,000 years ago

What is even more dreadful is that unlike the six-million-year long period where different humans coexisted, we are now lonesome cowboys

and cowgirls “travellin’ all alone” just as Billie Holiday sings. We are no longer accompanied by coexisting humans as was the case for so long. Therefore, if we, homo sapiens, become extinct, and if there is no one to pass the baton on, it would be the end of all Hominina families. The whole responsibility for disproving Lévi-Strauss’ proposition rests solely upon our shoulders.

“The last” replacement from Neanderthal to Cro-Magnon: culture to adapt to climate change

Given that mission to avoid a catastrophic crisis, it is of great importance to know what happened in “the last”, for now, replacement. Why did Neanderthals cease to exist and on the other hand we survived? From the massacre of the former by the latter to the possible annihilation of the former by a disastrous illness caused by a viral infection, these theories have no cogent evidence.

According to the studies by Professor Takeru Akazawa and his group, Cro-Magnon, i.e., Homo sapiens in the European region, had more capacity to adapt to climate and environmental changes. “Tool boxes” or “tool kits” are sets of tools for specialised activities such as hunting, fishing, collecting plants, or sewing. The “tool box” of the Neanderthal continued to be quite monotonous and did not change essentially for 170,000 years. It consisted of only stone tools for simple work with no effective hunting tool.

On the other hand, the “tool box” of Cro-Magnon had gone through rapid (almost every 10,000 years) change led by technological innovations, upgrading from Aurignacian to Gravettian

and Solutrean, Magdalenian types. These tools were made from a range of materials, not only stone but also bone and antler. Cro-Magnon upgraded various hunting tools and they even invented working tools, i.e., tools to make tools. Technological innovation to adapt to drastic climate changes was the reason we survived. Culture was the key to survive climate changes and the reason for the difference between the two; one is extinct and the other flourished.

Agriculture as environmental engineering: and therefore environmental burden and cause of crises

Then, is it safe to say that technological innovation is always a good strategy? The most innovative technology by humans of all time is agriculture. This is the human practice of cultivating plants and livestock that gradually started around 11,000 years ago in different parts of the globe independently. In other words, it is a human deed to load the natural environment so that Mother Nature should yield benefits for humans. By means of agriculture, we made nature subservient to us, and it enabled the human population to grow. However, this is exactly the reason why once we indulge ourselves in agriculture, we can never renounce it. If we stop agriculture, most of us should die from starvation. For the sake of nature, if we execute 100% non-chemical organic agriculture, according to some studies, harvest will be reduced to one-fifth of the present state. This means that we have to let die or kill four humans

out of five. This population pressure prevents us from stopping this human deed of contaminating nature. If “Anthropocene” is defined as an epoch dating from the commencement of significant human impact on earth’s geology and ecosystem, it started with agriculture. A Japanese agronomist Professor Yōichirō Satō goes as far as describing agriculture as a “forbidden fruit”—once we have bitten it, we can never go back.

The same goes for nuclear power technology and plants. We know that it contaminates nature, but we can’t stop it. Similarly, the Tokyo Olympic Games were postponed until 2021 because of the unexpected coronavirus pandemic situation which also cannot be controlled by modern science. It is again agriculture that triggered the tragedy. If we define cultural heritage as products of human activity, the SARS-CoV-2 coronavirus is surely one of them. The virus is also a global cultural heritage; a product of our historical, cultural and social activities.

In the distant past, among people whose lifestyles were based on hunting and gathering, the constituent numbers of each human group were very small and the groups were scattered in open savannahs. Once the majority of these small groups became immune, contagious viruses had no place else to go; thus, neither endemics nor epidemics could occur.

But when agricultural culture began, people started to live and work closer together. This should be the time when epidemics of influenza occurred for the first time in human history.

And ever since the ancient Sumerian city-civilisation of southern Mesopotamia rose, where the “Three Cs (closed spaces, crowded places, close-contact settings)” were formed, the 2020 pandemic was the inevitable outcome.

Somebody has said that now BC means “Before Corona”. Then AD would be “After Disaster”. What will “AD” look like?

Fukushima power plant meltdown in 2011: zenith of technological failures

Ever since the first flintknapper chipped the first stone to create the first stone tool in the Lower Palaeolithic Age, we have kept advancing technologically. Of course, one of the most advanced state-of-the-art technologies is the nuclear power plant. Fukushima thus reminds us that technology is a double-edged sword.

Based on the technologies, starting with stone-tool-making technology which was followed by various newer ones, humans created the civilised world outside and above the natural world. Thus, we deprived the Creator (i.e. nature), of the right and the ways to evolve. How arrogant we are!

The legendary king Gilgamesh of the ancient Mesopotamia epic destroyed the guardian of the Cedar Forest, Humbaba, and continued the adventure seeking eternal life. But a barmaid of Babylon admonished this rioting hero by saying “Gilgamesh, where are you roaming? You will never find the eternal life that you seek. [...] Savor your food, make each of your days a delight. Bathe and anoint yourself, wear bright clothes that are sparkling clean. Let music and dancing fill your house. Love the child who holds you by the hand, give your wife pleasure in your embrace. That is the best way for a man to live.” (Yajima 1998).

We too, the descendants of the successful Cro-Magnon, should listen to the barmaid. We should be conscious of how insolent and audacious we have been, and we must come out of the endless dreams of Cro-Magnon. And also let us be reminded that *in vino veritas* (translated: In wine, there is truth) and therefore let's go to a bar to *libiamo, ne' lieti calici!* (translated: Let us drink, happy chalices!)

“Unintentional monument” as a sign to think about ourselves

Art historian Alois Riegl in 1903 published a book, *Der moderne Denkmalkultus. Sein Wesen und seine Entstehung* (*The Modern Cult of Monuments: Its Character and Its Origin*), in which he characterised monuments by their commemorative value. By doing so, he expanded the concept of monument; including not just the conventional positive *gewollte Denkmal* (translated: intentional monument), but also every other negative *ungewollte Denkmal* (translated: unintentional monument).

The latter type of monument has historical value which arises from the particular, individual event or moment in the course of human history, and the perception of this moment is left to this interpreter's subjective preference. In Riegl's concept, there is another third class of monuments characterised by their age-value, or *Alterswert*, which requires no scientific or art historical knowledge to appreciate the monument.

Thus “monument” sublimates from the state of “instrument that serves only those in power” to a higher state of “shared heritage of all humankind.” The German term “*das Denkmal*”

is composed of two parts—*das mal*, meaning stain, sign, or indication, and *denken*, meaning to think, consider, meditate. It is rather *ungewollte Denkmal* than *gewollte Denkmal* that is precious and that contributes to us humans as “sign to think” about ourselves and about our future. This is because it is not just the moveable remains of disasters, but especially the memorial ruins of disasters with positional information that are important examples of the *ungewollte Denkmal* of the Great East Japan Earthquake and tsunami.

Japan as frontrunner of finding answers for a unique set of newly emerging issues

Professor Hiroshi Komiyama evaluates and advocates “Japan as an advanced country in problems (課題先進国日本)” in his book with the same title published in 2007. He expounds on Japan no longer being a country that is trying to catch up with and absorb advanced civilisations such as the Chinese (from ancient times for centuries) and the West (since 1868 when the Meiji period started), but rather a “frontrunner” of finding answers for a unique set of emerging issues that few other countries are facing, like environmental problems, declining birth rates, depopulation, population ageing, and energy supply problems.

These include natural disasters and radiation hazards, the most recent catastrophic ones being the 2011 Great East Japan Earthquake and tsunami, and the melt-down of the tsunami-hit Fukushima nuclear power plant. The Japanese regret and reflect deeply on our failures, and therefore, we struggle and fight back. We

willingly share these hard-won achievements with the world.

For example, Japanese scholars have published a detailed paper in an international academic journal about handling methods for cultural heritage that is contaminated by radioactivity, which is the first such case in the world (Sano and Yamamoto 2015). Some of the lessons are;

- Since radioactive iodine in the air has a half-life of eight days, people should not approach the radioactive contaminated zone for at least eight days, preferably three half-lives, or 24 days.
- Because radioactive caesium ends up in the soil, one should study and analyse the currents of the air, rain and geographical features of the land. Mapping the contamination status and following this with an official announcement by the government are needed.
- Storage walls should be thicker than 20 cm. Air-conditioners should be stopped, so that contaminated air does not circulate.
- Archives, libraries, and museums are good refuge shelters.
- Geiger-Mueller counters are needed. Cultural properties with more than 1,300 counts per minute should be left behind.
- Workers (preferably male) should be in their 50s or older.

After the incident of Chernobyl, it seems that there are no reports about radioactive contamination of cultural properties. But mentioned above are the specific measures to rebuild confidence and a sense of pride and belonging of the local community and so as to prevent further destruction of cultural heritage.

In ancient times, kings and emperors trumpeted their glories by means of *gewollte Denkmal*. In the modern world, we should share our problems. Please learn from our hard-learned *ungewollte* lessons.

Art as visual philosophy: a Japanese painting that depicts perpetuation

Art has no power when earth trembles and devastating waves attack. After those desperate moments, if one is still alive, those functions of *Nachtwächterstaat* also known as night-watchman state (i.e. police and military), become essential, followed by the fruits of science and technology (i.e. bulldozers and trucks for salvage). To know what happened and to evaluate the situation, subjects such as seismology, geoscience, and oceanology are required. Then to relieve and rebuild the local communities, jurisprudence, politics, and economics come into play.

And art? Is it “summer fires and winter fans (夏炉冬扇)”, or in a word, useless? In a sense, yes. Because art has no power that could overturn the physical order of the nature. It could only ratify it as such; stone is stronger than wood, and stone is stronger than water. Ratification of the physical order of nature had been the human way of recognising of the world before the religious mind was aroused in us.

Gradually, primitive religious cognition emerged. That is to view the world in a way to sense something that transcends the physical order, for example to consider that wood is stronger than stone because the former has life force, or that water is stronger

than stone because rushing streams can move and even pierce the latter. These lofty sensing and affections standing aloof from the physical order of the nature is the primitive religion.

This encouraged an attitude to transcend spatial and temporal order of nature and caused an interest to the effect that the visual sense and tactile sense have over sensitivity, thus creating art that has no practicability nor usefulness. It does not possess utilitarian value. But art transcends physical order of nature, and thus, salvages souls and helps rebuild the pride of the people. A famous private investigator Philip Marlowe in the hardboiled fiction created by Raymond Chandler said in *Playback*, “If I wasn’t hard, I wouldn’t be alive. If I couldn’t ever be gentle, I wouldn’t deserve to be alive”. We struggle to stay alive, but without gentle souls and honourable pride we do not deserve to be alive.

When art is a visual philosophy, a visualisation of how we recognise the world, what would be the principal aim and philosophy of lives on earth? Which piece of art would express this philosophy best?

It is perpetuation. And, I would say, that one particular art piece would be a 17th century Tokugawa period painting, *Family enjoying the evening cool* (紙本淡彩納涼図 / 夕顔棚納涼図) by Kusumi Morikage (Figure 1) which depicts “a peasant family lounging under a calabash-vine arbour, basking in the twilight atmosphere of a cloud-draped moon at the close of a sweltering Indian summer day. [...] The artist, by consciously using diluted ink to suggest the twilight hour, has poignantly captured a harmonious moment of family life.” (National Treasures & Important Cultural Properties of National Institutes for Cultural Heritage n.d.)

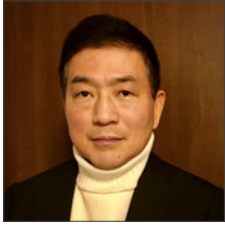
The family does not live in a luxurious palace but in a humble hut. They are not surrounded by treasures but enjoy the evening cool after a quick bath and appreciate the moon. Nothing here, even the moon, is abiding, but therefore, the world presented here is sustainable. They are contented and fed by a perpetual feast. What is depicted here is a humble Japanese take on “Savor your food, make each of your days a delight. Bathe and anoint yourself, wear bright clothes that are sparkling clean. Let music and dancing fill your house. Love the child who holds you by the hand, give your wife pleasure in your embrace. That is the best way for a man to live” as the Babylonian barmaid said to Gilgamesh.

If we show this painting to Claude Lévi-Strauss or to the whole *l’homme* of the modern world, what would the latter part of the epigram or the future of *le monde* be? Hoping for the best, let us work together for a perpetual human future. □



Figure 1. Kusumi Morikage, *Family enjoying the evening cool* (紙本淡彩納涼図 / 夕顔棚納涼図), Tokugawa period / 17th century, one two-fold screen, light colour on paper, 149.1x165.0 cm. National Treasure, Collection of Tokyo National Museum. (Image retrieved from Tokyo National Museum Digital Research Archives: <https://webarchives.tnm.jp>, accessed 2011-9-15)

About the Author



Professor Mitsuru Haga is a Professor of Tohoku University, Japan, and his fields of specialty are Ancient Greek and Roman, Ancient Central Eurasian Archaeology, as well as Higher Education Theory. Following the path of Alexander the Great, he has excavated a Greek-Kushan City in Uzbekistan and has been studying the transmission of iconography of Greek mythology towards the East, in which Buddhism played an important role. His present positions also include Vice-Chairperson, Memory of the World Committee for Asia and the Pacific Bureau, UNESCO and Vice-Chair/Bureau member, Japanese National Committee for UNESCO Memory of the World.

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A Changing World: Culture Disrupted

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From virtual reality and augmented reality to non-fungible tokens, new and emerging technologies are presenting novel platforms for arts and cultural institutions to reinvent their practices and develop innovative solutions for cultural experiences and audience outreach. The co-founder of REMIX Summits provides an insightful overview of these trends and the opportunities they afford.

Technology has already disrupted much of the creative industries over the last few decades. It has been more than 20 years since the launch of the file sharing service Napster, which fired the starting gun on a revolution that sent music, television, and film down digital pathways, turning industries on their head. Similarly, while the humble book will always be with us, it has evolved into a digital product, with the release of the Kindle e-reader by technology company Amazon in 2007 marking a milestone in e-books going mainstream.

Cultural institutions have of course been buffeted by these same forces. However, the experience of visiting a cultural institution is largely the same as when the Ashmolean, arguably the first public museum in the world, opened in Oxford over 300 years ago.

Predicting the future is a fool's errand. But could it be that in the next 10 years, we will see changes in the way we create and experience cultural and creative content that mirror the profound shifts in other creative industries such as publishing and music?

There are a number of technological markers that perhaps point to this scenario. These include the potential impact of AI (Artificial Intelligence), Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), as well as the blockchain

and NFTs (Non-Fungible Tokens). This list is by no means exhaustive, but their applications will demonstrate some of the seismic shifts that are underway.

The inexorable march of technological change continues to speed up (and of course the pandemic has played a role here). The transformation underway is also being accelerated by changes in audiences whose expectations have been changed in a digital realm of on-demand products and services from Uber to Netflix. Increasingly realistic and interactive computer games have the potential to transport us to the virtual worlds promised in novels such as *Ready Player One*, where we can visit any period in history without ever needing to set foot in a museum. Digital experiences such as these will become ever more immersive with the continual improvement of technologies such as VR, Haptic Technology, and even Digital Scent technology. Even while mainstream adoption still eludes VR, start-ups such as Zero Latency have grown an industry which has seen hundreds of free-roam VR experiences open across the globe over the last few years. How long will it be before these experiences move beyond shooting zombies to exploring alternative content? Narrative-driven immersive entertainment experiences such as Jeff Wayne's *The War of the Worlds* in London already use a combination of VR plus real actors to transport visitors into the dystopian universe of the classic H.G. Wells science fiction novel.

The Second Coming of VR

While widespread adoption of VR in the home has not quite panned out as predicted, it may just be a matter of time as the technology develops.

Headsets such as the Oculus Quest 2 (owned by Facebook) are now untethered (headsets that do not require a wired connection to a powerful and expensive PC), offering the possibility of a convenient, easy-to-use, high quality VR experience at an affordable price. Facebook recently revealed they have sold 4 million of these units.

Facebook's purchase of Oculus underpins their belief that the internet is about to move into a new phase. This has been called the *metaverse*, a collection of "virtual environments, experiences and assets" (Herrman and Browning 2021) where we use VR and related technologies to create and collaborate in entirely new ways. Facebook recently announced *Workrooms* which uses the Oculus Quest 2 to allow multiple people to meet and brainstorm in a virtual room (as a more immersive and social remote working alternative to Zoom). They believe it could offer a genuine alternative to in-person meetings. Time will tell whether this vision will come to fruition but market research firm IDC predicts that spending in the VR space will grow to US\$72.8 billion by 2024 (up from US\$12 billion in 2020), driven by potential use cases across multiple industries from construction to medicine.

Another factor that could drive the growth of virtual worlds is the emergence of low-cost scanning technologies that allow us to capture objects quickly and easily with little or no technical know-how. LiDAR technology (Light Detection and Ranging) can now be found in the latest iPhone and iPad models. This means that millions of people all around the world can now use apps like Polycam to scan objects in 3D, which could include cultural objects, heritage sites, and institutions for example. Think about what the smartphone has done for photography, and the potential of scanning technologies to effect a similar impact as we march off into the metaverse.

For many visitors, the joy of collections comes from wonder of seeing the actual object. However, with VR, that object can be placed in context by recreating the historical environment around it. We can do things with the object that we could never in an institution, including picking it up and manipulating it to see it from multiple angles. For many who might never get to visit artefacts in far-flung parts of the world (or who might not want to visit for other reasons such as growing environmental concerns over air travel), it is another way of engaging. Virtual experiences also offer another solution to the problem of over-tourism.

Don't simply replicate the physical experience

The pandemic has ushered in a myriad of digital tours of galleries and museums around the world. This might tick the minimum viable product box (in that it is better than having no digital presence at all) but the hard reality is that with the huge competition for eyeballs in the digital space, they will not keep users coming back for more when the competition is Netflix, Roblox or Minecraft.

For me, some of the most engaging digital cultural experiences take the user on a journey they cannot experience in the real world. For example, The Royal Shakespeare Company's multimedia performance piece, *Dream*, was a magical foray into the enchanted forest that forms part of the setting for *A Midsummer Night's Dream* by William Shakespeare. The online environment was created in a popular gaming development platform Unreal Engine by Epic Games and animated by real actors through

live motion capture. An interactive soundscape was created by the Philharmonia Orchestra. *Dream* even opened up new business models for the theatre company with paying members of the online audience getting an interactive experience (or you could be a passive watcher for free). *Dream* was an experiment and these technologies remain work in progress. The company estimated that 25% of the audience were first-time patrons, revealing the potential of technology to reach both non-traditional audiences and those who may never get a chance to experience the theatre in person.

Blurring the physical and digital

The hybrid model that blurs the line between the physical and digital is here to stay. Digital immersion in art in the real world is already proving hugely popular in other ways with audiences. Atelier des Lumières which opened in 2018 in Paris uses proprietary technology to create projections that bring alive the work of artists like Van Gogh. With 1.1 million visitors in its first year, additional locations are planned over the next few years. Perhaps the best evidence of demand is TeamLab, a creative collective of interdisciplinary artists and technologists founded in 2001 whose digital artworks have been featured at cultural institutions around the world. In 2018 they decided to cut out the middleman so to speak and opened their own permanent space, TeamLab Borderless, in Tokyo. In its first full year of operations, over 2.1 million people visited, making it the most popular cultural venue in the world by a single artist (or collective in this case), overtaking the Van Gogh Museum in Holland.

The growing number of creative entrepreneurs building these new digitally-enabled experiences has the potential to disrupt the status quo. There are a multitude of opportunities for co-creation and collaboration with creative creative entrepreneurs—something that is at the heart of our work at REMIX. This is one solution to digital innovation in the cultural sector but we need to do more than just scout for the best collaborators. Rather we need to be brave enough to hand them the keys. For example, REMIX recently developed a new experience strategy for State Library Victoria in Melbourne, one of the world's most visited libraries with over 2 million annual visitors. One initiative within this is Alchemy, a project designed to develop incredible new experiences through collaborations with leading creative entrepreneurs and experience designers across Victoria. A key objective was to also develop business models and long-term partnerships that would make these sustainable rather than one-off projects. Ideas supported included a new content series developed by an Australian TikTok influencer with 350,000 subscribers and millions of views, which can potentially reach a whole new audience for the library.

Cultural institutions can play a vital role in building this creator economy, which has the potential to support their own digital metamorphosis. As an example, REMIX collaborated with ACMI (Australian Centre for the Moving Image) to develop a concept called ACMI X, the first co-working space in a museum in Australia. Some of the creative enterprises that took up residence also helped provide a new creative engine for ACMI that has influenced the organisation's public programming. ACMI X tenant Grumpy Sailor developed the award-winning immersive *Mad Hatter's Tea Party* as part of ACMI's *Wonderland* exhibition.

Partner with content creators

Many organisations have also utilised platforms such as YouTube to publish talks and videos. It is interesting that the most popular cultural institution on YouTube is actually not one of the most visited. The Field Museum in Chicago has about 1.5 million visitors and 592,000 YouTube subscribers. Its digital footprint compares favourably with cultural juggernauts such as The Met Museum (6.4 million visitors in 2019 versus 281,000 subscribers).

More importantly, beyond the simplistic measure of total subscribers, the engagement levels in the form of views per video achieved by the Field Museum are much higher than any of the others. The secret lies in their approach. In 2013 they appointed Emily Graslie, a popular YouTuber and Science Communicator as their first ever "Chief Curiosity Correspondent". As part of the deal, her channel, *The Brain Scoop*, came with her. The museum recognised that Emily (rather than the museum) was key to reaching this particular audience and Field Museum branding was relegated to a small logo. However, the canvas provided to Emily by the museum was incredibly valuable in making the partnership a success. She was given free rein to turn the museum into a giant studio, given access to experts, collections, and content as well as to the museum's extensive network of contacts, including other cultural institutions.

Few other cultural institutions have adopted a strategy of actively working with creators and social media influencers to develop content (and new audiences). This feels like a missed

opportunity. Perhaps the most compelling indicator of the success of the experiment is found in the subscriber count for the official Field Museum YouTube channel, which stands at 6,000.

Developing digital audio experiences could be another fertile ground for cultural institutions. Podcasting is making headlines with a massive growth in audiences. For example, 60% of US adults ages 18 to 34 listen to podcasts monthly in 2021 (*Insider Intelligence* 2021). Cultural institutions such as the Metropolitan Museum in New York have recognised this trend, which has recently collaborated with Nate DiMeo, host of the popular Radiotopia podcast *Memory Palace*, to tap into his audience. Creators are benefitting from an associated growth in advertising dollars with 2021 marking the year podcasting becomes a billion-dollar industry (*Insider Intelligence* 2021). Creators have also been using platforms such as Patreon to convert superfans into regular paying supporters. Patreon is also popular with YouTubers and there are now 200,000 creators using the platform with 6 million active monthly patrons who have contributed over US\$2 billion dollars to date (Patreon, n.d.).

Once you build a community that is passionate about what you create, you can then monetise that relationship to sustain and grow your creative practice. More and more creators are using crowd-funding platforms like Kickstarter, Indiegogo, and GoFundMe which are part of a US\$12 billion-dollar industry (2020), and predicted to more than double by 2027 (Precision Reports 2021). Crowd equity which allows fans to directly invest in creative enterprises among others has also picked up steam as a concept. UK immersive experience pioneer Secret Cinema recently raised £4.7 million from fans and investors on CrowdCube to fund its growth.

NFTs—hype or the real deal?

Digital art has been with us for a while but establishing proof of ownership of digital content, which is critical to allow artists to make a living, has always been a challenge. Pioneers such as Sediton, an online platform for Digital Limited Edition Artworks tried to solve this problem with some success through a digital vault model where buyers of digital works could sell them to others. Well-known artists such as Damien Hirst and Tracey Emin have sold digital editions through Sediton but it is a closed marketplace. The invention of Non-Fungible Tokens (NFTs short) provides a universal solution to establish ownership of any piece of digital content, which is a game-changer for artists and other content creators. Utilising blockchain technology, NFTs provide an incontestable certificate of ownership of a digital work.

NFTs are disrupting the art world and things are moving incredibly fast in this space. NFT art marketplaces like SuperRare, which has clocked over US\$90 million worth of NFT art sales since its launch in 2018, have sprung up. OpenSea, the leading marketplace for NFTs, logged an incredible US\$3 billion worth of transactions in August 2021 alone, 10 times the amount in the previous month. Even traditional artworld players like auction house Christie's have come to the party with their first ever sale of an NFT artwork, lending further credibility to the digital art space. Mike Winkelmann aka Beeple, the best-known digital artist, astounded the world when his work *The First 5000 Days* sold for US\$69.3 million (the third highest price ever achieved for a work by a living artist after Jeff Koons and David Hockney).

NFTs also solve another problem. In the real world, once an artwork is sold by the artist, beyond the original purchase price, they derive no further financial benefit even if it appreciates in value. Each time a work by Beeple is sold he receives 10% of the sale price.

Do NFTs have a strong use case? Yes. Are people paying crazy sums for some pretty ordinary art? Probably. Only time will tell but we should bear in mind that most of us are still catching up with a generation where viewing, sharing and trading digital stuff is a normal thing. With digital art you can display the work both on a screen but also anywhere on the internet reaching huge audiences. There is also the potential for NFTs to be applied to physical artworks as well as other real-world applications, so the potential of this technology will continue to grow.

So are we moving to an inevitable digital future and how do we prepare?

While the focus of the thought bubbles in this essay seems to be a commentary on the seemingly inevitable impact of technology on how we create and experience culture, it always seems to be the case that for every trend there is a counter trend. Some creative experiences such as Secret Cinema, which stages award-winning immersive shows that bring to life the worlds of movies and TV have grown in popularity because they are easily shared on social media platforms. However, they have found that many in the audience increasingly want to leave their phones at the door to fully

immerse themselves in the story worlds they have created around properties such as *Blade Runner*, *Stranger Things* and *Back to the Future*.

For all of the new possibilities that technology brings, we also need to remember that not everything about modernity is positive. Many cultural institutions such as the Natural History Museum have taken a stand on big issues such as climate change, so one would think they are unlikely to accept Bitcoin in return for an exhibition ticket anytime soon unless it cleans up its carbon footprint.

There's no going back!

Digital is also driving people to real world cultural and creative experiences and one of the biggest players in this space might be surprising to some. Airbnb has been described as the largest hotel in the world with more listings than the largest hotel chain has rooms. Could it soon become the biggest cultural experience provider as well? Airbnb Experiences is a marketplace for experiences and already offers hundreds of them in the Arts and Culture category. These include street art tours, heritage walks, photography, and jewellery making classes.

Museums need to embed digital into their DNA and not merely see it as a tool or return to old habits as we emerge from the pandemic. To do this, they need to build a culture of experimentation and risk-taking. They also need to accept that some of these experiments will fail but will provide lessons that will better equip them for future endeavours. They need to invest in new skills and capacity and be great collaborators to take advantage of the opportunities.

They should be continually scouting digital trends to understand what is coming around the corner. Technological change continues to accelerate, audiences are changing, and new competitors are appearing from everywhere.

Digital is challenging our notion of who is a creator and what is a creative or cultural experience. Personally, I think that is a good thing. □

To read the full-length essay, please visit Culture Academy's website.

To delve deeper into the case studies featured in this essay, visit REMIX Academy, an on-demand archive of hundreds of talks by innovators exploring the future of the creative industries (<http://www.remixsummits.com/>).

About the Author



Peter Tullin is the co-founder of REMIX Agency which explores the future of the creative industries and takes place in cities including London, New York, Sydney, Singapore, Istanbul, and Dubai, partnering organisations including Google, VICE, Bloomberg, and Time Out. He is a creative entrepreneur and co-founder of CultureLabel.com, a venture-capital-funded e-commerce site selling art and design products from over 500 leading culture brands and artists including Tate, V&A, and Guggenheim.

Author of *Intelligent Naivety*, a handbook to help creative entrepreneurs turn their ideas into reality, Tullin also works as a consultant through REMIX Agency and has recently developed the vision and strategy for ACMI X, a new co-working space for moving image and creative tech entrepreneurs at the Australian Centre for the Moving Image. Other notable projects include developing StartSpace, a hub supporting early-stage entrepreneurs, at State Library Victoria, and helping to create Google Cultural Institute, Paris. Tullin is a board member of Museums Victoria and Geelong Arts Centre, and a member of the Minister of Creative Industries Advisory Group in Victoria. He was named in Courvoisier Future 500 and is a Clore Fellow.

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Cultural and Technological Disruptions

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With the digital space becoming the common, dominant medium for transmission and proliferation of ideas and experiences, it is an increasingly pressing challenge for the arts and cultural sector to navigate and utilise this space effectively. This essay examines the multitude of challenges and opportunities of the digital realm for arts and cultural institutions, and explores some emerging approaches and solutions.

Anxiety over technology's impact on the arts and culture is neither novel nor inventive, with this theme revisited with greater fervour at the turn of each industrial revolution. Artistic practices have always been shaped by the technologies of its time, and terms such as "new media art" have their roots in the late 1990s/early 2000s and essentially refer to art enabled by emerging and new technologies of the day. In the present-day context, we commonly associate it with artistic creation through digital technologies, such as artwork that engages with the internet-as-a-medium, or virtual art that presents a layer of immersion and interaction that fundamentally alters the dimensionality of art.

Beyond artmaking, the digital revolution of the 21st century has seen the channels of distribution both expand and contract, creating a tension that oscillates uncomfortably between opportunity and tyranny. The paradox is that while the digital medium has enabled communication-at-scale and a world without borders which in theory opens a whole new world of opportunities for artists and cultural practitioners, control of the channels of distribution resides with the few and powerful such as social media and market-dominant platforms like Netflix, Instagram, Facebook, Spotify, and the like. Issues such as net neutrality are thus fundamental in ensuring a level playing field, but it is still essentially a pay-to-play market dominant system, and herein

lies the crux of the issue. More so than any gap in skills or lack of endeavour, one of the main challenges for the arts and culture community is how to navigate this highly congested and contested digital space to carve a sustainable niche for itself.

In examining this challenge, it is first necessary to define the characteristics of the digital space within which we operate. The first characteristic is that digital space is also a psychological space. One of the key challenges that arts and cultural institutions face is the competition for the time-poor, rather than the cash-strapped audience. If we think of the digital domain as a space that is both intangible and inexhaustible, we also acknowledge that its currency is attention and participation.

Secondly, digital content is often expected to be free. This characteristic stems from the conception and perception of the internet as a common good. In Singapore, the National Arts Council's survey results on digital arts consumption (26 March 2021) revealed that 85% out of 3,314 people surveyed opted for free content, while only 15% paid for digital content (Ong 2021). When free content is the default within the market, the game has fundamentally shifted as the audience (or more specifically the data related to the audience) is now the source of leverage for company and organisations wishing to capture value from this segment. In the digital or online space, it is not necessarily about what audiences are willing to pay to consume online content, but what advertisers are willing to pay to content creators. The arts and culture sector has arguably not yet caught on to the nuances of this disruption and how to better navigate this space so as to be financially sustainable.

A third and final characteristic worth mentioning is that digital content is infinitely replicable and

transmissible and thrives on micro-exchanges that build upon what is commonly known as the “network effect”, the phenomenon by which the value derived by the user increases with the number of users of compatible products or platforms. It is thus scalable by default and social by design. It thrives on social media, and mobile-first engagements, and communicates in a language that can be both abstract and alienating for the uninitiated (for example in the case of memes, micro-trends, and challenges).

How are these relevant? While these issues pre-date COVID-19, the pandemic has enforced a digital-by-default mode of working, interacting, and consuming for a prolonged duration to the extent whereby habits and behaviour have been invariably changed. The arts and culture sector’s value chain was severely disrupted—after all, a digital-by-default online performance simply pales in comparison to well-produced big budget content by large studios and corporations such as Disney and Netflix, and does not fare well either against the marketing-friendly model of three-minute click-bait videos aimed at maximising digital advertising revenue. In short, arts and culture content for the digital space is not able to benefit from the current value chain right now.

As such, there is a pressing need for the sector to generate new approaches to how it wishes to navigate the digital realm, and also define what success is for the sector even as it drives the technology agenda forward. The Australia Council for the Arts for instance has recently put forward its Digital Culture Strategy (2021-24) to guide its approach and priorities for digital development. By doing this, it believes that it can harness the opportunities presented by the digital and broad then social, economic, and cultural value of arts and culture. It also notes that digital technologies are fundamentally changing how people engage with and experience arts and culture, and that

developing digital capabilities will enable a more dynamic and resilient arts and cultural workforce (Australia Council for the Arts 2021).

Issues around the impact of technological transformation certainly pre-date the COVID-19 pandemic. Since 2013, Arts Council England, the Arts and Humanities Research Council, and Nesta, the UK’s innovation agency for social good, have commissioned an annual report on digital culture, providing insights on how arts and cultural organisations in the UK use and are impacted by technology in the face of disruption brought about by digitalisation (Arts Council England, Nesta, and Arts and Humanities Research Council, n.d.). The report provides a rich set of data and observations that is largely relevant to arts and culture sectors globally. It focuses on three areas: business models and income generation; audience development and data use; and research and development.

Some key trends highlighted in its 2019 report (pre-pandemic) are that only 22% of organisations find that digital technologies have a major impact on their revenue and profitability, which implies that over three quarters of organisations have yet to derive major benefits from digital technologies in this key business area. In terms of perceiving the importance of digital marketing, digitalised operations as well as preserving and archiving poll results, over 74% of organisations surveyed (88% for digital marketing) accord importance to the role of digital technology in those activities, as compared to 49% for impact on business models.

A well-rounded report released in March 2020, *Supporting Culture in the Digital Age*, by the International Federation of Arts Councils and Culture Agencies (IFACCA) asserts that the digital age entails new logic, one that is linked to collaboration, connection, and horizontality, and observes that we are now dealing with a new type of audience from that of past decades,

and that the rise of streaming and social media is rendering obsolete notions of ownership and collection, particularly for younger generations (Kulesz 2020, 28). The emergence of a digital experience sharing economy that is connected and communicates only through digital channels also means that arts and cultural institutions that wish to maintain a digital presence need to tap into that greater collective desire for engagement, and this is likely to fall beyond their tried and tested methods. Particularly for many of the smaller arts and culture practitioners, the lack of know-how, resources, and time to invest in exploring these connections form the greatest barrier.

It is certainly not all doom and gloom for the arts and culture community in Singapore. As we gradually move to define our post-pandemic operating norms, we have seen the sector rally and reinvent itself to emerge more resilient from this generational crisis. One notable example can be seen in home-grown theatre company The Theatre Practice, who has responded admirably to the challenge. It pivoted quickly to the digital format with well-thought-out and made-for-digital sessions across its theatre classes, as well as an online learning edition of its acclaimed *Four Horse Road* production as a learning and teaching resource for teachers and educators. In August 2021, it launched a new performing arts series, *It's Not About The Numbers* which comprises six live in-person programmes for audiences as small as one (Chia 2021). Artistic director Kuo Jian Hong professes that smaller settings will allow audiences to “discover intimate connections through bite-size adventures and surprising encounters” and that smaller audiences make works more resilient in the face of such changes (Chia 2021). What is heartening is how the company has quickly set aside the

disappointments resulting from the crisis and grasped the opportunities instead.

Museums in Singapore have also moved to embrace a digital-first approach as they step up digital offerings both online as well as onsite. Reaping the benefits of its DigiMuse Culture x Technology innovation programme set up in 2017, the National Heritage Board's (NHB) portfolio of museums and institutions was able to respond quickly to the crisis. The National Museum of Singapore's *An Old New World Digital Edition* online exhibition demonstrated the value of such digital experiences through good quality digital content and presentation. The Asian Civilisations Museum also released a digital version of its newly launched permanent galleries on Fashion and Textiles, Jewellery and Ceramics to increase access to its galleries. NHB was also able to scale up its prototype solutions to launch several AI-enabled chatbots within three months to provide digital access to museum content including translations, interactive games, and augmented reality experiences for its visitors in place of touch-based experiences. This also marks a significant milestone towards more customised and personalised experiences for its visitors, as it adopts a data-centric approach in keeping with technology and industry trends.

Since 2017, NHB has been steadily building connections between the culture and technology sectors through DigiMuse, which has provided steady impetus for its museums and heritage partners to co-create solutions that take a long-term view on capability development and experimentation on top of addressing immediate needs. To date, DigiMuse has supported more than 40 pilot and prototype projects in new and emerging technologies as well as in the field of digital innovation. It continues to push boundaries as it ventures into new areas of online

and offline virtual and hybrid experiences, and engages in meaningful exchanges with both local and international partners to leverage frontier technologies in developing new solutions for the industry.

In addition, a growing innovation ecosystem among local arts and cultural institutions is noticeable, comprising NHB's DigiMuse programme, National Gallery Singapore's Co:Lab X initiative, the Y-Lab technology incubator launched in 2020, and the National Arts Council's Arts x Tech Lab launched in 2021. Working in tandem to drive the innovation agenda, these represent a next step for the Singapore arts and culture sector in its digital maturity and digital transformation journey as it seeks to actively tackle and address opportunities and challenges brought about by new and emerging advances in technology such as the application of Non-Fungible Tokens (NFTs) for the art market, the development of Artificial Intelligence (AI) solutions in areas such as robotics, as well as generative design as a potential disruptor to art-making, presentation, distribution, and delivery.

The IFACCA report concludes with a view that in their emergence from the challenges of digital transformation, public agencies in the arts and culture sector could stand at the forefront to lead other sectors in innovation and creativity

(IFACCA, p 35). This certainly concurs with what we see within the Singapore arts and culture sector. What is crucial in the journey towards success is how the entire sector may be uplifted from these efforts. To support this broader sectoral transformation, we need a combination of direct effort from the agencies to push the innovation agenda, as well as funding support through the National Arts Council's grants for the industry such as the Organisation Transformation Grant for the Arts launched in June 2021 that looks beyond one-off projects and seeks instead to build core capabilities and collaboration within the sector (National Arts Council 2021).

The digital revolution has created industries and sectors that are more interconnected than ever and needs to be viewed as an entire network of partnerships and collaborations to be carefully nurtured and supported. The creative sectors cannot stand alone and need to actively engage with emerging technologies to maintain relevance as well as drive the collective forward in dealing with current and future disruptions. With or without the pandemic, digital disruption was always inevitable. From artistic creation to value-chain optimisation, the arts and culture sector undoubtedly has important choices to make as it seeks to ride the waves of technological developments to forge the way ahead. □

About the Author



Jervais Choo is Programme Director for the DigiMuse project which aims to advance digital innovation within the culture sector. Over the past decade, he has helmed various portfolios at the National Heritage Board, Singapore, where he headed the Festivals and Precinct Development division responsible for placemaking for the Bras Basah-Bugis Arts and Heritage District. He was also formerly Deputy Director for the National Museum of Singapore. Choo currently leads the public sector transformation and innovation design efforts for the National Heritage Board and has a keen interest in bringing together new methods of bridging experience and understanding through contextual layering and digital interventions.

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A Larger Reality

Dr Susie Lingham

Writer, Artist, Educator

In this essay, Dr Susie Lingham delves into interdisciplinary creative methodologies in different parts of the world that exercise reflective mediation amid and post-crisis.

Two of [Oppenheimer's] influences were John Donne and the Hindu scripture "Bhagavad-Gita." Oppenheimer recalled both during the Trinity test. [...] Most notably, upon seeing the Trinity detonation, Oppenheimer was said to have recalled the line, "Now I am become Death, the destroyer of worlds." (Templeton 2021)

What is the role and scope of the arts and creative practice in any society, particularly in times of conflict, of whatever ilk? The arts—nice to have, but not necessary? When the pandemic hit in 2020, the arts—poetry, music, film, stories, creative work, and "maker" culture as a whole—contrary to the pragmatic "common sense" that immediately categorised it as "non-essential" work, is what sustained a sense of relative well-being in lockdown. In the long view, it is undeniable that wars have been fought to regain or preserve artistic and cultural expression and heritage. Paradoxically, the arts and culture have always been part of the arsenal of psychological defence and underpin national identity in particular.

This short essay is a brief reflection on interdisciplinary creative methodologies in different parts of the world that exercise the art of reflective mediation amid and post-conflict, spanning architecture, agriculture, archival and curatorial work, and poetry—all in the mode of socially engaged creative practice, experience, and expression.

War and poetry: conscience catalyst

Poetry was J. Robert Oppenheimer's ballast in the storms of atom bomb-building and the apparent inescapable responsibilities of war for the "greater good". It is unnerving to realise that the code name *Trinity*, for the first detonation of a nuclear weapon, was inspired by John Donne's poem "Batter my heart, three person'd God", a poem of subjugation and surrender to divine forces larger than the poet's own will. Oppenheimer also identified with Arjuna, the conflicted prince character in the Indian epic, who, wrestling with the inevitability of war, took counsel with his charioteer Krishna, an avatar of the god Vishnu. The divine advice complicates any notion of what constitutes responsible or ethical action and was an ironic rebuke on the hubris of thinking any mere individual has agency against complex forces, or *take the blame even*, for being the singular cause of any particular chain of effects.

Still, even as the ideal of free will has been increasingly questioned in recent scientific research, this iconic literary moment must give us pause for thought—while perhaps not being able to make the claim of being the cause per se, art can be, and is the catalyst of causes and pauses. In the military coup and assault on civilians in Myanmar this year, it was the poets who used their words in resistance against the junta's harsh measures at the cost of their own lives, like the poet Khet Thi, tragically killed by the junta. "There is so much crime against humanity [in Myanmar]. Poets in such situations live with tears in every single breath", one poet, who asked to be anonymous for security reasons, told Agence France Presse. "Our poems are hordes of screaming children." Still grieving, their voices are being heard

around the world, as Ko Ko Thett, a poet based in the UK, works to translate these Myanmar poets' verses (Martin 2021). As Ursula Le Guin said:

Any human power can be resisted and changed by human beings. Resistance and change often begin in art. Very often in [...] the art of words (Le Guin 2014).

War, given the contradictions of human nature, may be inevitable, even obligatory—until *all* knowledge, stories and cultural heritage become a matter of humanity's *shared legacies*, and not merely an expression of territorial, geopolitical, national, or ethnic contesting identities, or a demonstration of power and superiority over any Other. Notably, in the aftermath of the theatre of war, there is an equally irrepressible catalytic force to rebuild in the name of peace.

War and architecture: urban park peace- building

Culture is often perceived to be the antithesis of war and destruction, everything good and valuable, to be protected from the ravages of war. And yet, culture has been the cause of wars—ironically, like most aspects of power, culture is the proverbial pharmakon. The clash of cultures has resulted in incalculable loss and devastation of lives and cultures across millennia of human experience. There are forces much larger than the intentions of individuals, or individual nations, or allied—often contingently—nations. The power of art—its twin realities of beauty, and truth, not necessarily in tandem—has always been yoked to the projections of power and wealth. As I observed elsewhere, "...the beautiful work of art

has been used variously as ruse, muse and midwife for political intention and power throughout history, and a proxy for abstract relations of power that have real-life influence on the individual and society at large" (Lingham 2021).

Architecture has indeed been an instance of the often loud projections of power and "civilization" par excellence, and not always benign in its presence and intentions. It is a specific twist that the Scottish architect Frazer Macdonald Hay focuses on—to literally transform buildings built for, or appropriated to the use of, or destroyed by war, into what he calls "ex-combatants", or peace buildings. An ex-Royal Air Force search and rescue worker in his youth, Hay was Director of Glasgow School of Art, Singapore (2013-2015), and is now founder of Uniform November, a consultancy focusing on place and peacebuilding.

Hay most recently worked on an urban park design in West Mosul, Iraq, in the Al-Jamhoria area of the city, a collaboration between The Halo Trust, United Nations Mine Action Service, and humanitarian organisation Al-Ghad. Between 2013-2017, ISIS seized Mosul, and the park, one of its oldest and most significant, had been used by ISIS to "store weapons, bombs and improvised explosive devices, 'which spread panic, fear and anxiety in the hearts of the people'" (Hay 2021). Insightfully, Hay states:

...it is important to develop the park as an acknowledgement of the past violence without venturing down the path of memorialisation thus provoking antagonistic narratives of the victim and perpetrator. This park should be about resilience and trust-building and social cohesion whilst acknowledging its ruin and past use. By using as much of its original materials and layering the new and old construction giving the park an easily

read narrative of past social positives before violence, destruction during the conflict, and a recovery built on the idea that in using the past, communities can create an even stronger, more peaceful future (Hay 2021, 9).

On 15 April 2021, Ramu Damodaran, Chief, United Nations Academic Impact initiative and Deputy Director for Partnership and Public Engagement in the United Nations, mentioned Hay's project at the conference *Why We Care?*:

The United Nations hosted a powerful virtual exhibit [...] which, among other locations, portrayed demining efforts in Iraq which hosts a project financed by the United Nations Mine Action Service where Frazer Macdonald Hay has designed 'Al Jamhorya Park' in response to HALO's progressive 'Explosive Hazard Risk Mitigation and Education' initiative in the region and the valuable research done in the community by HALO and Al Ghad. The layout of the park has been informed by the surrounding built environment, with an emphasis on re-use, shade, light, access, and interaction. The park will layer the site's past so that new and old can be read, thus offering recognition and acknowledging the past and present social challenges whilst embracing an engaging narrative of reconciliation and growth.

The link Frazer makes between demining and education was vividly captured almost a quarter of a century ago by the "Schools De-Mining Schools" project, sponsored in part by the United Nations. "When I tell people that schoolyards are mined, their reaction is 'Why? That's stupid.' But you want to intimidate and control the population," said Abouali Farmanfarmanian, the then coordinator of the CyberSchoolbus, a United Nations educational programme (and a cherished friend.) "It's basically a weapon of terror," he said (Damodaran 2021).

Not without challenges—on several fronts—before, during and post construction, the West Mosul Park project is a catalytic, yet sensitive, emotionally managed architectural work, and not merely utilitarian. Acknowledgment of lived experiences, negative and positive, allows the larger realities of complex socio-cultural dimensions of specific communities, in particular traumatised war-torn communities, to renew and evolve. Importantly, this is also landscape conservation architecture at work, and nature has been increasingly recognised as being at the heart of our sense of place in the world. This redesigned and rebuilt park becomes the iconic site for both remembering and healing of rifts, providing safe ground outdoors that “offers a sense of belonging, identity and social reassurance.” (Hay 2021, 9)



Figure 1. Visual tryptic representing the park's pre-conflict, post-conflict, and peacebuilding character.
Image courtesy of Frazer Macdonald Hay.

Socially engaged art and environmental stewardship: *sugar vs the reef?*

[A]cknowledging that human interactions of all kinds are an integral part of the work: [t]his is central to the methodology of the practice. Trust is built through slowly evolving conversations (Ihle 2022, 149).

Contemporary art is unique because it has the flexibility to adopt methodologies outside its own “assigned” scope, and mediates between different disciplines and communities. This new power of art is gaining momentum in our time, as exemplified by Australian artist Lucas Ihle, who “works at the intersection of socially engaged art, agriculture, and environmental stewardship. Through long-term projects embedded in communities, he activates hidden networks of association between things and people to reveal histories of inattention to place.” (Ihle 2022, 147)

Climate change is certainly a huge issue that cannot be ignored: its consequences are undeniable. There is a sense of “war” between climate activists, climate change deniers, and larger organisations who stand to lose much with change that is not on their terms. Critically, farming is a big part of the complexity as it escalates. There is nothing so vital as food production. A multi-layered project with extensions, *Sugar vs the Reef?*, created in collaboration with fellow artist Kim Williams, began with an invitation from retired farmer and member of the Local Marine

Advisory Committee of the Great Barrier Reef Marine Park Authority, John Sweet. Having heard of Ihle’s earlier work on regenerative agriculture and water management as a form of land art (Ihle and Milliss, 2011–2014), Sweet proposed “an artist-farmer collaboration exploring the relationship between sugar cane farming and the plight of the Great Barrier Reef” (Ihle 2022, 148). This started officially, after initial conversations in 2014, in August 2016 in Mackay, one of Queensland’s “sugar cities”, a considerable distance from where Ihle lives and works in Wollongong. It involved learning about the coastal sugar cane industry from the mid-1800s in the context of psychologically entangled Aboriginal and colonial histories, building connections between farmers and Indigenous communities, and “curating” a context to usher in the idea of regenerative soil stewardship instead of aggressive, chemically-driven high yields that ultimately have negative impact on the soil and the health of the Great Barrier Reef through pollutants. The project was extended as a “demonstration farm”—“where experimental agricultural systems are showcased for the public and other farmers” (Ihle 2022, 154)—at *The Watershed Land Art Project* in Mackay Regional Botanic Garden, and in an exhibition on the collaborative experience in Artspace Mackay, a major contemporary art gallery.

The word “war” is certainly charged, and continues to power polarised positioning in climate change issues, and is an inevitable trigger for reactive activism. Emotions run high when people *care* about things, and cannot bear indefinitely the often futile efforts to effect urgent change, especially when in conversation with the powers that be. Seeing the other side as enemy becomes a default. Coming from their social engagement, literally on the ground, Ihle and Williams, as

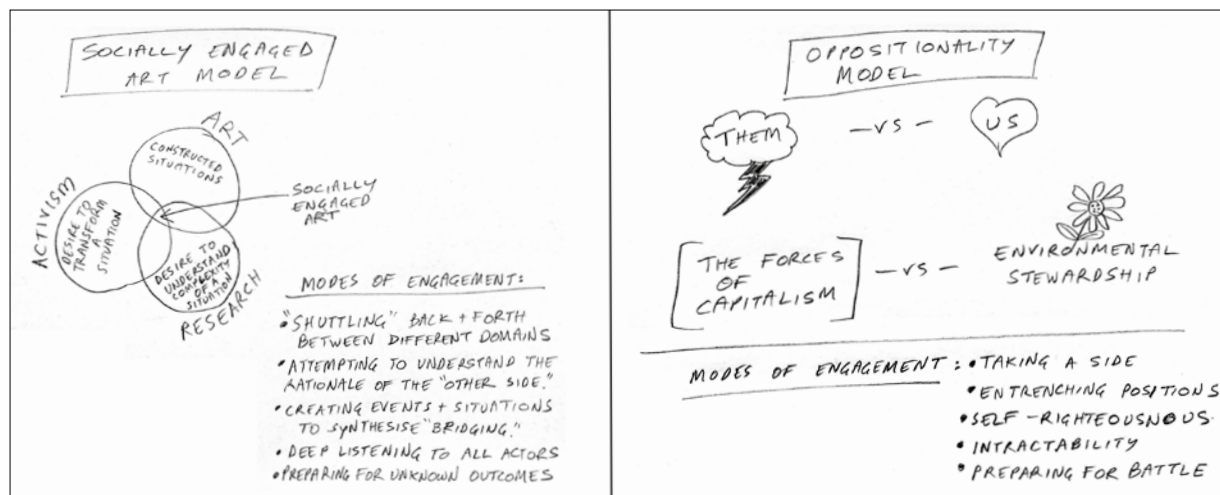
mediating artists, seek other modes that do not deepen the rift between “opposing sides”: coastal sugar cane farmers versus the activists who want to protect the Great Barrier Reef at all costs. On this sense of being “embattled”, Ihlein states, in an email conversation with me:

I am against the idea of militarisation. So, the idea of a war on climate change is not in my toolbox. In the work that we did with the sugar cane farmers, the process is much more slow and respectful. We even sat down with the right wing climate change denying member of parliament—something that the local activist conservation group could not do, because they had already burned their bridges with him—in other words, because they saw him as the enemy in a war. What does this oppositionality achieve?

Subscribing to “the philosophy of ennobling the relationship between all concerned, both people and place” (Williams and Ihlein 2019, 345–46), Ihlein and his fellow artist collaborator Kim Williams work with what they call “lively

objects”, because “they are living systems where things literally grow, die, and decompose. They are also socially lively—deeply implicated in the struggles, desires, and histories of communities. Working across contexts such as farms, galleries, and botanic gardens requires the artists to engage a certain kind of care for objects, people, and situations, which can be seen as curatorial” (Ihlein 2022, 147). Long-term and painstaking practice-led research projects like this require well-deserved funding, and faith.

It is never easy to maintain cool diplomacy in the heat of situations when dealing with a sense of *responsibility* to overturn serious injustice, ignorance, or bigotry. Powerlessness must also be understood—the experience has deep roots, and as part of a natural process, can erupt irreparably. Also, there are different moments along the arc of redress which might call for different modes. Understanding the *process*, as Ihlein emphasises, is key. Where is the art and artist in this process we may well ask, as mediator between opposing sides? Precisely in the *ambiguity* of the hydra-headed role, in its *fluidity*.



Figures 2 and 3. Hand-drawn diagrams by Lucas Ihlein, illustrating socially engaged art model and oppositionality model. Images courtesy of Lucas Ihlein.

Ironically, using the Trojan Horse—that poetic and legendary war weapon disguised as gift—as metaphor and methodology, Ihlein describes how at critical points he and Williams curated socially-engaged cultural phenomenon, an instance centred around the blossoming of sunflowers amid sugar cane in a farmer’s field as soil-regenerative practice—taking the already popular flower show to literally the next stage, the artists created an amphitheatre in the fields, invited a local youth orchestra and South Sea Islander group performances, and catered gourmet food for all. It coalesced into a meaningful time for the diverse group of people purposefully brought together. That event was the aesthetic and memorable *Sunset Symphony in the Sunflowers* (Ihlein 2022, 153).

Curatorial mode: mediating archives and unwritten histories

As a final and brief instantiation of working with larger realities beyond the pragmatic immediate, it is timely to consider the concept of curatorial work in relation to the actual etymology of the term—to care for, to attend to, to conserve—modes vital to the intangible realities of memory and experience. Exemplary is the work of John Tung, ex-SAM curator (2015–2020) and now working independently. For the Singapore Biennale 2019, he brought *Centro Audiovisual Max Stahl Timor-Leste (CAMSTL)* to the public, a seven-channel installation of archival materials around a pivotal moment in the history of Timor-Leste, Southeast Asia’s youngest nation-state: at the Santa Cruz Cemetery in Dili, where after 17

years of Indonesian occupation, 250 peaceful pro-independence demonstrators lost their lives in violent clashes. The filmic archive is the work of British journalist and war correspondent, Max Stahl aka Christopher Wenner, who was ground-witness to the Timorese experience for over 30 years. It encompasses not only the “violence, confrontations, human rights violations and bloodshed, the work also touches on a vast range of subjects including Timorese music, dance, crafts, food and social practice” (Tung 2019, 93).

As Tung states, the material “underscores the filmic medium’s potential to redress injustice and effect significant global change”, and highlights “the importance and currency of archival work as a means of preserving memory, culture and heritage in times of oppression and struggle” (Tung 2019, 93). Archival resources allow for deep research into silent and silenced histories, and curatorial work is critical in presenting and representing interpretations and perspectives.

Recently opened in September 2021, Tung curated an exhibition on 5th Passage, a Singapore artist initiative with its beginnings in 1991. Once again, Tung worked with archival material that has yet to be properly contextualised due to a history of omission and silence. Through numerous interviews, attentive listening to the “dropped clues”, and feeling out “allusions” in conversations that resurrected often traumatic memories, Tung began to jigsaw splintered narratives and memories into a cohesive context, as well as curate the exhibition 5th Passage: *In Search of Lost Time*, featuring 10 associated artists at Gajah Gallery, Singapore, with a published catalogue—optimistically entitled 5th Passage: *Time Regained*.

The project examines the social significance of the broad and “ground-breaking” scope of work

that 5th Passage was doing in the early 1990s in Singapore, at a time when the National Arts Council was only just coming into being, and there was little on the ground that identified and harnessed creative and social concerns cohesively. Tung says, “The artists’ product done with 5th Passage had already exceeded what legislators and policy makers could envision, let alone regulate”. The pre-emptive strike against these pioneering artists was aggressive and excessive: Goliath bashed David into smithereens, in this instance. The punitive measures that continued killed the initiative’s artistic and creative movement in its tracks, and “subsequent policies served to curtail growth along the interdisciplinary developmental path 5th Passage took”—way ahead of its time in the Singapore context—of art being socially engaged in issues from the environment to animal ethics, special education, and more. Thirty years ago, natural cultural expressions should have been given the room to grow from the ground up—initiatives should not only take the form of top-down directives. Too much precious individual and collective work and time, lost.

Conclusion

Hard times are coming, when we’ll be wanting the voices of writers who can see alternatives to how we live now, can see through our fear-stricken society and its obsessive technologies to other ways of being, and even imagine real grounds for hope. We’ll need writers who can remember freedom—poets, visionaries—realists of a larger reality (Le Guin 2014).

A real figure of real terror in life, nearly 800 years after his death, Genghis Khan is re-visioned in a monumental sculpture, erected in 2008 in Mongolia, 54 kilometres from Ulaanbaatar—cultural memory cast in 250 tonnes of stainless steel, 40 metres high. Ironically, even brutal global military conquests can be a source of pride to the people who claim shares in belonging and birthplace.



Figure 4. Timeline in the exhibition *5th Passage: In Search of Lost Time*, September 2021. Image courtesy of Gajah Gallery.

War, culture, and history are realities shaped by perspectives, and given enough time, set perspectives are interrogated by other perspectives. Values, ideals, beliefs, and tastes, shift. Many forces sculpt history and whittle memory. There is power and influence in engaged arts practice—the figure of the thinking and feeling creative practitioner stands amid flows

of power, and remains critically individual, catalytic, riding on larger momentums. Le Guin's reference to "realists of a larger reality" extends to all artists and creative practitioners. The psychological and emotional dimensions of human experience need attention and time, mediated through a larger reality. □

About the Author

Dr Susie Lingham is an interdisciplinary thinker, writer, artist, educator, and curator. With a focus on the nature of mind, her work synthesises ideas across different fields from the humanities to the sciences. From 2013-2016, Susie was Director of the Singapore Art Museum where she shaped its vision/mission, curatorial direction, and acquisition strategy, and oversaw the development, organisation and curating of 13 exhibitions. She was appointed creative director of the Singapore Biennale 2016, *An Atlas of Mirrors*. Prior to these appointments, Susie was Assistant Professor at the National Institute of Education/Nanyang Technological University, Singapore (2009-2013). Conferred the Distinguished Alumni Medal 2014 by Nanyang Academy of Fine Arts, Susie has a DPhil in Literature, Religion and Philosophy (University of Sussex, U.K.), and has taught at universities and art colleges in Australia, Singapore and the U.K. Currently, she is Senior Lecturer at the School of Technology for the Arts, Republic Polytechnic, Singapore.

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Re-imagining the National Museum of Singapore's Role in a Post- pandemic World

Chung May Khuen

Director
National Museum of Singapore

The COVID-19 pandemic presented an unusual challenge to Singapore's oldest museum—for the first time in its history, it had to shutter its doors due to a global health crisis. While the museum had already been making forages into the digital realm prior, the crisis propelled its team to embrace the medium and leverage it to expand its offerings and increase its audience outreach. In this essay, the director shares the museum's journey in pivoting to the digital.

The National Museum marked its 134th birthday in October 2021. As the oldest museum in Singapore, it has weathered several difficult situations over the last century. We remained opened throughout the Japanese Occupation (1942-1945) and came out of World War Two unscathed except for a few shell hits. In 1972, we forged a new identity in telling the story of nation-building after we transferred one of our most prized collections—the natural history collection—to the National Museum of Malaysia and the University of Singapore (present-day National University of Singapore). In 2003, we closed the museum, moved into an inaccessible shopping mall and risked being forgotten by our audiences when we embarked on a three-year major re-development project. This article looks at how a global health crisis, in this case, the COVID-19 pandemic, has affected the museum since 2020, and how we have been steering a new and sustainable course for ourselves as we continue to fight the pandemic.

Circuit Breaker and the initial crisis

The global COVID-19 pandemic has been described as the defining crisis of a generation in Singapore. It has deeply impacted all aspects of our lives over the last two years. In recent months, we have been told by Singapore's multi-ministry task force tackling the pandemic that the coronavirus was never going to go away and Singapore must learn to live with it as it becomes an endemic.

When Singapore underwent the Circuit Breaker, a period of enhanced safety measures to reduce transmission of COVID-19 from April to May in 2020, the museum had to close its doors, like most of the other “non-essential” services. This is rather unusual in the history of the museum. Except for a few closures due to major renovations to the galleries and the building over the last few decades, the museum had always remained open, even during the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2003.

The first two months of the museum's closure during Circuit Breaker was challenging. I had just taken over the role as the director at the end of 2019, when the museum had just welcomed a new record number of a million visitors. Today, even though we are open, we continue to operate at a limited capacity and are constantly tweaking our offerings, toggling between onsite and online programmes because of the changing safe management measures. The majority of our visitors are Singaporeans and residents in Singapore as international travel has not resumed.



Figure 1. A deserted museum on the eve of the Circuit Breaker, April 2020.
Image courtesy of National Museum of Singapore.

During Circuit Breaker, except for a handful of estate staff who had to be on site to maintain the building, the rest of us worked from home. As we struggled with the unfamiliarity of holding virtual meetings, many of us also took the opportunity to keep ourselves abreast of how the role and fate of museums were changing around the world in these challenging times by attending webinars and podcasts. I recall experiencing an initial fear of running an empty museum of dusty galleries because of the prolonged lockdown. But this anxiety was soon replaced by a preoccupation with how we could engage our visitors digitally.

Pivoting to digital

The museum pivoted towards the digital very early on although it was unplanned. Our first online virtual offering was that of our special exhibition commemorating Singapore's

bicentennial, *An Old New World: From the East Indies to the Founding of Singapore 1600-1819*, which had just ended its run at the museum in March 2020. Conceived before the onset of the pandemic, the digital experience included a 360 degrees virtual tour of the exhibition along with special curator-led tours. Within a month of its launch, it had clocked 20,000 online viewers.

In the absence of physical visitors who traditionally have been the management's most important performance indicator before the lockdown, reaching out to a digital audience has now become our focus. Encouraged by the huge appetite for online content during Circuit Breaker, the team comprising curators, programmers, exhibitions and collections managers, and marketing managers came together and began to put up a calendar of digital programmes that cater to different groups of audience. Except for one staff who looks after digital content on our social media, the rest of the team had neither prior experience nor the technical expertise.

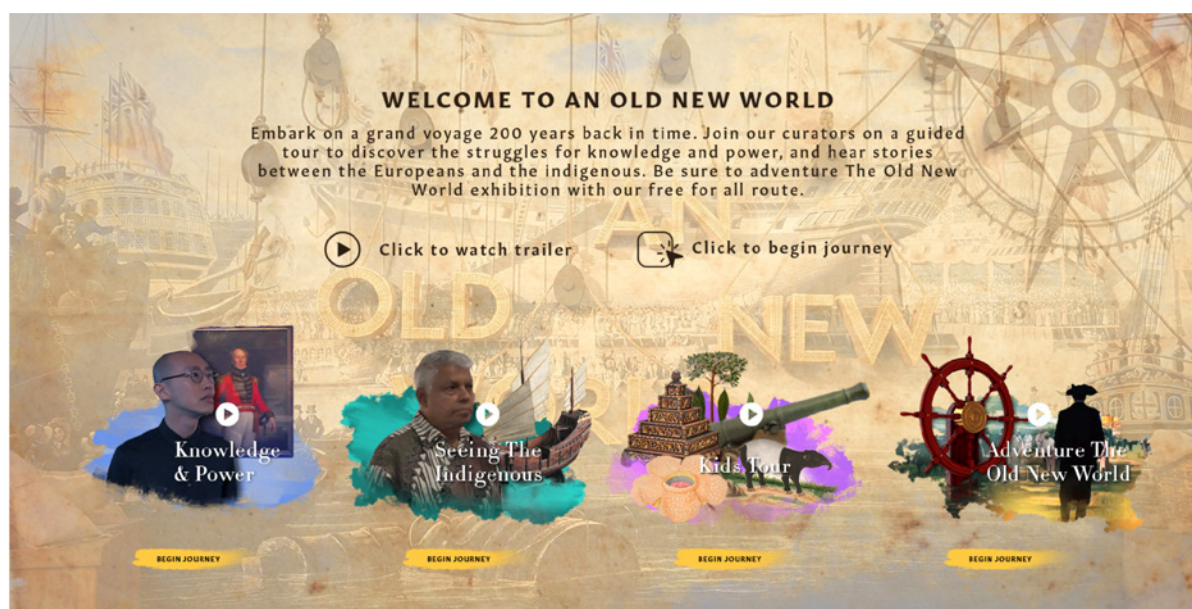


Figure 2. Home page of *An Old New World: Digital Edition*—a 360-degree digital showcase of our bicentennial exhibition physical offering, April 2020. Image courtesy of National Museum of Singapore.

Changing expectations of our digital audience

Very soon, the team began to realise that people were not only suffering from digital fatigue but also had new expectations of the programmes offered online. For example, one of the most common requests from our audience is to make our events more interactive. As such, after the initial months of pre-recorded events, the team started to experiment with live-streaming and incorporated an interactive segment which allowed participants to ask the host questions and had them responding during the event.

In most instances, online programmes have provided us with the ability to reach out to a wider audience in terms of quantity regardless

of geographical locations. But in some cases, we deliberately capped the number of participants in the programme. For example, our programmes for seniors with dementia had only eight participants each time. The size of the event allowed our volunteers to engage each senior individually in conversation and helped spark their memories as they were brought on a gallery tour via Zoom. In some instances, robots were also used to facilitate such virtual tours.

Since the start of the pandemic, the rapid pivot towards digital has certainly allowed us to stay engaged with our audiences from home. However, we are also aware that we need to be nimble and creative in packaging our programmes, depending on who the audience is. As we had learnt over the last two years, there is “no one size fits all” programme. The team also recognises that hybrid programmes are here to stay and that they will have to manage both digital and on-site programmes.



Figure 3. During the Singapore Heritage Festival in 2021, we organised a livestream of a cooking demonstration where audiences at home could “chat” with Chef Bob. Image courtesy of National Museum of Singapore.

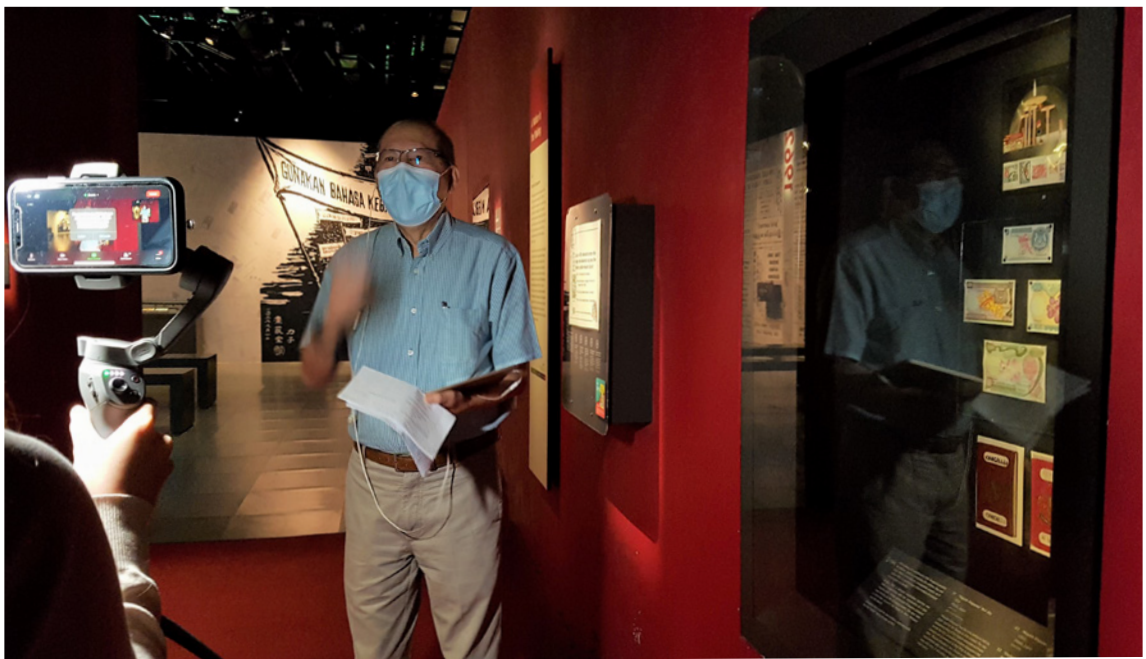


Figure 4. One of our Care Facilitators bringing a group of seniors to the Singapore History gallery at the Museum via Zoom platform. Image courtesy of National Museum of Singapore.



Figure 5. Hybrid offering of the lion dance performance held during Chinese New Year 2021. It attracted 32 visitors on site and another 3,000 online viewers over a week. Image courtesy of National Museum of Singapore.

Hence, it is pertinent that we explore different ways of producing events that require less production time with the same number of staff in the team. We have also started to integrate digital experiences into every aspect of the work we do, something which was quite unthinkable in the past. By doing this, we hope to minimise the disruptions to our work, reduce the mental stress faced by staff whenever there is a change in safety guidelines, and without compromising on the delivery of these experiences to our visitors.

Our new role in society

The disruption caused by the pandemic has served as a catalyst for us to re-think our place in a post-pandemic world, especially in terms of our collecting strategy. In recent years, the museum has seen an increased importance in collecting stories, images, and objects of significant contemporary events as they unfold. For example, in 2003, during the outbreak of SARS, the museum sent five photographers to document the outbreak at Tan Tock Seng Hospital, then the designated hospital in Singapore for the treatment of all suspected and confirmed SARS cases. The photographs were

exhibited at the museum a year later. A catalogue was released as well.

Similarly, during the Circuit Breaker, the museum commissioned five local photographers—Bob Lee, Brian Teo, Edwin Koo, How Hwee Young, and Zakaria Zainal—and two filmmakers—Adar Ng and Dave Lim—to document the range of experiences of everyday life during this period. In addition, we also launched a concerted effort to collect stories and objects related to the pandemic in May 2020 with an open call. This comprehensive rapid response to collect for an important current event is unprecedented for the museum. This is following the valuable lesson we learnt from collecting for SARS several years ago, where collecting objects occurred only a few years after the outbreak, with very little success. The almost immediate response to collecting for COVID-19 serves as a reminder to us that while the collecting of historical objects relevant to Singapore history is important to our role as the National Museum of Singapore, it is also equally important to collect the contemporary. This marked the start of the museum's new initiative that has come to be known as *Collecting Contemporary Singapore*.



Figure 6. A thermometer and a notebook used to record temperature readings during the SARS period. These were collected by the museum five years after the outbreak. Image courtesy of National Museum of Singapore.



Figure 7. A display of objects related to COVID-19 pandemic contributed by the public at the *Picturing the Pandemic* exhibition. Image courtesy of National Museum of Singapore.



Figure 8. The museum also asked for staff to contribute objects which they felt would be important to collecting the COVID-19. This display served as a conversation corner for our visitors. Image courtesy of National Museum of Singapore.

At the end of February 2021, the museum opened the *Picturing the Pandemic: A Visual Record of COVID-19 in Singapore* exhibition, to put forward our message to the public that we are collecting contemporary memories. The exhibition showcases what life was like during and immediately after the Circuit Breaker, and includes the photographs and films we have commissioned, as well as the objects we have collected as part of the open call launched in May 2020.

The exhibition, which was not planned for, was put up in four months by the entire curatorial team. Driven by the poignant and meaningful collection of stories, artefacts, and images we had amassed by October 2020, the museum realised that we could play a part in the fight against the pandemic by putting up an exhibition that shows our appreciation for the bravery, selflessness, and dedication of our frontline workers, as well as remind ourselves that we could and would overcome the pandemic if we remain determined and resilient together.



Figure 9. The first section of the *Picturing the Pandemic* exhibition looks at the life of a nurse, a child, and a para-athlete during Circuit Breaker. Image courtesy of National Museum of Singapore.



Figure 10 and 11. Visitors were encouraged to visit our permanent galleries to learn more about the gadgets of the past and compare them to Doraemon's gadgets (left); Visitors taking images with Doraemon at the outdoor installation (right). Images courtesy of National Museum of Singapore.

It was also during the same time that the museum began to assert its new identity as a social space that offers solace and uplifting experiences that connect visitors to their roots and to one another. From 31 October to 27 December 2020, we took a calculated risk and launched an installation campaign called *Doraemon: Time Travelling Adventures* in Singapore while we were in Phase 2, a period of heightened alert, of the pandemic.

The campaign was based on the popular classic Japanese manga character Doraemon, who is a well-loved character with Singaporeans from the 1980s to 1990s. Both online and onsite visitors were encouraged to explore the stories of Singapore through our permanent galleries and collections with Doraemon. Originally slated to

open during the school holidays in May 2020, we decided to postpone and reduce the number of physical installations instead of cancelling the campaign. At the same time, we scaled up the digital content with trails and activities. The campaign, to our surprise, saw an increase of 82% in visitorship as compared to the same period in 2019. While we attribute the huge numbers largely to the fact that Singaporeans and residents in Singapore were still unable to travel, we were also encouraged that there were 32.2% more first-time visitors than before. It made us realise that the campaign's approach of telling stories about Singapore's history and artefacts in a fun and accessible way had helped us attract new first-time visitors.



Figure 12. As part of National Day Celebrations 2021, the museum curated a special façade light up of the building which ran from 7pm to 12am midnight throughout August. The installation was one of the many ways in which we hope to bring cheer to our visitors during this difficult time. We also invited Singaporean artist Francis Ng to install his artwork *Was I Here?*, based on a threefold social movement which invites people to examine the ideas of presence, identity, and place, with the hope for the healing and joy that art can bring to society. Image courtesy of National Museum of Singapore.

Conclusion

These past two years have been unpredictable and even difficult for us at the museum. However, the period has also given us the opportunity to rethink our role and relevance in a new normal on several fronts. The lack of physical audiences due to the ever-changing safe management measures made us pivot from initially presenting only digital programmes, to having hybrid offerings at the museum now. In the long run, we hope to continue to explore creative ways of delivering our content both online and onsite and see them complementing each other rather than existing as just a stand-alone or ad-hoc experience. To do that, the museum hopes to establish our first digital framework and strategy by 2022 that will guide all aspects of the work we do. In addition, we will continue to up-skill ourselves and work with the

right partners to present our stories and collections in immersive, interactive, and fun ways.

Earlier, I had mentioned the fear of the demise of a physical museum because of the impact of the pandemic. But we have demonstrated how we can overcome this by sharpening our relevance in society. The positive response we have received from the public in collecting for COVID-19, the *Picturing the Pandemic* exhibition, and the Doraemon installation campaign are just some examples which remind us that the museum can have a sustainable role in society by extending its traditional role to a social one that brings people together and inspires hope in the most extreme times. As the oldest museum in Singapore, we have constantly adapted with the changing times. Today, these same characteristics—unwavering resolve and ability to evolve—have helped us in our fight against the pandemic, and chart new territories for the museum. □

About the Author



Chung May Khuen is Director of the National Museum of Singapore (NMS). She began her career as an Assistant Curator at the Asian Civilisations Museum in 1997 before joining NMS in 2003. Through her career, she has led the curation of notable exhibitions such as *In the Mood for Cheongsam* (2012) and *White Wedding Dress*, an international exhibition from London's Victoria and Albert Museum, and the revamp of permanent galleries in NMS. She was posted to the Heritage Conservation Centre as Deputy from 2016 to June 2019, before rejoining NMS and being appointed as director later that year. Chung received her MA in History and Culture of Fashion from the London College of Fashion (UK) in 2009, under a full scholarship from the National Heritage Board.

For Wh(Art) it's Worth?

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With the COVID-19 pandemic, the push to adopt digital platforms and technologies in the arts and cultural sector has accelerated. New ways of imagining and producing art and culture have been emerging and they pose thought-provoking questions in many aspects, such as the meaning of the artistic process, the role of artists and craftsmen, and the definition of art. This essay explores some of these new ways of making art and the questions they present.

“The relation between what we see and what we know is never settled. Each evening we see the sun set. We know that the earth is turning away from it. Yet the knowledge, the explanation, never quite fits the sight.”

And so declared art critic, John Berger, in the opening lines of *Ways of Seeing* (Berger 2008), a seminal work which anchors the reading list for foundation classes in contemporary art theory and iconography studies. While Berger only references visual representations in art, the point he is making seems applicable to the entirety of the arts and culture—meaning-making in art is never definitive. Art evokes feelings of awe, curiosity, fear and love; a plethora of multi-dimensional qualities that forms the aesthetic experience. This experience is never the same for everyone and are more than just fanciful bites of thought; they hold and communicate meaningful values by which we potentially chart and understand our existence.

Meaning, therefore, is the central thread of this written exploration of the future of the arts and culture. It will be the overarching theme that runs through this piece, a consideration of the various possibilities of meaning for the arts, culture, and its institutions, amid the momentous changes that we are currently going through.

Re: the present and future of the arts

We speak of the COVID-19 pandemic as being Pandora’s box, and reasonably so. Among many other things, it unleashed a farrago of uncertainties and disruptions as our everyday lives were forcibly brought to a standstill. We could no longer do things the way we previously did—a universality that affects the art community as well. Galleries were closed, exhibitions were halted, craft production was disrupted, to name a few. We had a series of chained upsets amid the overwhelming sense of gloom that loomed over the future. But much like how hope revealed itself to Pandora, the pandemic too revealed that not all is lost, and that hope can come in many forms. It is these adaptive developments that I wish to draw our attention to, and their implications for meaning-making at large.

Limitations have birthed new imaginations of art and culture—various performance arts such as opera and ballet have shifted to virtual spaces (Tatler Hong Kong 2021), while traditional in-person crafts such as filming and acting adapted to the restrictions imposed. The UK soap drama *Eastenders*, for instance, has actors using their real-life partners and family as body doubles so filming can continue without breaking social distancing regulations (BBC News 2020). This digitisation phenomenon has opened spaces for cultural activities—museum, heritage, and gallery tours have gone online, and with a few clicks of the mouse, one can easily enter and view places that are closed in real life. But this is not limited to museums and galleries; YouTube’s “Virtual Reality” Channel offers full 360-degree views of historical places and heritage sites (YouTube

n.d.), while Google Arts & Culture (Google Arts & Culture n.d.) has over 500 virtual tours of art and cultural destinations that would satisfy the appetites of even the most hardcore tourists.

Craft has found itself including and recognising new forms of expression. From the social commentary public artworks of STIK, one of the many street artists who have been spearheading the production of art in public spaces (Christie's 2020) in a time where closed spaces are out-of-bounds, to the digital art by Mike Winkelmann, also known by his alias, Beeple (Goodwin 2021), which employs Non-Fungible Tokens (NFTs)¹ as a medium of value.

I will not belabour the point—new ways of imagining the arts have emerged. This is intertwined with technology, which is beginning to play a complementary or primary role in manifesting art, culture, and craft. It is a phenomenon that has and will continue to unfold now and after this period of uncertainty. Questions regarding a post-pandemic arts and culture scene are straightforwardly important. We want to know what these changes might look like and how we can best prepare for them if need be. I offer not so much answers as questions for us to contemplate. Within the limits of this essay, I seek to address the question about the value of arts and culture and its implication for institutions.

The questions we ask ourselves

A salient example of new art forms is digital art, which has been gaining recognition over the past few years. Digital art is not a controversial notion per se; it is exactly the kind of innovation that we would naturally expect to arise with

the prevalence of technological involvement in traditional craft. However, with the rise of Artificial Intelligence (AI) artists such as AI Creative Adversarial Network (AICAN) (AICAN 2021), who recently held a solo gallery exhibit, and AI-generated art such as the Portrait of Edmond de Belamy, sold by Christie's for US\$432,500 (Christie's 2018), critical questions must be raised about the nature of art itself. To what extent does the nature of the creator of an artwork determine whether it is art? When we talk about artists and cultural institutions, we conventionally think of expressions of art or craft that are uniquely produced by human beings. Although there may be other types and forms of such activity, like those done by animals, we largely think of art as a human-centric activity, at least within the confines of this frame of reference and discussion. What is interesting about these new developments is that it pushes us to think about this paradigm—are we prepared to let go of this uniqueness that for the most part has been taken for granted? And in doing or not doing so, in what ways does it change the meaning-making experiences afforded to us via art?

By now, astute readers may think “well let's just include AI artists as sentient beings together with us—let's give them personhood and include them as humans”. Tempting that may be, it does not sound satisfying given that our current notions of the relationship between art and ourselves are being challenged as they are. For instance, how would this inclusive attitude pan out in the immediate and long run for stakeholders? Traditional artists and the nature of craft would be affected by this inclusion. Too much spotlight and hype have been focused on human artists who can and have collaborated with technology and AIs, but what about artists and craft that are not readily translatable or compatible with these developments?

As technology develops, more types of AI-based art will emerge in the market such as AI-generated, or AI-assisted art. A possible issue that may arise is the dilemma of inclusion and exclusion when dealing with such forms of art. If we exclude them, it will seem to be an unfair penalisation of innovative forms. But including them as art may result in problems of competition with human artists who cannot catch up with the production power of algorithm-generated art, or who are engaged in traditional crafts that do not translate well digitally or with technology. Even the previous leverage of the “original creative human mind” is increasingly challenged, as AI too, demonstrates the ability to produce original compositions. Take for instance Art AI (Art AI n.d.), an AI art gallery which through Generative Adversarial Networks (GANs)² is able to produce original creative works. On what grounds of value then would human artists claim, when the twin domains of quality and originality, which grounds aesthetic value, are challenged by AIs?

By extension, what does this mean for institutions, especially those who are involved in the arts and culture? Would there be a need to have support systems or policies to cope with a paradigm shift that potentially sees the obsolescence of traditional modes of craft and artists who depend on them for their livelihoods? The status of AI art would raise questions for such institutions, and as we have seen, it is not just a simple matter of whether such works can be accepted or not. Institutions that promote, preserve, and protect the arts and culture, are predicated on the premise that this is a uniquely human activity, that it is a celebration of human creativity at its finest. The question of whether we accept AI-generated art then becomes a concern since by accepting it, the idea of human creative excellence becomes compromised. If that is the case, the hard question that this points to

for institutions is—what do they stand for? Is a re-evaluation of their core ideologies, identities, or missions to be considered?

What next?

My sense is most arts and cultural institutions would want to preserve the human element of these activities. There is a romanticism, a hope that is captured in this idea that in and of itself gives us meaning. As Lee Daehyung points out, “The new calling of art will be to ask the crucial question of what will preserve a humanity differentiates human beings from robots—how do we resist being reduced to 0s and 1s” (Daehyung 2020). Daily advancements in technology and information have in many ways been accelerated in the current pandemic. The questions raised throughout this essay not only aim to highlight the changes brought about by technological advancements in the arts and cultural scene. To a larger extent, they are to highlight the sort of structures and support systems which must exist for our arts and culture to thrive, in a changing world where arts and cultural institutions play a more important role than ever. A step forward we should be considering when entering this flurry of movements and advancements is arguably one that is inward-looking and introspective—what sort of meaning and values do we want for ourselves? A robust philosophy of meaning when it comes to the arts and culture will be the compass that directs us through these new developments and uncertainties. □

About the Author



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Notes:

1. NFTs are tokens of digital art that are placed on digital ledgers called “blockchains”. NFTs are unique and are purchased because of this uniqueness, which guarantees sole ownership to the work even though it can be copied multiple times. An easy way of understanding this is to think of owning an original file; people can copy it as many times as they want, but the unique status of it being the original and its ownership is still yours.
2. Generative Adversarial Networks (GANs) are a class of AI generator algorithms that utilise two separate neural networks called the “Critic” and the “Generator” respectively. The Critic is given a database of human art styles while the Generator produces art from scratch. The Generator keeps producing while the Critic determines whether generated works are similar to existing human styles or pieces. Over time, the Generator improves to the point where generated art is approved by the Critic as “original art”.

Culture and Crisis— What Lies Ahead?

Sir Geoff Mulgan

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Through history, crises have always proven fertile grounds for the arts, leading to spurts of breakthroughs and creativity. In this essay, policy maker and thinker Sir Geoff Mulgan shares his thoughts on three current slow crises faced by humankind—climate change, powerful new technologies, and social inequality and recognition—and their impact on artists and their roles.

The arts are often helped by crisis. Past wars generated extraordinary poetry, breakthroughs in painting, and radical invention in film. This link between social dislocation and creativity was famously captured in a line from the film *The Third Man*, when its anti-hero Harry Lime remarks that “In Italy for thirty years under the Borgias, they had warfare, terror, murder, bloodshed. They produced Michaelangelo, da Vinci, and the Renaissance. In Switzerland, they had brotherly love, five hundred years of democracy and peace, and what did they produce? The cuckoo clock.”

So, are our current crises producing an explosion of creativity or not? Lockdowns certainly gave millions of artists time to produce: to compose, paint, write, or sculpt without the distraction of performances or exhibitions. An extraordinary range of COVID-inspired art is now available online, as well as art intended to address the mental health challenges of the pandemic. Lockdowns also forced new kinds of creativity—like mass online performances, collaborations on Zoom, and an acceleration of hybrids of face-to-face and online. This is a deeper truth embedded in the digital turn of museums, which once were all about the stories they told but now are increasingly confronted with communities and publics who want to tell us what they know.

But the pandemic also wreaked economic havoc on the arts as buildings closed and income dried up. It closed off the conviviality that is so vital for creativity, and it appears that innovation of many kinds slowed down during the pandemic as the attributes that make cities buzz were put on hold.

Yet the arts are both feeding off and contributing to our ability to cope with the big crises of our times. Here I briefly touch on three of the slow crises that sit alongside the fast crisis of COVID-19: the crisis of climate change; the unfolding challenges and crises prompted by powerful new technologies; and the sometimes fast and sometimes slow crises of inequality and recognition.

Bearing witness: climate change

Climate change is now the most visible big crisis, prompting an extraordinary range of artistic responses. Most try to bear witness to what is happening. Olafur Eliasson’s blocks of ice melting in city squares vividly make people think about climate change as a reality, not an abstraction. A similar effect is achieved by Andri Snær Magnason’s plaque to commemorate a lost glacier in Iceland or the World Meteorological Organization’s short videos presenting fictional weather reports from different countries in the year 2050, *WMO Weather Reports 2050*. Others turn the medium into the message, reusing waste materials to signal the emergence of a more circular economy.

Literature is also grappling with climate change. What one author called “socio-climatic

imaginaries” can be found in novels such as Paolo Bacigalupi’s *The Water Knife* and Kim Stanley Robinson’s *Green Earth* (both from 2015) which go beyond the eco-apocalypse to examine the multiple interactions between nature and social organisation. Kim Stanley Robinson has spoken of science fiction as “a kind of future-scenarios modelling, in which some course of history is pursued as a thought experiment, starting from now and moving some distance off into the future” (Beauchamp 2013) and makes a good case that literature is better placed to do this than anything else. As the warning signs of crisis intensify, we should expect all the arts to respond in creative ways, both warning and bearing witness but also pointing to how we might collectively solve our shared problems.

Investigating complex challenges

The second big crisis—in the sense of being both a threat and opportunity—comes from algorithms and a connected world. Here the role of the arts seems to be more about investigating complex challenges and dilemmas. Many fear that technology will destroy jobs, and corrode our humanity and our ethics. So it is not surprising that we are seeing an extraordinary upsurge of art works both using and playing with the potential of artificial intelligence (AI).

For some artists, AI is primarily interesting as a tool—GPT3 writing fiction; Google Tiltbrush and Daydream in VR; or the growing use of AI by musicians and composers. There are many wonderful examples of emerging art forms, like *Quantum Memories* at the National Gallery of Victoria in Melbourne. But others are trying to

dig deeper to help us make sense of the good and the bad of what lies ahead. Look for example at the work of Soh Yeong Roh and the Nabi Center in South Korea exploring “Neotopias” of all kinds and how data may reinvent or dismantle our humanity. Lu Yang’s brilliant *Delusional Mandala* investigates the brain, imagination, and AI, connecting neuroscience and religious experience to our newfound powers to generate strange avatars.

AI’s capacity to generate increasingly plausible works of visual art and music is of course a direct threat to artists, and perhaps encourages a hostile or at least sceptical response in works like Hito Steyerl’s projects exploring surveillance and robotics like *HellYeahWeFuckDie*; Trevor Paglen playing with mass surveillance and AI; or Sun Yuan and Peng Yu’s *Can’t Help Myself*, on out-of-control robots. Others are more ambiguous. Ian Cheng’s *Emissaries* series imagined a post-apocalyptic world of AI fauna, while Sarah Newman’s work, such as the *Moral Labyrinth*, explores in a physical space how robots might mirror our moral choices, giving a flavour of a future where algorithms guide our behaviours.

Andreas Refsgaard’s work is playful in a similar vein, using the algorithm to assess whether people are trustworthy enough to be allowed to ask questions. Shu Lea Cheang’s work *3x3x6* references the standards for modern prisons with 3x3 square metre cells monitored continuously by six cameras, using this to open up questions about surveillance and sousveillance, and the use of facial recognition technologies to judge sexuality, including in parts of the world where it is illegal to be gay. Kate Crawford’s fascinating project, *Anatomy of an AI System*, on the Amazon Echo (now at MOMA) is another good, didactic example, revealing the material and data flows that lie behind AI.

Each of these brings to the surface the opaque new systems of power and decision-making that surround us and the hugely complex problems of ethical judgement that come with powerful artificial intelligence.

Advocating for change

The third slow burning crisis concerns inequality in all its forms, at a time when power and wealth have been even more concentrated than ever in the hands of a tiny minority. The arts have always played a central role in advocating for greater equality, from the feminist utopias of the 18th century to the revolutionary films and murals of the 20th. They have also, of course, been bound up with wealth and power, dependent on kings and patrons, and today on the super-rich. The world of arts is now inescapably bound up with the many battles underway over gender, race, sexuality, and the responsibilities of institutions—sometimes bearing witness, sometimes investigating but often acting as advocate.

A striking example is the way the Black Lives Matter movement sparked an extraordinary rethink around the world. An interesting recent example is the transformation of the public statue of Robert E. Lee in Richmond, Virginia, now covered with a growing forest of slogans and the names of victims of police violence. Many arts institutions are now being held to account for their treatment of historical memory, their links to slavery (like the Tate Gallery in the UK), and the connections of the arts establishments to the more malign features of contemporary capitalism. A good example is the work of Forensic Architecture challenging the role of the then vice-chair of the Whitney Museum over his company's role in

making tear gas, a rare example of challenging elite power in the art market.

The top end of the arts market is now entwined with the world of fashion and the lives of the ultra-rich—a symptom of, more than a solution for what has gone wrong with the world. High-end art generally favours forms of art that are abstract or ambiguous, pays lip service to equality but avoids anything too specific, and is now playing with new financial devices like NFT to commoditise art as a luxury good.

But a radically different energy is now coming from the bottom up, with a demand for the arts to be more engaged and more accountable. My sense is that this is fast becoming a generational divide, with an older generation reasserting the artists' autonomy and freedom from accountability, and taking for granted a world of patrons and galleries not so different from a few centuries ago, and a younger generation no longer convinced that this is right for our era.

Art can thrive on crisis; it can bear witness, explain, and provoke. Many sense that a period of relative stability may be coming to an end. The first half of the 20th century brought world wars and revolutions from Russia to China. But history then slowed down—in good ways for much of the world. The Cold War froze international affairs, and the period after its end brought far fewer big wars and fewer revolutions, even as parts of the world descended into civil war.

The 21st century by contrast appears set to see history accelerate again, with the looming confrontation between the US and China, the rising pressures of climate instability, and the fragility of a world more dependent on networks and machine intelligence.

That may or may not be good for the arts. Harry Lime's comment on Switzerland does not quite fit today's world, where the countries producing the most successful artists are generally stable and prosperous such as Germany and the US, rather than steeped in crisis and civil war.

But perhaps a little discomfort is good for the arts and may better help artists to help us make sense of the crises around us and to sensitise us to what is not obvious. That may also prompt them to work harder to be part of the solutions rather than part of the problem and to help us to be actors not just observers. □

About the Author



Sir Geoff Mulgan is Professor of Collective Intelligence, Public Policy & Social Innovation at University College London (UCL). He was CEO of Nesta, the UK's innovation foundation, from 2011-2019. From 1997-2004, Geoff had roles in the UK government including as director of the government's Strategy Unit and head of policy in the Prime Minister's office. Before then, he was a pioneer of creative city and creative economy strategies that were widely adopted around the world. He has been a reporter on BBC TV and radio and was the founder/co-founder of many organisations, including Demos, Uprising, the Social Innovation Exchange, and Action for Happiness. He has a PhD in telecommunications and has been visiting professor at LSE and Melbourne University, and senior visiting scholar at Harvard University. Past books include *The Art of Public Strategy*, *Good and Bad Power*, *Big Mind: How Collective Intelligence Can Change Our World*, and *Social Innovation: How Societies Find the Power to Change*. His Twitter handle is @geoffmulgan and website is geoffmulgan.com.

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