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THRIVE Health and Wellbeing in the City We Need – A Folio of Art and Text addresses a broad range of environmental determinants that influence human health and wellbeing in cities across the globe - a sense of physical and spiritual place, a sense of community, air and water quality, fresh food, housing, quality acoustic and visual surroundings, employment, mobility and transportation, access to health care services, natural heritage and green space, security and safety, and urban regeneration.

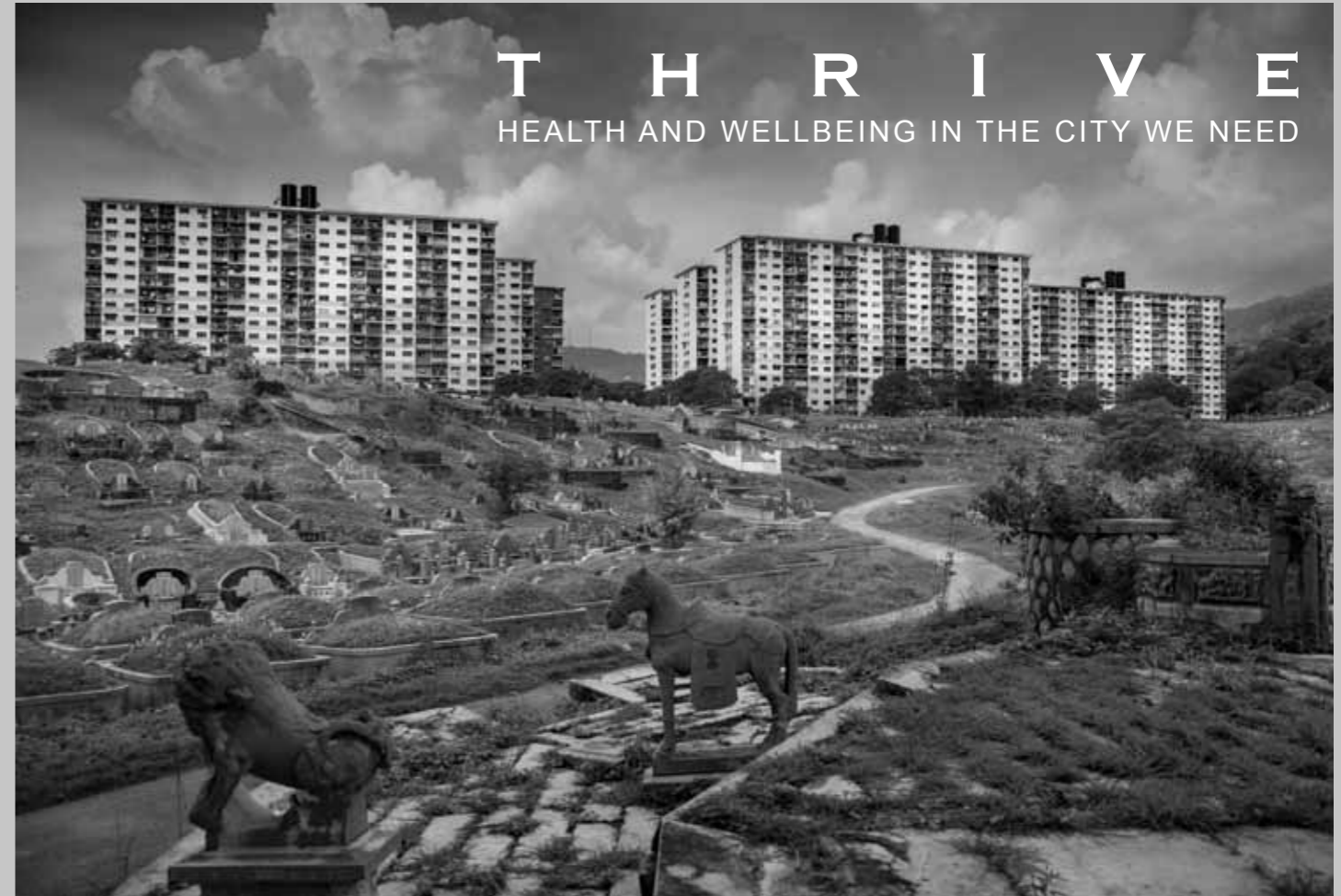
THRIVE is published by the International Institute for Global Health, United Nations University, Kuala Lumpur, Malaysia, which in partnership with Think City, Penang, Malaysia, is the host of the Urban Thinkers Campus, Kuching, Sarawak, Malaysia, 24 - 27 January, 2016.

The Kuching Urban Thinkers Campus is a three day global event bringing together stakeholders from local government, civil society, industry and academia to build consensus around issues for health and wellbeing in urban environments as an input to HABITAT III, Quito, Ecuador, October, 2016.

THRIVE, designed to stimulate thought and ideas through the power of visual art (sourced mainly from SE Asia) and associated text, has been produced for participants in the 2016 Kuching Urban Thinkers Campus. It will also be circulated through electronic networks and can be freely downloaded from internet sites including <www.thriveurban.info>. A selection of artwork from this publication will be on display at the Kuching Urban Thinkers Campus, Sarawak State Library, Kuching, Sarawak, Malaysia.



S C Shekar *Rifle Range Flats, Penang, Malaysia.* 2015
Digital photograph



THRIVE

HEALTH AND WELLBEING IN THE CITY WE NEED

T H R I V E



A former resident of the Rifle Range Flats, Penang, still visits frequently to meet with friends who live in the Flats (see cover picture) and to participate in the lively social activities that take place - including a rigorous work-out in an outdoor, aerobic dance class on Saturday mornings. 2015
UNU-IIGH Photographic Library

The Rifle Range Flats, Penang, were built in 1970 by Hochtief and Chee Seng. They consist of 3,699 units in nine blocks. Currently the monthly rental in two government owned blocks is ca USD \$22 for a 1-bedroom unit, ca USD \$26 for a 2-bedroom unit. In the other privately owned blocks the rent is ca USD \$60 - \$90 per month. The population of the Flats is about 10,000.

The Rifle Range Flats together with Pekeliling Flats, Kuala Lumpur, were Malaysia's first two affordable housing projects for the urban poor. Whereas the Pekeliling Flats, vacated in 2008, were raised to the ground amid great controversy in 2014, the Rifle Range Flats still stand with a thriving community in well maintained blocks.¹

¹ Workshop resource document, S. Kamachy, Think City 'Urban Regeneration Workshop', Penang, August 2015

T H R I V E

HEALTH AND WELLBEING IN THE CITY WE NEED

A Folio of Art and Text
Urban Thinkers Campus / Kuching / Malaysia / 2016

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THRIVE: Health and Wellbeing in the City We Need - A Folio of Art and Text

Editor Uta Dietrich

Writer Matthew Williams

Designer John Reid

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Sarawak State Library
Kuching, Sarawak, Malaysia
24 - 27 January, 2016

2016 Urban Thinkers Campus on Health and Wellbeing in the City We Need

Organisers

- International Institute for Global Health, UNU-IIGH Building, UKM Medical Centre, Jalan Yaacob Latiff, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, MALAYSIA
- Think City Sdn. Bhd., Bangunan UAB, Gat Lebuhan China, 10300 George Town, Penang, MALAYSIA

Partners

- Eastern Regional Organisation for Planning and Human Settlements (EAROPH)
- World Federation of Academic Institutions for Global Health (WFAIGH)
- International Society for Urban Health (ISUH)
- Alliance for Healthy Cities
- International Union for Health Promotion and Education (IUHPE)
- ICSU-UNU-IAMP Urban Health and Wellbeing programme
- The New York Academy of Medicine (NYAM)

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- The State of Sarawak for sponsorship of venue, food and transport in Kuching
- Sarawak State Library partners for local organisation
- Sarawak Convention Bureau for advice and promotional materials

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For further information

Email: iigh-info@unu.edu

Web: <http://www.thriveurban.info/>



A graceful tree of natural heritage and spiritual significance Situated in the centre of Kuala Lumpur, the tree imparts an aura of calm and psychological refuge from the frenetic pace of nearby main streets. 2015. Photographs: John Reid



A G Stokes
Veggies in the sky 2010
 111.2 x 82.0 cm
 Oil on canvas

Dislodged from their gardens on the urban fringe, vegetables fly over inner city suburbs where there is a burgeoning mood for growing things.

The Contested Landscapes of Western Sydney Field Study, Digital Art Bank Environment Studio, SoA, ANU

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INTRODUCTION TO THE FOLIO

THRIVE: Health and Wellbeing in the City We Need. A Folio of Art and Text is the outcome of the Kuching Urban Thinkers Campus (UTC) Art Strategy. The folio is intended to stimulate thought and discussion amongst the participants of the *2016 Urban Thinkers Campus: Health and Wellbeing in the City We Need*, Kuching, Sarawak, Malaysia, January 2016. The folio brings imagery from more than 20 artists together with informative text by writer Matthew Williams about the thematic focus of the Kuching UTC – the environmental determinants of urban health and wellbeing.

From an initial focus in Penang, the Art Strategy became progressively more international in curatorial scope. By no means geographically comprehensive, the artwork included in *THRIVE* has been gathered from a number of sources.

Osman B Saaidin, a painter from Kedah, Malaysia, works in a off-street studio in Penang on portraits and city scenes. Saaidin's painting of a sandal shop (wall display, lower centre) is reproduced on page 24. 2015. UNU-IIGH Photographic Library

Artworks have been selected from a pop-up exhibition, *SURVIVAL! Health and Wellbeing in the Urban Cave*, in Penang, August 2015 - an Art Strategy event that brought together artists who orbit Penang's Hin Bus Depot Art Centre and who attend the Pelita International School, Penang.

SE Asian photojournalist participants in a Think City *Urban Regeneration Workshop* in Penang, August 2015, were invited to submit material from their personal folios.

Artists from Malaysia, Japan, Columbia USA, Australia and India have kindly responded to requests to include their work.

Photographs and artworks referencing the Kuching UTC theme have also been chosen for reproduction from the Photographic Library, United Nations University International Institute of Global Health (UNU-IIGH), Kuala Lumpur, Malaysia, and from the Digital Art Bank, Environment Studio, School of Art, Australian National University, Canberra, Australia.

John Reid, Kuching UTC Art Strategy



THRIVE ONLINE / www.thriveurban.info

ThriveUrban is the phrase that represents the outcomes of healthy and sustainable urban development: a place, small or large, that is built and functions in a way that its residents can thrive. 'ThriveUrban' is used as the title for the website and the key hash tag of the Urban Thinkers Campus.

ThriveUrban is a platform not just with information on the Urban Thinkers Campus on Health and Wellbeing in the City We Need, but also a site where everyone can contribute virtually about urban health and wellbeing with perceived knowledge gaps, discussing issues from different constituent perspectives, uploading images or access information on the eco-social approach to health and wellbeing.

The website also features this folio and a publication on 10 Principles for Healthy and Sustainable Places, an analysis of interviews with 25 leading global urban health thinkers from a range of disciplinary and geographical perspectives.

This platform is envisaged to last beyond the Urban Thinkers Campus in January 2016.



Above:
SURVIVAL! Health and Wellbeing in the Urban Cave, exhibition documentation Gallery 5, The Star Pitt St., George Town, Penang. 2015. Background left to right: Artworks by Ho Ru Pin, Chow Huo Wing and Chun Woei (see page 28). Foreground: Artwork (Detail) Preet / Hafiz Lian (see pages 54, 60, 64, 70). UNU-IIGH Photographic Library

Opposite page:
SURVIVAL! exhibition opening event 2015. From left to right: Sofnie Salim, Jaden Cheong Khy-Jie, Hafiz Lian, Darshini Preet, and Ana Ooi (see page 5). Background artwork: Pelita International School, Penang, Malaysia ***A Bug's Life*** 2015 (see page 73). Photograph: Rae Hong



Ana Ooi *Notice* 2015
20.0 x 30.0 cm. Oil paint on canvas

'Enjoy the little things, for one day you may look back and realize they were the big things'. Robert Brault. *It's important to make it a habit to often look up to the sky, or look closely and to just notice. Seeing the tiny and subtle details in our life will help to appreciate it more.*

From the exhibition, '*SURVIVAL!*
Health and Wellbeing in the Urban Cave'
Penang, 2015

THE UNITED NATIONS UNIVERSITY INTERNATIONAL INSTITUTE FOR GLOBAL HEALTH

UNU-IIGH is the global health think tank for the United Nations, building knowledge and capacity for decision-making about global health issues. Based in Kuala Lumpur, UNU-IIGH takes an eco-social approach to health – addressing ecological, economic and social foundations of human health – and in so doing, mirroring the pillars of the 2030 Agenda for Sustainable Development.

UNU-IIGH focuses on three programme areas:

1 Planetary change and health

This programme addresses relationships between changes in planetary systems (e.g. climate change, biodiversity loss) and human health, and their implications for sustainable development policy and practice.

In partnership with Future Earth, this programme is fostering expertise in developing countries to advise and assist governments on strategies to address the health impacts of global environmental change.

2 Governance for global health

This programme focuses on strengthening policies, regulations and other governance arrangements to protect and promote health in an increasingly globalized world.

3 Urbanization and health

This programme seeks to improve the understanding of complex urban health problems at the intersection of the built environment, political economy and sustainable development, using systems approaches.

A key initiative is as sponsor of the 10-year global interdisciplinary science programme on Health and Wellbeing in the Changing Urban Environment using Systems Approaches, in partnership with the International Council for Science (ICSU) and the Inter Academy Medical Panel (IAMP). This programme aims to build knowledge and capacity for decision-making about cities and thereby protect and promote health in sustainable ways.



UNU-IIGH was established in 2007. It is generously supported by an endowment from the Government of Malaysia. The Institute is hosted by the Universiti Kebangsaan Malaysia Faculty of Medicine in Bandar Tun Razak, Kuala Lumpur.

For more information visit:
<http://iigh.unu.edu/>

Opposite page:
Brilliant Morning Kuala Lumpur, Malaysia
2015
UNU-IIGH Photographic Library

Right:
Kai Wasikowski *Handscape # V*
2014
33.0 x 33.0 cm
Pure pigment on archival paper





THINK CITY

Think City is providing urban policy thinking, implementing innovative urban solutions and driving urban regeneration. It is a community-based urban rejuvenation organization that seeks to increase the wellbeing of the communities by creating more sustainable and liveable cities.

It was established in 2009 in Penang, Malaysia, to spearhead community-based urban regeneration. Due to its impact and success in Penang, it was given the mandate to expand into Kuala Lumpur and Butterworth.

To successfully deliver long-term holistic solutions, Think City works closely with government, local and international agencies and the community; building effective partnerships and enhancing human capacity.

As part of its urban solutions, Think City is approaching the regeneration of those cities in which it is based with innovation, seeking to implement best practices, creative solutions and fresh ideas from around the world to help make Malaysian

cities world class. Think City has played a key role in the rejuvenation of the George Town World Heritage Site, and takes a holistic view that the city must embrace its past to thrive in the future.

Partnering with the Urban Thinkers Campus on Health and Wellbeing in the City We Need, gives Think City an opportunity to learn from people around the world and share its experiences and discuss in particular benefits that heritage, urban regeneration and public spaces can have on health and wellbeing.

For more information on Think City, visit: <http://www.thinkcity.com.my/>



HEALTH AND WELLBEING IN THE CITY WE NEED, KUCHING, 2016



The Urban Thinkers Campuses (UTCs) are an initiative of UN-Habitat, conceived as an open space for critical exchange between urban actors who believe that urbanization is an opportunity and can lead to positive urban transformations. Organized under the aegis of the World Urban Campaign (WUC) in the context of the 3rd United Nations Conference on Housing and Sustainable Urban Development (Habitat

An Urban Thinkers Campus Partner Meeting Penang, 2015

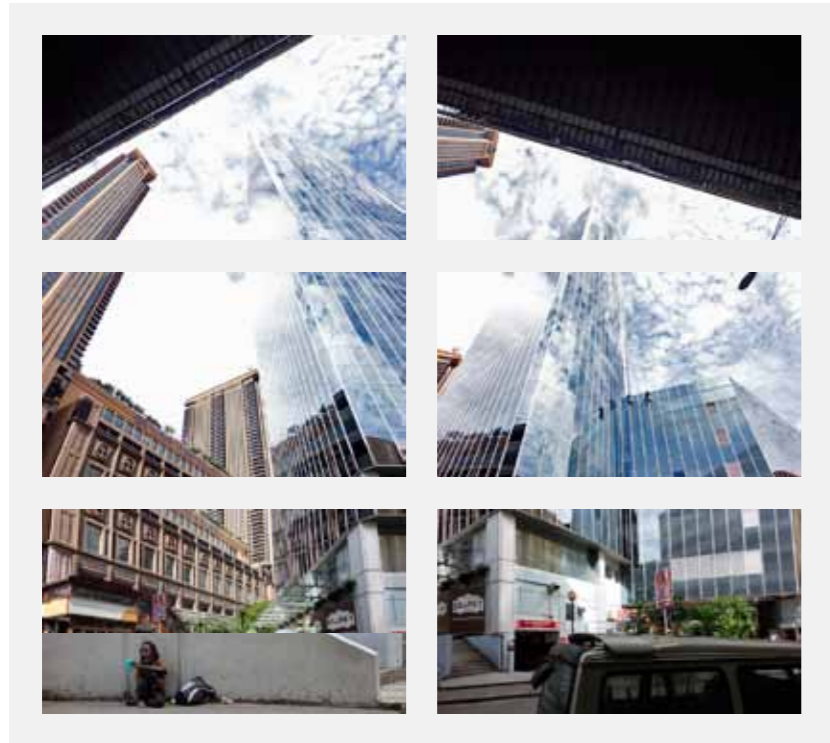
From left, clockwise around the table:
Prof Tony Capon, Director, United Nations University - International Institute for Global Health (UNU-IIGH)
Dato' (Dr) Anwar Fazal, Chairperson, Think City (CT)
Hamdan Abdul Majeed, Executive Director, TC
Daniel Lim, Programme Manager, TC
Daniel Lee, Programme Executive, TC
Dr Jose Siri, Research Fellow, UNU-IIGH
Uta Dietrich, Research Fellow, UNU-IIGH
Liza Haslan Tan, Program Assistant, UNU-IIGH

UNU-IIGH Photographic Library

III) in 2016, the UTCs aim to contribute to the New Urban Agenda, which will frame urban development in the critical decades to come. A series of UTCs exploring a range of themes related to urbanization and development are taking place in 2015 and 2016.

The purpose of the UTC in Kuching, Malaysia in January 2016 is to re-imagine urban development in the service of sustainable urban health and wellbeing. The UTC will seek, through its outcomes, to imbue the New Urban Agenda with an integrated approach on health and wellbeing. The UTC is also an avenue for the United Nations University's International Institute for Global Health (UNU-IIGH) to promote an eco-social approach to health (see later chapter), develop partnerships across disciplines and sectors, and explore research needs in this critical area. Such partnerships are already being forged and strengthened as we prepare (see photo).

The UTC comprises a three-day event with participants from a range of sectoral



Left:
Street. Kuala Lumpur, Malaysia. 2015
Photographs: John Reid

and knowledge backgrounds. It is intended as a platform to build consensus between partners engaged in addressing urbanization and health challenges and proposing solutions for urban futures. Constituent groups include but are not limited to local authorities, civil society organizations, parliamentarians, professionals, trade unions, researchers and academics, foundations, businesses and industries, slum dwellers, women's groups, children and youth and indigenous people. Each of these groups is a key player in the Habitat III process and must be supported in voicing challenges, raising issues and proposing solutions in order to articulate an effective, inclusive New Urban Agenda.

Opposite page:
Office Foyer Penang, Malaysia. 2015
Photograph: John Reid





Themes include:

- a) Green and healthy urban environments
- b) Inclusion and urban health equity
- c) Culture, heritage and urban wellbeing
- d) Systems thinking and co-production
- e) Urban governance for health.

In summary, UTC participants have the opportunity to promote healthy urbanization and decision-making, create new knowledge and partnerships, network with individuals and organizations representing a broad set of urban interests, disseminate their viewpoints and priorities, and influence the shape of the New Urban Agenda.

For more information, please visit:

www.thriveurban.info

Left:
Gayatri Nair *Penang Folio 2015 #3* 2015
Digital photograph

Opposite page:
Communal Swimming Pools KLCC Park, Kuala Lumpur, Malaysia. 2015. Photographs: John Reid



John Reid *Walking the Solar System Far South Coast, New South Wales, Australia* 2013. Digital photograph

On a beach at night and illuminated by a hand-held flashlight, visual artist John Reid assumes a walking posture at odds with gravity as the moon rises relative to the Earth.

Holding the pose for one contemplative minute, Reid will travel approximately 1,800 kilometres relative to the Sun to reaffirm his Solurban citizenship before returning to Earth (one always does from a Solar Walk).

For Reid, the brief, meditative trek through the Solar System provokes insights about home.

“From a Universal perspective It’s clear that Earth’s premium location and real estate value have been severely compromised by poor property management. Imagine having tenants still mining coal in huge quantities and burning it in a living room which has no chimney”, he said.

See: "Walking The Solar System: John Reid" on Facebook

How to Walk the Solar System • Walk to an inspirational location with a friend (ask your friend to take a photograph) • aesthetically compose yourself in the scene • adopt a walking posture at odds with gravity • take the strain • maintain the pose for one minute and travel 1,800 kms relative to the Sun • revel in the vast expanse of the Solar System • contemplate the significance of planet Earth • return as a good Solurban citizen.



THE GLOBAL PICTURE

The Earth’s cities (mostly small and medium-size, and in low and middle-income countries) are absorbing one million people every week. As of 2008, and for the first time in human history, more than 50% of the global population live in cities, and urbanization, mostly in developing countries, continues with inexorable momentum. Cities, large and small, define us. So, what does this mean for human health?

To better answer this question, we need a new framework for understandings of health and human development. This eco-social framework, in contrast to the traditional biomedical view, positions human health within a system which encompasses economic, ecological and social dimensions. As such, changes in one area of this complex system can have multiple consequences, positive or negative, in close proximity or far away.

This rich understanding of health sits within the concept of planetary health, defined by the Lancet Commission on Planetary Health as ‘the health of human

civilization and the state of the natural systems on which it depends”. In other words, the way people live in cities affects their health via exposure to pollution, levels of physical activity, food choices, safety and social connection, etc., and also crucially affects the health of the environment. Human habitats in cities diminish biodiversity, produce carbon emissions (especially from cars), leading to climate change and pollution, and cause changes in ecosystems. Health is an input and an output of the system, and the health of people and the health of the planet are interdependent.

So, we have made strides in public health improvements, and have fed and provided for the energy needs of a burgeoning global population, but have traded off environmental health, especially the Earth’s regulating and supportive processes. Humanity’s impact on the biophysical conditions of the Earth has been so great that we now have a new term for the present geological epoch: the Anthropocene. Life

expectancy, child mortality, malnutrition, and mortality rates from infectious disease have all improved, and poverty rates have seen their greatest decline in human history. Simultaneously, ocean acidification is killing marine species, flower populations are disappearing, and most worrisome of all, the future health and social impact of climate change threatens all the above human health gains and human civilization itself. Inequity is another central feature of the picture. The tropical ecosystems in poorer countries (low and middle-income), for example, have been exploited to maintain lifestyles in high-income countries, which tend to have temperate ecosystems. Consumption is what feeds these lifestyles. And does consumption really make us happier?

The burden of disease has shifted and we now face an epidemic of chronic disease, much of which is attributable to our food systems. Diet-related non-communicable diseases (NCDs) top the global list as a cause of disability and death. Obesity, diabetes, cardiovascular disease (all

especially related to physical inactivity in cities) cancer, and depression are the new epidemics. But it is not just our food systems which are to blame. Disease is written into the physical design of many cities, especially sprawling car-dependent cities, which discourage walking and cycling and the attendant health benefits, besides the social interaction possible in walkable, people-friendly neighbourhoods.

From an evolutionary perspective, we now know that this chronic disease is a consequence of human maladaptation to contemporary patterns of urban living and settlement, food systems, and lifestyles dependent on fossil fuel energy. Yet, the built environment can also be the potential treatment for chronic disease, and a place for disease prevention, if urban planners, designers, politicians, architects, health experts and transit specialists come together to reimagine and reconfigure our cities for optimal health outcomes with minimal environmental impact. Already, we are making sustainable and scalable

interventions, building more bicycle lanes in some cities, introducing bike-share systems in Paris and Lyon and Mexico city with considerable success, and adding green walls and urban vegetable gardens to feed and cool our cities.

There is hope, and there are paths to take. Coupling human and environmental health presents a critical road for comitigation of the impact of climate change and for improving human health, whilst preserving the Earth's ecosystems. But change must start in local communities, in households, neighbourhoods, civic groups and constituencies. Momentum gathers speed, very often, from the bottom, and follows an upward trajectory. Enlightened individuals can be the vector for change, especially as they progressively gain power in groups and influence people, paradigms, institutions, and authorities around them.

To improve the health of people and the health of the planet, healthy cities are the key, and very often these cities are uplifting and beautiful places, capable of inspiring and bringing out the best in us.

Further Readings:

- 1 Mc Michael, A. J. (2014). Population Health in the Anthropocene: gains, losses, and emerging trends. *The Anthropocene Review*, 1:44-56.
- 2 Millenium Ecosystem Assessment, (2005). *Ecosystems and human Well-being: Synthesis*, Washington, DC: Island Press. Retrieved from <http://www.millenniumassessment.org/documents/document.356.aspx.pdf>.
- 3 Steffen, W., Broadgate, W., Deutsch L., Gaffney O., & Ludwig C. (2015). The trajectory of the Anthropocene: the great acceleration. *The Anthropocene Review*, 2: 81-98.

Opposite page:

Melissa Gryglewski

Sk8r Finch 2014

30.0 x 40.0 cm

Pencil, marker, and watercolour

In my imagination the lines between human, plant and animal are very fuzzy. I find joy in discovering the uniqueness but also the connectedness of all things. My work speaks directly to my imaginative process: each piece is a visual representation of a thought I had whilst I was journeying through a suburb contemplating the human / non-human relationships that I encountered. It is with delight that I share these observations, and as importantly, the sentiment of endearment that is behind them.

Crace Field Study, Digital Art Bank, Environment Studio, SoA, ANU





ENVIRONMENTAL DETERMINANTS OF URBAN HEALTH AND WELLBEING

Are our cities making us healthy and happy?

Urban health is affected by the physical environment (e.g., water and sanitation, the social environment (e.g., social networks and one's social capital), and the range of access to social and health services. It is often conceptualized at 3 levels: household (e.g., indoor air pollution), community (e.g., transport – traffic deaths and injuries), and societal (e.g., heatwaves). Transboundary events also have an impact, such as the haze over Kuala Lumpur and Singapore due to smoke from forest fires in Indonesia.

Opposite page:
Rosario Lopez *Insufflare, series* 2007
110.0 x 135.0 cm. Fine art inkjet pigment print
Courtesy of the artist and Casas Riegner Gallery
Bogota

The intention proposed by 'Insufflare, series' is that of understanding landscape as a container of natural forces that, placed in relation to a three-dimensional object such as an aluminum cloth, creates a network of relations affecting its structure and consequently its boundaries. This photographic series is a metaphor of how the human body reacts in this particular situation.

Density, the distinguishing feature of cities, is a mediating influence, when, for example, it enhances the transmission of infectious diseases. Most of today's urbanization is occurring in the developing world, and a significant amount is leading to growth in informal settlements (slums). This is where the most serious health problems exist in developing cities. And often, these cities are in tropical countries with their tropical disease burden.

Inevitably, the distribution of disease is unequal in urban areas, with concentrated areas of disadvantage, and some population groups more vulnerable than others. For example, women and girls are often more adversely affected when they are reluctant to use common latrines for reasons of culture and modesty. This takes us back to the same salient question: In a rapidly urbanizing world, how can we grasp this historical opportunity to ensure our cities do not make some sectors of the population more ill than others?

In developing countries, access to clean

water and sanitation is a critical factor affecting health status. For example, in urban areas of Africa, Asia and Latin America more than 50% of the population are suffering from diarrhea and worm infections, spread by contaminated water. In order to sustain human life, cities consume vast amounts of energy and resources, and thus need to dispose of great amounts of waste. In developing countries, this is a contributor to disease as a lack of liquid or solid waste management means many people are exposed to disease vectors such as mosquitoes.

At the household level, cooking, heating and boiling water in many developing cities relies on the burning of solid fuels (wood, agricultural residues and dung), which emits smoke. While everyone is impacted, children suffer the most as indoor smoke doubles the risk of child pneumonia and other acute respiratory infections.

In 2013, 1,129 garment workers died when their building collapsed in Dhaka, Bangladesh. Unsafe workplaces pose

Yoshimi Hayashi *Helms Alee* 2005 - Present
 Omote Sando, Tokyo, Japan
 Video installation and continuing time-based work

This project documents the flow of wind in urban and rural settings. The wind current becomes a metaphor for my psyche. The more I clutter my mind, the more it is difficult for my spirit to travel in a natural harmonious manner, thus creating dissonance. Navigating by means of my handheld sail in rural, open, landscapes, the consistent winds allow me to travel in a direct course with clarity of mind. In large cities, buildings impede the wind flow creating crosscurrents; cars and buses zoom by and blow harsh puffs of toxic smoke; and the landscape of foot traffic constantly and busily changes.



a range of health hazards, especially in deprived urban areas or cities such as Dhaka. Besides the condition and maintenance of the buildings themselves, toxic products, injury, ergonomic hazards and noise are other unhealthy elements of poorly regulated workplaces.

Food systems (discussed in detail in a separate section) are vital to feed large urban populations, and while there are opportunities, the pressures are significant. Urbanisation limits possibilities for household food production, so that food is transported over long distances, contributing to environmental damage (greenhouses gases). What's more, in urban environments, beef, pork and chicken are reared industrially. This process depends on land-clearing and the extensive use of fertilizers, water, pesticides and veterinary antibiotics. The methane production from livestock is a more harmful greenhouse gas than carbon dioxide.

Transport (also discussed in detail in a separate section) in cities affects physical and

mental health in a number of ways: through accidents and injury; the contribution of air pollution to cardiovascular and respiratory diseases; physical inactivity related to obesity and diabetes; and, social isolation and depression in car-dependent neighbourhoods. The truth, we now know, is that we are less happy in neighbourhoods where cars and their infrastructure prevent us from walking comfortably. There are also many inequities built into transport systems. For example, children and young people suffer the most, as the most common cause of death among this group in developing countries is motor vehicle accidents.

The large energy inputs on which cities depend contribute greatly to climate change, the impact of which is worse in urban areas. For example, the effects of heatwaves are more intense because of the urban 'heat island' phenomenon. The urban poor suffer more from water-and-food-borne gastrointestinal infections, and vector-borne diseases (e.g., dengue fever) due to climate change.

There are feasible interventions, but we must also remember that a redistribution of resources (especially financial) from affluent areas of the world to developing areas is required if we wish to improve the living environment and health of the poor in developing country cities.

Further Readings:

- 1 Bailis, R., Ezzati, M., & Kammen, D.M. (2005). Mortality and greenhouse gas impacts of biomass and petroleum energy futures in Africa. *Science*, 308: 98-103.
- 2 Rah, J.H., Cronin, A.A., Badgaiyan, B., Aguayo, V.M., Coates, S., & Ahmed, S. (2015). Household sanitation and personal hygiene practices are associated with child stunting in rural India: a cross-sectional analysis of surveys. *BMJ Open*, 5: e005180.



Above:
Punggol, Singapore Housing and Development Board New Town Northeastern Singapore. 2015
UNU-IIGH Photographic Library

A SENSE OF PHYSICAL AND SPIRITUAL PLACE

What does it mean to have a sense of place? You often have a sense of where you want to live and how that place could feel. And then you find it. It's Taipei or Fukuoka or San Jose. But why do I feel at home here? Is it the memories stored in the stone of the buildings, or the stories the citizens recount about the city itself? Is it the buildings that ignite my own personal sense of beauty, something that could only find expression in this place? For the Japanese, beauty emerges in the phases of an object's or a building's lifetime and in the patina of time (the concept of *wabi sabi*), but we don't all feel at home in Japan. Perhaps the streetscapes, buildings and sightlines evoke something greater, almost transcendent. Yes, Renaissance Florence may do that, but my spirituality is not yours, so why can't Kolkata or Lagos do the same? The British writer Ben Okri says the mountains make us yearn for unrealised grandeur. Is that what makes the residents of Vancouver feel at home? Does the built environment work in the same way? Perhaps a city that we

feel physically and spiritually connected to makes us reach out toward a better version of ourselves as individuals, and all that we can achieve collectively as a community and a civilisation.

But then it's the facilities, infrastructure and rituals of every day that make us feel at home, and that nourish our physical and mental health, isn't it? It's the house which promotes good health and contains no hazards such as mould, allergens and asbestos, but the house must also be a home laden with meaning, a setting for intimate relationships, and a source of personal and cultural identity. It's the neighbours that I see my family and cultural history in, the food I recognise, the smell of the sea nearby, the dirt playing field where I kick a ball around with friends. It's the safe neighbourhoods that protect my family. But, why are some gated? And who are those security guards in uniforms? Jane Jacobs said the 'eyes on the

Right: Junyi Mah *Rifle Range Flats Penang, Malaysia* 2015. Digital photograph





Left:
Digital Games Room Komtar Mall, Penang
 Malaysia. 2015. UNU-IIGH Photographic Library

Opposite page:
 Chun Woei
Defender of The Universe 2015
 29.7 x 21.0 cm
 Digital print on paper

Everyone needs a defender to help protect urban spaces from the continuing, tormenting effects of pollution by evil forces. This heroic 'Defender' is a figment of the imagination - one that we might encounter in dreams or on television. It once lived in the heart of many back in the 1980s. Someday, this 'Defender' could actually help protect us from further environmental damnation.

From the exhibition, *SURVIVAL! Health and Wellbeing in the Urban Cave*. Penang, 2015



street' (our neighbours, community) are the best 'security guards'. Was she right?

If a sense of physical and spiritual place is all of these, what are the ingredients of such a city? As urbanists, how can we mould, rebuild, tinker with and preserve cities and towns to ensure its residents feel at home, in their bones and in their spirit? We need the heroic 'Defender of the Universe' (pictured) to stop the pollution and save our health, but also because our spirit is lifted when we can see the sky. We need to preserve the history in the buildings we vow not to rip down, in the green spaces we fight to keep and in those that we decide to grow (the neighbourhood vegetable patches). Do we need to pull down more freeways that blight our cities, as the previous Mayor of Seoul (and later President) did, to reveal a long buried stream in the heart of the city? Do we need to put back the shrines and temples and mosques and parks, and could we construct more pavements? Because, after all, we have to walk to mark our territory, to feel a sense of place, don't we? Why did we

give that space up for the automobile and its ubiquitous infrastructure? Now we know the world via the car, not the soles of our feet.

And if there were fewer malls and more shrines or mosques or parks, or streams or public art, perhaps people would come out of their houses more, and come back to the streets. Research tells us they would, because, as Jan Gehl reminds us, people need to be around other people. Then a city is a home. If we walked more or sat more in parks, what would we think or dream? If we think about consumption when we are in malls, what would we think about if they occupied less space in our cities? And would our cities be less polluted with advertising billboards and the detritus and litter of consumption?

And how can we make everyone feel a sense of place, feel at home? Perhaps we need, for example, braille signposts for the blind as Sydney City is investing in. How do we ensure the elderly, the marginalised, the newcomers and the long-time residents



feel equally connected to their city?

And is our private house the only place we should feel 'at home' in? Why not the street, or the public square? Our ecological footprint demands that we live in smaller homes in the future, as the Japanese already do. And as poorer populations do in many cities. Then, we will need to find home and spirit in public places as well.

If we felt such a sense of physical and spiritual place in our cities, who could we become, and what could we achieve together?

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Opposite page:
Eva Struble **Admiral's Row 2** 2011
114.3 x 154.9 cm
Oil and acrylic on canvas
From *Landsmen*, an exhibition of paintings
that explored architecture of the Brooklyn Navy
Yard, New York, NY USA

Above:
Mall seats San Diego, CA USA. 2015
UNU-IIGH Photographic Library

Following page:
Low Density Living George Town, Penang Malaysia.
2015. UNU-IIGH Photographic Library



MOBILITY AND TRANSPORTATION

How do we want to move around our cities? And, what forms of mobility will make us healthier and happier?

Car companies, urban planners and local governments in the twentieth century assumed the answer to the first question for us. They built lots of cars, planners laid out sprawling cities to accommodate them, city officials invested more in road infrastructure than public transit, and advertisers told us we needed a car to be happy and show our peers we were successful. In many cities (Atlanta, Kuala Lumpur, etc.) people were left with no alternative but to buy a car, unless they could not afford one, and then getting around the city became very problematic. The result was private automobile dominated transport systems, with entrenched transport inequality.

And, in answer to the second question, we now know that the health and well-being impacts of this car-centric form of mobility fall into 5 areas: road deaths and injuries, respiratory illness, cardiovascular disease and cancer from air pollution,

obesity, diabetes and cardiovascular disease related to physical inactivity, social isolation and higher rates of depression in car dependent neighbourhoods, and social and health inequalities. Of course, private transport systems contribute greatly to global warming through their greenhouse gas emissions. To be fair, cars afford certain freedoms (unless caught in a traffic jam), allow us to look after family members, for example, by transporting children and elderly parents to medical treatment, give us access to social networks and employment. They provide a sense of security in unsafe neighbourhoods and satisfy the consumer desires of some. But, the collective cost to society has been high.

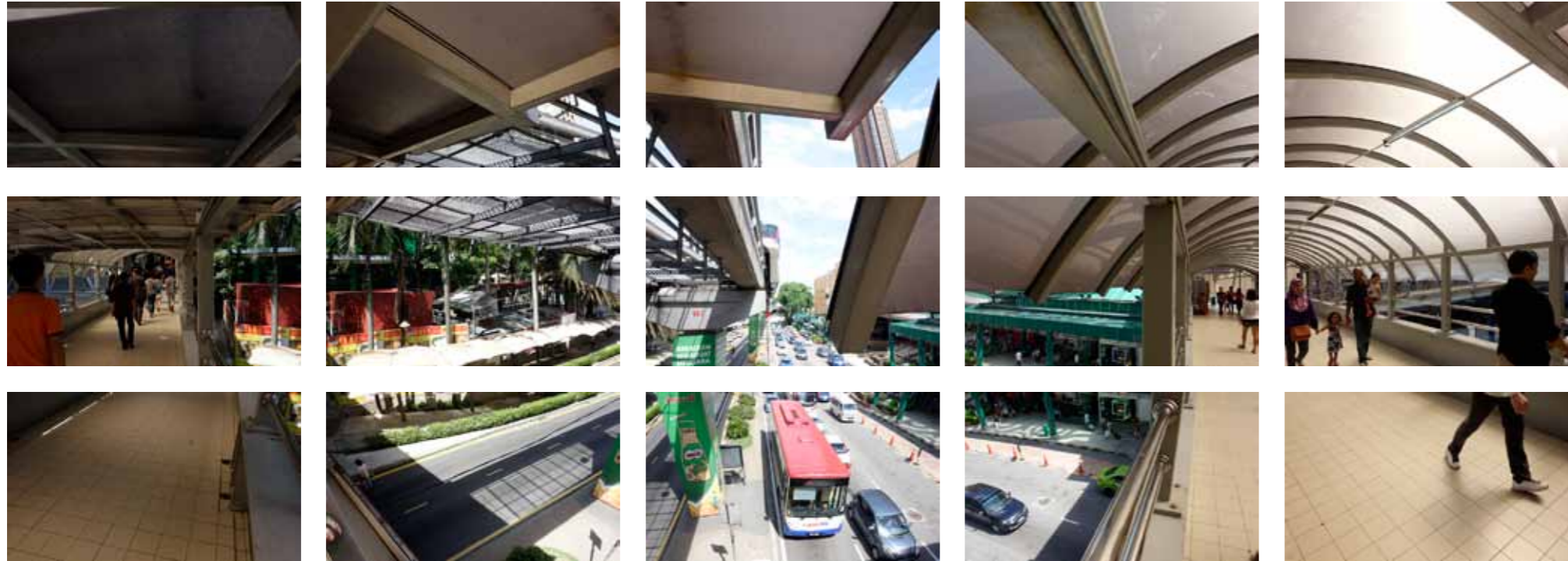
We began to realize that our cities were designed primarily to move cars, rather than people. And, as Gehl poignantly reminds us, a city can be designed for cars or designed for people, but not for both. Or as Montgomery points us, 'It is not moving vehicles per se that nourish the city, but people and goods'.

New questions arose: For whom should we design easy mobility? And in some developing countries, especially, urban planners, such as Enrique Penalosa, Mayor of Bogota from 1998 to 2001, asked 'Why should systems of mobility privilege the middle class who can afford cars only? What about the great numbers of low-income residents and poor? How can mobility make us more active and healthy? How can mobility make us happier?

The answer is that while the automobile has a place in the mobility mix, active transport (walking and cycling) and mass transit options such as light rail and BRT (Bus Rapid Transit) are more desirable for a number of reasons. They promote individual health, reduce pollution-related illness, reduce greenhouse gas emissions, and reconfigure urban space towards more walkable neighbourhoods, which

Opposite page: Osman B Saaidin *RM 10.00* 2015
36.0 x 55.0 cm. Watercolour on paper
(See photograph page 1)





A Pedestrian Walkway, Kuala Lumpur, Malaysia, provides safe passage. 2015. Photographs: John Reid

encourage social interaction and build social capital within communities. Children can walk and cycle without fear of being hit by cars, the elderly are more inclined to venture outdoors, and green space is restored to spaces previously occupied by cars. And our sensory landscape becomes more attractive, when the sound of cars and the smell of their fumes gives way to the sounds of the city itself and the smell of fresh air.

Re-imagining mobility from a people-centred prism has had great results. In Mexico City, for example, new bike share systems are proving popular with women especially, a group that is often more vulnerable to transport exclusion, mostly due to safety fears. Sweden's Vision Zero policy has reduced road traffic deaths by 50% since 1997, by redesigning streets according to the way people use (and misuse) them. It now has the fewest traffic deaths per capita in the world. In Copenhagen, the preferred mode of transport for almost half of the population

is the bicycle, and as the city's Green Wave initiative is rolled out to make Copenhagen the world's first carbon neutral capital by 2025, wireless LED lighting embedded in bicycle paths uses sensors feeding into software to provide information to cyclist about traffic conditions ahead

This embrace of digital technology is occurring in other forward-thinking cities also. Apps on smartphones allow people to find the nearest car or bike share facility, so that the car, according to the Mayor of Lyon, is now becoming an accessory to the smartphone for some groups. Status doesn't have to be about owning a private automobile, but about sharing systems of mobility. The New Cities Foundation argues that the future of mobility lies in open data and integrated mobility platforms. And then there is the paradigm shift towards viewing transport as a customer-oriented service. Various uses for driverless cars, for example, are being explored by the city of Gothenburg in Sweden. And, Google is investing in driverless car technology



Active Transport = Walk / Run / Cycle / Bus

Rebecca Lanning *Oh Gary Darling* 2007
60.0 x 90.0 cm
Bus advertisement (Modified for publication)

The Art of Moving Field Study, Digital Art Bank, Environment Studio, SoA, ANU

hoping to reduce the number of car accidents by taking human error out of the equation.

But as we embrace this technology, we must not lose the lesson of the twentieth century – that mobility should be designed first and foremost for people in the paths, neighbourhoods and routines that occupy our daily lives.

And what about developing cities? As the cities of China, Nigeria and Myanmar speed towards the future, they too are becoming

attached to the car. Can they find a better transport mix in time? Will they find their own solutions? Who is missing out in these cities?

Finally, it is important to consider how mobility is actually affective too. The Danes talk about the ‘psychology of mobility’. Perhaps the ultimate question is, ‘How do we want to feel as we traverse our cities? Do we want to feel healthy, happy, at ease and socially connected? If so, then the answer is clear.

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Timo Gill *Pick Your Tyre* 2007 60.0 x 90.0 cm
Bus advertisement (Modified for publication)

The Art of Moving Field Study, Digital Art Bank, Environment Studio, SoA, ANU



SENSE OF COMMUNITY

Cities brings together strangers who depend on each other, and that dependence plays out in economics, culture, mobility and myriad other ways. In the early 1960s, Jane Jacobs drew out the most salient element of this mix. She showed us that a city could be designed to elicit the greatest possible social capital. Social capital allows us to access resources, such as exchanges of social support and the possibility to undertake collective action, through our social connections. The amount of social capital in a community is

Opposite page:

Sense of Community Food market, Rifle Range Flats, Penang, Malaysia. 2015. Photograph: John Reid

Families, friends, couples and solitary newspaper readers cohere as a colourful community over fresh food and drinks along the market concourse.

Following page:

Grace, a Canberra suburb, ACT Australia. 2014
Photograph: John Reid

Student artists are briefed about the sustainability and health features of this award winning suburb to inform art production for a local exhibition

determined, especially, by the level of trust, and research shows us it has significant health benefits. Neighbours, for example, pitch in to look after each other's children, there is a heightened sense of safety, and strangers find common ground in coming together to undertake collective action, such as protesting the closure of a local school. The psychosocial benefits improve health status. For example, the quality of sleep of people who feel connected is better, they are more resilient, live longer, and are happier. US research shows that there is an association between perceptions of levels of community trust and health. As well, mortality rates are lower in US states with high social capital.

More than anything, the best cities are those which strengthen the social ties and emotional connections between friends, families, and strangers. This is how we should see adding value in cities. If the ultimate goal is happiness and meaning, then research repeatedly tells us the most robust source of these two is the quality of our

intimate and more prosaic connections with others. Partners, children, friends, strangers in the street, and casual acquaintances who exchange daily face-to-face greetings on the footpath, or in the park, are our greatest source of strength and happiness. The question is, 'Are we doing a good job of designing this into our cities? And how can we do more of it? There are specific features of the built environment that may enable or impede social interaction, including, for example, the width of sidewalks, street layout, and mixed land use, which builds in more opportunities for daily interactions, thus generating more opportunities for social connection.

Our history in this regard, however, is varied. In the early twentieth century, streetcar neighbourhoods found the right geometric mix. Planners realized that a critical mass of people was necessary to make streetcars viable, and they assumed people wanted to be within a 5 minute walk of shops and streetcars. Housing, therefore, was designed to this end, and it



was a win-win. Developers and streetcar providers made a profit, and people felt happy and connected in their walkable neighbourhoods. Unfortunately, the arrival of the automobile determined a new layout of cities, imagined as some kind of private transport and suburban utopia. This was not the case. Decentralisation (sprawl) of cities has led to social isolation, and, as Montgomery points out, social isolation

is the greatest environmental health threat in cities. Its harmful impact is worse than, overcrowding, pollution or noise. The odds of experiencing colds, strokes, cancer, heart attacks and depression decrease, the more connected we feel to family and community.

The auto-centric urban form is conducive to social isolation because it precludes informal social interactions (bumping into acquaintances, neighbours, local vendors

when walking through the neighbourhood) and makes an organized get together with friends, participation in team sports, and involvement in social groups harder when forced to commute in dispersed cities. As Montgomery also reminds us, the access citizens have to each other, is determined largely by how thinly a city is spread out.

Decades later, and at odds with an entire paradigm of twentieth century private-

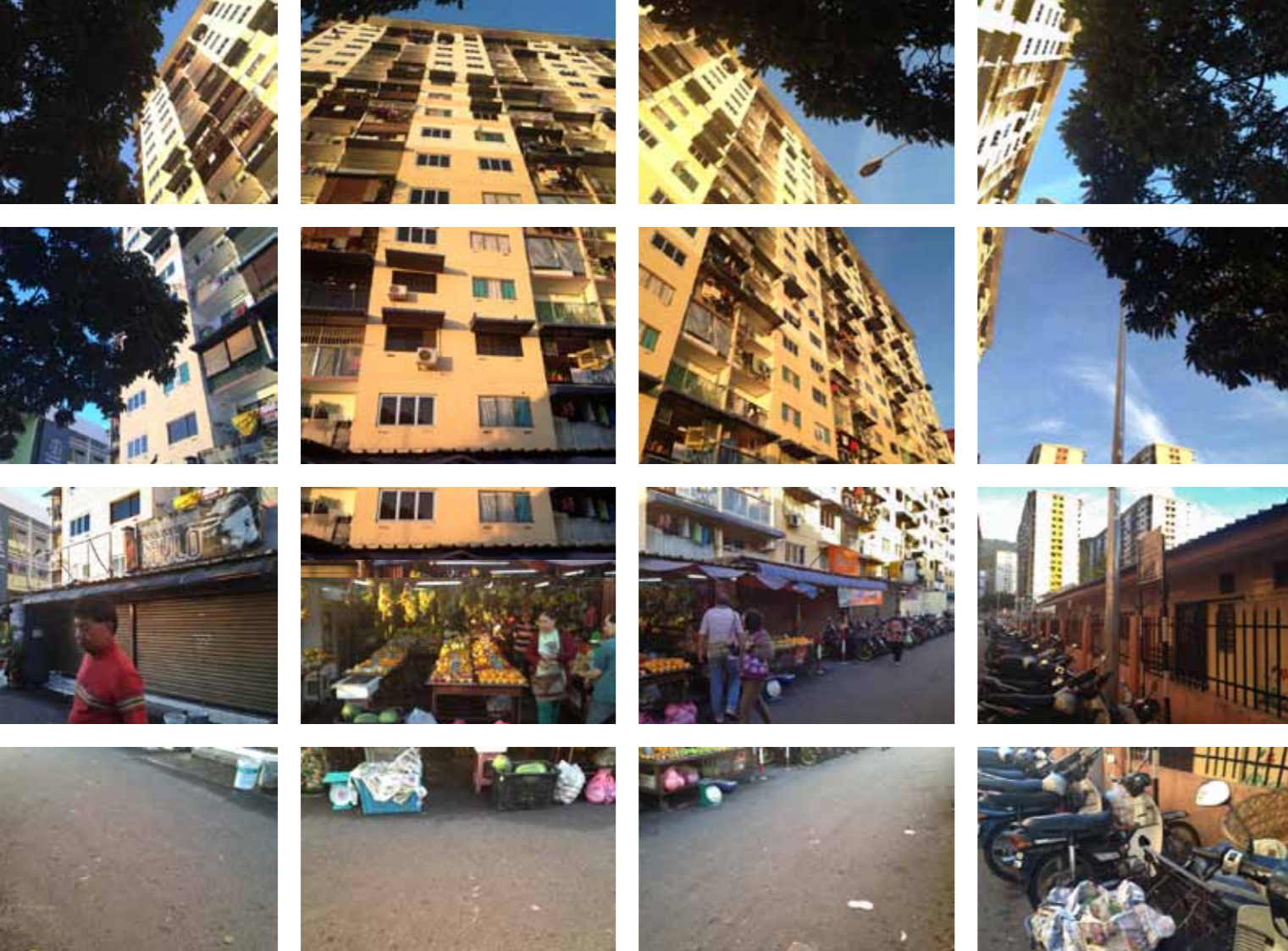
vehicle dominated mobility and low density sprawl, we are re-imagining the city through a more people-centred prism. Active transport (i.e., bikeshare, public transit, walking) housing design, street layout, density, and building scale are all being reimagined through this prism. For example, planners have found that mid-density design is optimal for social interaction, and that people in high rises feel

more lonely than those living at street level. And, yes, while people want conviviality, they want control over that interaction. They want to be able to decide when to mix with others and not be forced to mix with strangers by dint of the design of their buildings, common areas and streets.

Ultimately, if we can't tinker with these elements to bring us together, we must ask ourselves, 'What good are they?'

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- 3 De Silva, M.J., Mc Kenzie, K., Harpham, T., & Huttly, S.R. (2005). Social capital and mental illness: a systematic review. *J. Epidemiol Community Health*, 59:619-27.



Opposite page:
Fruit Shop Rifle Range Flats, Penang,
 Malaysia. 2015
 Photographs: John Reid

FRESH FOOD

In a majority urban world, ensuring a supply of fresh food for cities has become a hot topic.

The challenges are numerous and the answers are not so easily identified in settings which feature inadequate bio-environmental resources and food system related capabilities. While urban agriculture is prominent in some places, most towns and cities rely on food grown outside of their perimeters and such supplies often have to travel long distances, sometimes without adequate refrigeration and can be prone to interruption when there are severe weather events, corrupt supply chains and civil strife. However, access to 'healthy' nutrition cannot be assumed even if there are adequate supplies of dietary diversity present from urban agricultural sources, rural supplies or international imports. High fat, sugar and salted foods are readily accessible in urban settlements, they are heavily promoted, and they are often cheaper than fresh ingredients.

For low-income residents and single

people without families, a reliance on street foods of variable quality and safety poses nutritional issues. And households within informal settlements often lack not only cash, but cooking and water facilities to prepare healthy meals. Socio-economic and cultural drivers complicate the presence or absence of food and nutrition security. In short, urban settlements come in many different shapes and capacities and so it is hard to generalize how best ensure a fresh food supply for a city.

As urban settlements grow in low and middle-income countries, rapid population growth follows from rural to urban migration. So cities require higher volumes of food to feed the growing population. But to house the new populations, food growing lands may be taken over for housing and services, meaning that these cities are constrained in supplying their own needs. Modern logistics and food transport hubs also take over lands used previously to grow foods, as do roads to transport large volumes of food daily into cities. To bring food from



Fresh Seafood Market Penang, Malaysia. 2015. Photograph: UNU-IIGH Photographic Library



the countryside becomes more expensive and involves more complex supply chains – distribution and logistics centres become corporatized and may not want the food from hundreds of small farmers preferring one or two large farms. This, in turn, leads to the loss of farmer livelihoods and fuels the rural to urban migration.

Meanwhile, as car ownership and usage grows in the cities with more affluent populations, fresh markets become an obstacle to the flow of commuter traffic and can be displaced in urban planning,

Opposite page:
S C Shekar *Daily Meal* 2011. Digital photograph

Daily meals served in Debbie Teoh's home in Subang Jaya, Selangor, may feature several simple nyonya dishes and rice. Unlike many working women in the city, Debbie still cooks at least two meals a day for her family.

Reproduced from *Our Land Within Passages through Southeast Asian Communities*. Liew Suet Fun. Photographs: SC Shekar. Published in Malaysia in 2011 by Beagle Books

or lost altogether. When fresh markets do survive, car access problems are often present, leading people to supermarkets and convenience stores and higher exposure to unhealthy food. What's more, fresh foods in these outlets can be more expensive than in the traditional fresh market. At the same time, women's employment patterns change in urban settlements and more women work outside of the home, sometimes with long commutes. They need food to be convenient, and in this context supermarkets and convenience stores are welcome, and these newly employed women can perhaps afford to shop in supermarkets. This, in turn, makes fresh markets less viable.

One lever for change is to be innovative about how to supply minimally processed and locally grown foods to households. This means safeguarding existing fresh markets, encouraging the establishment of new fresh markets and establishing businesses for mobile fresh food vendors. All of this requires urban planning support. It also requires the establishment of 'alternative'

food hub businesses which can 'represent' small farmers and get their produce to market in a safe and efficient way. These food hubs are gaining traction in high income countries to support small producers.

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SUNLIGHT AND THE VISUAL ENVIRONMENT

The sun symbolizes many things, across cultures and time, but essentially it symbolizes life itself. Symbols nourish us when the daily routine becomes too literal, but it is on the physical properties of the sun that we especially depend. It enables the ingenious process of photosynthesis that grows the green roofs and vegetable gardens spreading across cityscapes to counteract the effects of climate change and the urban heat island effect. Climate change is already impacting cities with more heatwaves, which are exacerbated by sprawling cities. Urbanites, especially the very young and the elderly, are those who will suffer more heat stress as heatwaves intensify.

Sunlight stimulates the production of Vitamin D, essential for healthy bones and muscles. And we know from suicide rates in the long dark winters of some countries, that the sun has a great impact on the spirit. Who doesn't get a lift from waking up to a bright sunny sky? The intensity of city life is occasionally relieved when you are able to gaze up at an open sunny sky and distract

oneself, or even dream.

But we don't all gaze or see in the same way. Charles Landry reminds us that the city is a sensory experience, with many views and many ways of viewing it. This experience affects our being in the city, and our well-being. The sense of 'seeing' the city is all important and it is the architect especially who has greatest input into the visual environment.

Will we accept the monochrome spread of grey asphalt as the de facto colour palette of our cities? As long as we allow the car to encroach on more and more space, then a gritty grey is here for good. But, wouldn't less grey and more green be preferable? Or multi-coloured streetscapes as in some Buenos Aires neighbourhoods? Or a sexy lipstick red BRT (Bus Rapid Transit) snaking proudly through the city, as the Transmilenio does in Bogota, its colour

Opposite page:
Apartment Block Toronto, Canada. 2013
Photograph: Marzena Wasikowska





chosen especially by the previous Mayor of Bogota to make bus riders feel proud of their transport mode. Why should status go to private car owners, he figured, as he boldly used mass transit and colour to restore pride, a sense of equality, and happiness to the city's residents.

And then there are the ubiquitous advertising hoardings. Hong Kong's Nathan Road and Tokyo's Akihabara are the extreme. The city perpetually communicates images and sells products to you. What does this mean for our psyche? And if advertising is often subliminal, what is happening without us even knowing it? Do corporations have the right to bombard us, to encroach, inch by inch, on ever more expansive spaces of our visual environment? Do we need to be sold something on a TV screen hooked to the back of the driver's seat as we ride in a taxi, or urinate in a trough with a screen

Opposite page:
Apartment View Melbourne, Australia. 2013
Photograph: Marzena Wasikowska

right in our face? Where and how can we pause for reflection, and collect ourselves in a fast-paced city if we are constantly bombarded by the imagery of the market?

And so, occasionally we shut down, withdraw in, or even retreat to our homes to re-energise.

Electricity, of course, has totally transformed the city. People's sense of safety at night, their nighttime entertainment (light facilitates the 24 hour city), and their ability to perform activities that once were only possible during the day, are all attributable to electricity. Night time festivals specifically use the interplay of light against buildings, set within the night sky's darkness, to entertain and inspire us (Sydney's Vivid lighting festival, for example).

And what of the energy-saving properties of LED lighting now being used to light cities, and even embedded in road surfaces to help cyclists avoid red lights? The "Green Wave", as it is known in Copenhagen, flashes on when a cyclist approaches. And what if

there was more lighting in Rio's favela's? Or in the dim alleys of a South African slum? Could lighting, used practically, and even whimsically, be deployed to reduce crime rates?

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QUALITY OF AIR AND WATER

In classical philosophy, air and water constitute two of the basic four elements (earth and fire being the others), which are believed to be the essential parts of all things. So, how did air and water come to be a threat to urban health? What went wrong? If air pollution is killing people, it must also be killing the planet, and vice versa. Why did we ever de-couple human health and planetary health, poorly imagining that they were not part of the same system? Lung cancer statistics in Beijing and soaring greenhouse gas emissions leading to global warming are a sad testament to our shortsightedness.

From the famous London fog of 1952 to the perpetual haze shrouding New Delhi and Beijing today, what have we learned about air pollution and how to control or mitigate its impact? Industrialization and the burning of liquid fuels to power the 20th

century answer to mobility – the automobile – have produced poor air quality that kills millions of people worldwide every year. Its egregious impact is now written into the design of many Western, especially North American and Australian cities, where low density suburbanization, ubiquitous road infrastructure, and minimal capacity for active transport (footpaths for walking, as well as cycling infrastructure) is the norm.

And, sadly this unhealthy urban design is now being written into the developing cities of Africa, and Southeast and South Asia, as they turn to the car. Cities bring together (concentrated populations of) strangers, as Jane Jacobs said, whose interdependence

Above right:
Preet and Hafiz Lian
Drawing #2 2015
(From the series, *Desolation*)
29.0 x 20.0 cm x 14
Ink on tracing paper

From the exhibition, *SURVIVAL!*
Health and Wellbeing in the Urban Cave
Penang. 2015

Opposite page:
Alley way Kuala Lumpur, Malaysia. 2015
UNU-IIGH Photographic Library





requires more than transport systems. These cities require industries, as well as power plants providing heat and energy, all of which produce their own emissions and add to poor air quality. Indoor air pollutants from fossil fuel powered cooking in some developing cities, poor quality gas cooktops and smoking indoors, pose another if lesser health risk.

And is everyone equally impacted? Environmental justice theories suggest not. Low-income neighborhoods and households are likely to have greater air pollution exposure. The poor who ride

Opposite page:
Air over Brooklyn New York, USA. 2014
UNU-IIGH Photographic Library

Right:
Liz Coats *Untitled #2* 2015
86.0 x 74.5 cm
Acrylic media on canvas

South East Coast Climate Adaptation Field Study, Digital Art Bank, Environment Studio SoA, ANU





Hi, View in KL on a good and bad day!!

Left: Tony Capon *Message* 2015. Teletransmitted digital photographs and text

buses without air-conditioning and open windows in Bangkok breathe in the toxic fumes emitted by the cars owned by the middle class, and for whom the transport system (car-dominated) is geared. Transport inequity means we don't all breathe the same air.

And what of water? From poisoned water supplies to thousands of diseased pigs floating down the river in Shanghai, are we still learning how to safeguard drinking and cooking water? It is clear that the built environment of cities impacts the flow of water and wastewater in a community. The three main challenges in planning the built environment are: too little water, too much water, and poor water quality. The greatest threat, however, according to UNESCO, is the finite nature of water resources on Earth, even disregarding for the impact of climate change. Climate change itself is already leading to permanent drought conditions in such places as the southwestern United States. Increased competition for water resources, and even conflict, is predicted as

the future unfolds.

And what of wastewater, especially in developing nations? Public sewers, septic tanks, cesspools or chemical toilets are all means to dispose of sewage. But are they equally available and affordable across the urban world?

Blue-Green cities offer some hope by bringing water management and green infrastructure together in cities, and reintroducing the natural water cycle into urban habitats. Urbanization in the 21st century is concentrated in coastal areas so the association between the sea and cities must be part of urban planning and dreaming. And, water in cities crucially provides recreation, drawing people together to swim, to play in the surf, and to frolic in lakes.

Urban blue space alleviates mental stress and fatigue. So why don't we dig up more long-buried streams cutting through cities, as the Mayor of Seoul did? Or build swimming pools in poor neighborhoods, where the TV is usually what entertains its



Above: Swimmer, Bondi Baths Sydney, NSW Australia. 2014. UNU-IIGH Photographic Library

residents and keeps them company too?

We are moving towards sustainability and the finite nature of petroleum bodes well for air quality at least. But what else must we imagine and do to pick up the momentum? After all, there is no city without clean water to drink and fresh air to breathe.

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NATURAL HERITAGE AND GREEN SPACE

From an evolutionary perspective, human lives, and their predecessors have been interwoven into the natural environment from the beginning. So, what is the state of the relationship between nature and humans in cities today, especially in terms of health and wellbeing? Moreover, is it an equal relationship? And how can we ensure that one does not suffer for the benefit of the other?

According to the biophilia hypothesis, humans have a tendency to affiliate with nature and there is ample evidence to confirm the physical and mental benefits we derive from it. But the challenge is to ensure that the natural heritage and green space of cities is not adversely impacted by the expanding human footprint of inexorable urbanization. Imagination and execution are already taking our cities in exciting, uplifting and healthy directions. Renovated

and repurposed freight lines have become green walking thoroughfares from New York to Sydney. Mexico City's Plan Verde is expanding its green roof cover. In Curitiba, Brazil, political will has sprouted greenery throughout the city, not only in large green parks, but also at a granular level, insinuating green spaces into small pockets of streetscapes. Research confirms this is the way to go. What is crucial is not quantity, but daily doses of nature scattered throughout the spaces where we live, work and play. So we need to find ways to infuse nature into dense urban fabrics, and preferably nature complexity, not more monochrome stretches of manicured lawn.

Traditionally, urban design has hewed to a particular, often artificial, urban form, rather than the biophysical processes as determinants of urban form. Unfortunately,

Opposite page:
Simfoni Lake Kuala Lumpur, Malaysia. 2015
 UNU-IIGH Photographic Library

Right:
 Preet and Hafiz Lian **Drawing #3** 2015
 (From the series, *Desolation*)
 29.0 x 20.0 cm x 14
 Ink on tracing paper

From the exhibition, *SURVIVAL!*
Health and Wellbeing in the Urban Cave
 Penang. 2015



then, there are countless examples of cities whose design and form are entirely mismatched to their regional climates. Is that what happens when you try to recreate Amsterdam, when your postcode says Dubai? We can try and grow tulips in the desert but must we always live another life? We are better off when we live in the here and now. Our health and mental wellbeing know that. But our cities haven't quite caught up with our hearts and minds.

Biophilic design shows us that contact with nature can be woven into cities in two ways: 1) by including natural elements such as plants, water, sunlight and natural materials, or 2) through vernacular or place-based design, which adheres to the ecology of a locality, e.g., Sydney Opera House with its sails referencing the harbour surrounding it. Contact with nature has a number of health benefits. It restores one's attention when fatigued and stressed, reduces stress and helps children to develop perceptual and expressive skills, and imagination. Community gardens are literally sprouting

across cityscapes as horizontal and vertical spaces¹ for people to grow vegetables, fruit etc. Besides providing improved access to fresh, wholesome food and helping people to build a sense of community, these gardens restore run-down neighbourhoods, become survival tools² and improve wellbeing.

Green spaces in cities yield important co-benefits too. They reduce air pollution, facilitate groundwater recharge, help to regulate the temperature, cool urban heat islands, reduce energy demand and provide cultural services including recreation, all contributing to the physical and mental

¹ <http://ecowatch.com/2015/03/10/vertical-farms-grow-food/>

<http://yagrein.blogspot.my/2011/09/multi-storey-vegetable-gardens-for-food.html>

² <http://www.cityfarmer.info/2014/03/11/urban-gardens-for-survival-in-harare-zimbabwe/>

<http://www.resilience.org/stories/2006-02-25/power-community-how-cuba-survived-peak-oil>

<http://survivethecomingcollapse.com/1171/urban-survival-gardening-after-disasters/>

health of the urban population.

The Lancet Commission on Planetary Health recently pointed out that across the world there are now more than 370 cities with declining populations. Herein lies an opportunity. What if local governments and constituencies infused these shrinking spaces with additional greenery, promoted food local production, and enhanced biodiversity? Besides the health and social benefits, such efforts may also help to halt and reverse population loss. Soothed by green space, we may have time to pause, reflect and summon greater clarity to imagine other, greener solutions.

Further Readings:

- 1 Berman, M. G., Jonides, J., & Kaplan, S. (2008). The Cognitive Benefits of Interacting with Nature. *Psychological Science*, 19 (12): 1207-12.
- 2 Velarde, M. D., Fry, G., & Tveit, M. (2007). Health Effects of Viewing Landscapes: Landscape Types in Environmental Psychology. *Urban Forestry and Urban Greening*, 6 (4): 199-212.
- 3 Elmqvist, T., Fragkia, M., Goodness, J., et al, (Eds). (2013). *Urbanization, biodiversity and ecosystem services: challenges and opportunities*. Netherlands: Springer.



Caitlyn Miller-Knight *Birds Eye* 2007
21.0 x 29.7 cm
Acrylic paint on paper
From *You will never get there by car* 2007

It's about seeing lots of bugs and footprints outside
The Art of Moving Field Study, Digital Art Bank,
Environment Studio, SoA, ANU



ACCESS TO HEALTH CARE SERVICES

The concentration of populations in urban areas requires many services to sustain human life, one of which is healthcare itself. Presumably, the denser the population, the greater the provision of healthcare services. But, provision does not equal access, nor does it ensure equity of access. If healthcare services are at our fingertips, why are they sometimes beyond our grasp? Or beyond the grasp of certain groups and specific disadvantaged pockets of cities?

Barriers of access to healthcare in cities are similar across countries, but some barriers are more pronounced than others

in certain countries, and in developing cities. The most significant barriers are related to coverage and cost. The overriding question here is “Can I afford to pay?” And, just as important, ‘Am I covered by a public program?’ And, if so, ‘Are the services I need included in the basket of goods and services offered by the program? Another salient barrier is transport, which enables individuals to access treatment. Disadvantaged groups tend to have lower rates of car ownership, which, in car-dependent cities especially, limits their access to healthcare services. The elderly



Opposite page:
Tan Zheng Yuen
Passion 2015
21.0 x 29.7 cm. Digital print

Light up a match in a fraction of a second. Time passes in split seconds without knowing it. Nowadays, people live in urban places and neglect to communicate with their family and friends. This is because they are busy earning money to live better lives. When suddenly they need someone's help, there is no one they can turn to.

From the exhibition, *SURVIVAL!*
Health and Wellbeing in the Urban Cave
Penang. 2015

Above right:
Preet and Hafiz Lian
Drawing #4 2015
(From the series, *Desolation*)
29.0 x 20.0 cm x 14
Ink on tracing paper

From the exhibition, *SURVIVAL!*
Health and Wellbeing in the Urban Cave
Penang. 2015

may be worried about transport safety and cost, and lone parents find it more difficult to arrange transport than do two-parent families. There are also organizational barriers within health institutions themselves which may lead, for example, to waits and delays in accessing care.

These barriers are on the supply side, but what affects people's access on the demand side? Cultural beliefs may also influence attempts to access care, as well as attitudes to care. For example, a UK study found that compared to white people, the language South Asians used to talk about their illness showed more passivity. And pregnant Chinese women were less likely to access antenatal care services because they didn't see them as necessary. Some women's groups may feel uncomfortable with the idea of visiting a male general practitioner.

But it would be simplistic to attribute differences in help-seeking behaviours to cultural attitudes alone. Locating easily accessible information about the availability of services affects some groups more than

others, especially those with low health literacy. Health literacy refers to those skills which determine an individual's motivation to access healthcare services, as well as their ability to understand and use that information. It may also be linked to actual language literacy problems.

An individual's social capital, as well as the stock of social capital within a community, is another factor. Individuals with high social capital gain information and advice about services from their networks. And communities with strong social capital tend to have more efficient, humane, and well-coordinated systems, according to US research.

Cities must also address the issue of inequitable access. Vulnerable groups include, for example, older people with functional limitations, those with mental disorders, migrants, and asylum seekers. These groups also tend to have poorer access to information and communications technologies. And what of the children in Eastern Ukraine or Syria today? The

Opposite page: S C Shekar *Exercise Facilities, Rifle Range Flats, Penang, Malaysia* 2015
Digital photograph

number of war zones around the world is not negligible but are we doing enough to coordinate better efforts to provide access to these, the most disadvantaged groups?

And finally, how is globalization affecting access? For example, WTO trade liberalization policies have made access to affordable drugs either very difficult or impossible in some developing countries. And rising inequality within countries means unequal access to healthcare especially in poor countries in Sub-Saharan Africa and West Asia where per capita income levels are lower than they were in the 1970s.

Further Readings:

- 1 Oliver, A., Mossailos, E. (2004). Equity of access to healthcare: outlining the foundations for action. *Journal of Epidemiology and Community Health*, 58:655-658.
- 2 Anderson, L. M., Scrimshaw, S. C., Fullilove, M. T., Fielding, J. E., Normand, J. (2003). Culturally competent healthcare systems: A systematic review. *American Journal of Preventive Medicine*, Vol. 24, Issue 3S, 68-79.



How can we ensure that all groups (children, the elderly, women, ethnic minorities, In-migrants from the countryside, etc.) within our cities are safe and secure? Need for safety, and the fear of terror, impact greatly on the design and management of our cities, increasingly under the ubiquitous ‘watchful eye’ of surveillance.

To be sure, there are an array of measures we can take to promote safety in workplaces, in homes, streets, parks, and the like, but safety is not just about protection from crime, or terror, or avoiding accidents. The urban experience, as Charles Landry points out, is a psychological one.

As such, safety is also about psychology and the mental paradigms within which we live in our city. Are we open and trusting? Or mentally cocooned to block out a dangerous world of radioactivity, terrorism, murderers, etc.? To live fully, to realize our best as individuals and collectively as great cities, we need to dream and then dare. As Landry cautions, if a city becomes too defensive, or over-cautious, then risk aversion and

disproportionate concerns about safety discourage people from exploring their cities, and their own possibilities. This exploration requires a trusting and open society; almost an infrastructure of trust. Countering this, though, is a whole risk industry (backed up by litigation in some countries) making us over-cautious, and media industry whose purpose seems to be to create fear and trivialize. Individuals and cities that embrace possibility, ideas, and better versions of themselves, rather than hunker down with fear and reality TV, are healthier, more alive, and happier.

On the practical side, pedestrians, especially children and the elderly, need to be able to walk in people-friendly neighbourhoods, free from the fear of being hit by cars, tripping on potholes or experiencing violence. Pedestrian refuges with raised and buffered islands will make walking safer and promote health and well-being. Walkable, cohesive communities report higher levels of safety and security. Bicycle lanes need to be protected from

traffic through raised barriers, planting, and curbs. Workplaces and the countless construction sites in rapidly growing cities such as Lagos, Shanghai, and Ho Chi Minh, need not only the infrastructure of safety, but the regulatory environment, freedom from corruption, and culture to back it up. But safety measures add to bottom line costs, and in fast growing countries, such as China, safety standards may fall behind the pace of development.

Beauty and quality infrastructure not only lift the spirit but contribute to the overall impression of safety. Extensive public art, custom-designed benches, and trash facilities ground us, but also provoke and inspire us when too many other messages tell us to withdraw and be fearful. Equally, the configuration of buildings can make us fearful, or draw us out of ourselves and encourage us to participate in public space. Well-placed lighting has the same impact.

Jane Jacobs knew that ‘eyes on the street’ constitute the best form of safety. Crowds are a natural form of surveillance, so why not

What would make this bridge safer for children - who cross it on the way to school? Kuala Lumpur Malaysia. 2015. Photograph: Uta Dietrich



design cultural policies which encourage night time use of the city in large numbers?

Consider the safety of the 3,000 children living on the streets of Ulan Bator, where it can drop to -52 degrees Celsius in winter. The fall of communism has exacerbated poverty, led to factory closures, higher unemployment, and pushed many children onto the icy streets. We have an obligation to protect them too, not just the children with roofs over their heads.

Further Readings:

- 1 CABE (2005). *What are We Scared of? The Value of Risk in Designing Public Space*. London. Retrieved from <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/files/what-are-we-scared-of.pdf>
- 2 Branscomb, L. M. (2006). Sustainable Cities: Safety and Security. *Transportation in Society*, 28, 225-234
- 3 NIOSH (National Institute for Occupational Safety and Health). (2009, June 17). The Business Value of Prevention Through Design. *PtD in Motion* no. 4: 2. Retrieved from http://www.cdc.gov/niosh/topics/ptd/pdfs/PtD-inMotion_Issue4.pdf.



URBAN REGENERATION

If any theme has appeared throughout these texts, it is that people should be at the centre of any intervention to build cities which promote health and well-being. According to the eco-social framework for understanding health, explained in the first section, 'The Global Picture', health has ecological, economic and social dimensions. If viewed as levers within a complex system, we can use these levers to have positive impacts on other areas within the system. For example, we can build bicycle lanes and attractive footpaths to facilitate mobility, reduce greenhouse gas emissions from cars, improve individual health, and promote social interaction in walkable neighbourhoods. The bicycle lanes and footpaths are designed for people first and foremost and fit the criteria of an eco-social framework of health. It may seem obvious that understanding people's behaviours, needs, wants, and feelings should be foremost in our minds, but history reveals that we have sometimes had other ends in mind (e.g., cities designed for cars).

If we agree that cities should and can make us healthier and happier, while minimizing the impact on the environment, then, we already have a 21st century mission statement for urbanization. As the world adds one million new residents to its cities on a weekly basis, there is a historical opportunity to see this mission statement materialize. And it is equally important that we apply this thinking to urban regeneration, not just urban growth.

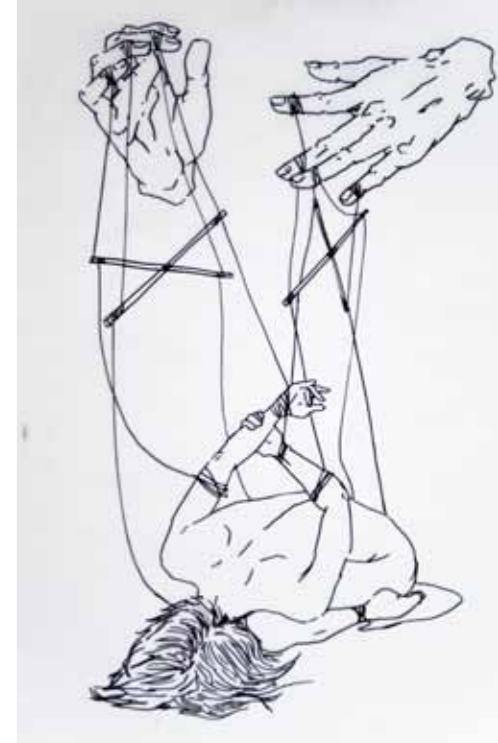
What is urban regeneration? Some would say it is gentrification for a privileged few. It sometimes is, but as the Urban Land Institute (ULI) argues, at its best, 'urban regeneration should better the physical, social, and economic fabric of a society'. In so doing, it can make us healthier and happier.

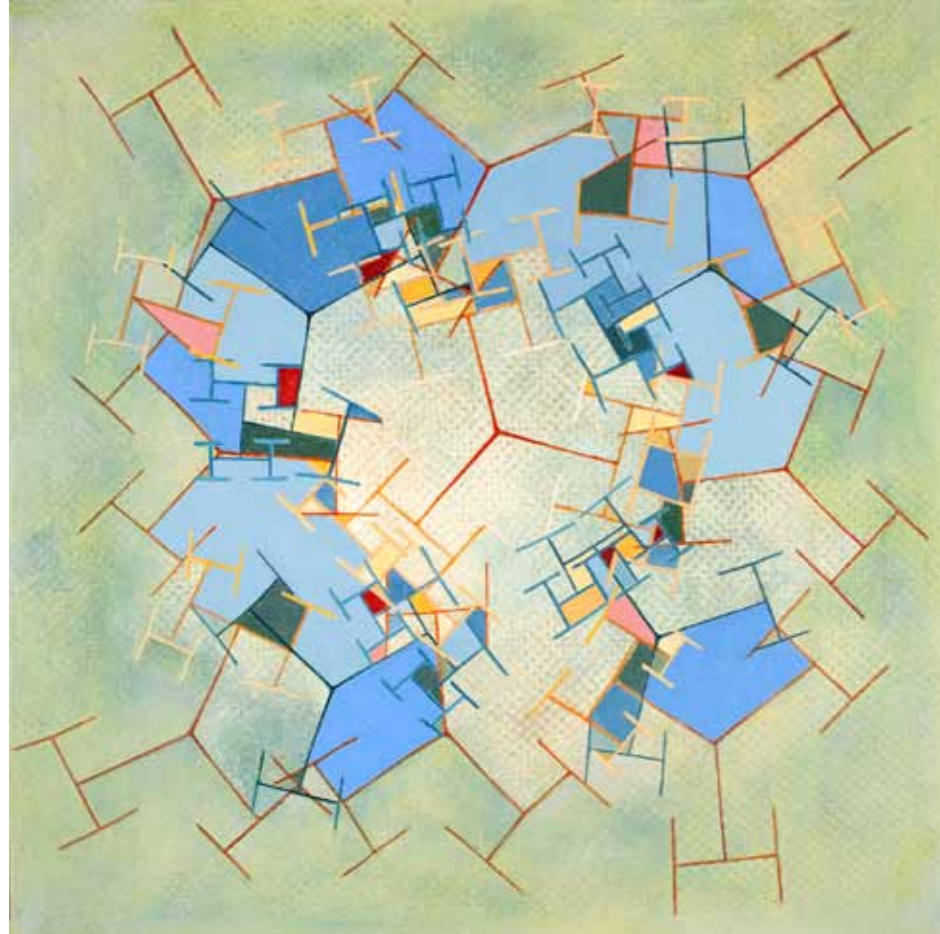
There are a number of physical, social, economic and environmental tools available to remake a city, correct past mistakes, challenge deficiencies, and to inspire, uplift and bring together its citizens in a common project for the betterment of everyone who

lives there. We need to act strategically, rather than transactionally, think how the city will look and feel tomorrow, not just in today's tourism campaigns. Access should be easy for people of all ages and abilities. Land use, street fronts, and the size of city blocks should all facilitate connectivity and community. Public spaces can be big but also small, and will only be good if they are usable. They should foster ownership so that the locals want to look after these spaces. People should be able to dance on them if they wish, as Shanghai's renowned groups of dancing dama (elderly women) do every night in the city, with their portable sound systems, or walk through them. In other

Above right:
Preet and Hafiz Lian *Drawing #5* 2015
(From the series, *Desolation*)
29.0 x 20.0 cm x 14
Ink on tracing paper

From the exhibition, *SURVIVAL!*
Health and Wellbeing in the Urban Cave
Penang, 2015





Kerry Shepherdson *Branching Out* 2010
60.0 x 60.0 cms
Acrylic on canvas

Branching growth patterns invade and divide the surface of the work, claiming space that alludes to the contest of land. The colours and forms reflect the disappearance of productive agricultural areas under the weight of urban development and the quest for contemporary human amenity.

The Contested Landscapes of Western Sydney Field Study, Digital Art Bank Environment Studio, SoA, ANU

words, public space must be active.

Ecological betterment should be a key outcome of all efforts. Locally-sourced and recycled green materials, solar heating and naturally cooled buildings reduce greenhouse emissions. And, the economic history of a city doesn't need to be repeated in its entirety. Clever cities rethink the economy of a certain place, and sometimes create growth clusters of similar enterprises which leverage on proximity, improve productivity, and add vibrancy and jobs. For example, Silicon Valley, or a street in Dhaka lined with fresh food markets. And sometimes it should be bottom-up, and then it will be more real. Shanghai's Tianzifang neighbourhood grew slowly and organically from a small artist's collective into a vibrant district with art spaces, retail, food outlets, entertainment, and housing.

Cultural heritage should be preserved, but its not just about buildings and materials. Worthwhile and enriching social traditions can be perpetuated. For example, the unique social capital in Shanghai's lilong

(lane houses) should be re-created in new housing developments. Industrial sites and land resources, such as a river, are physical, but, according to the way people use them, are also cultural.

As Landry shows us, lighting can be deployed with dramatic impact to regenerate neighbourhoods and spaces, to awe, inspire, and to make us safer. Cities must be connected from their sewers, to their transport networks, waterways, and neighbourhood blocks. And finally the city's residents must be connected within all these networks.

Demographic diversity is important, but also aesthetic and functional diversity. Different socio-economic groups in different spaces with mixed purposes and amenities and an element of surprise will help to keep monotony at bay. And long-tem residents should not be kicked out to make way for regeneration. Why do developers believe they can reproduce a city's vernacular architecture, fill it with high-end retail and restaurants, and pitch it to tourists

as 'authentic'? Without the people, there is no authenticity, no community, and no history. There is only consumption.

Finally, by bringing together diverse experts and constituencies (planners, entrepreneurs, architects, minority groups, developers, investors and academics) our ways of viewing, and hence, re-generating the city are multiplied. The chances of improving peoples' health and wellbeing will also be greater.

Further Readings:

- 1 Herzfeld, M. (2015). Heritage and the Right to the City: When Securing the Past Creates Insecurity in the Present. *Heritage & Society*, 8(1):3-23.
- 2 Ren, X. (2008). Forward to the Past: Historical Preservation in Globalizing Shanghai. *City & Community*, 7(1):23-43.
- 3 Esposito, A., et al. (2014). Heritage beyond the boundaries: a manifesto. *The Newsletter of the International Institute for Asian Studies*, 69:22-23.

POSTSCRIPT

Readers of THRIVE are encouraged to choose an image from the book, read any accompanying artist statement and think about the link to health and wellbeing in sustainable urban development. It is the creativity in each person considering the images emotionally and intellectually that in the lead up to Habitat III, the 3rd United Nations Conference on Housing and Sustainable Urban Development, may assist us to grasp the issues and look for solutions that will help people thrive in our cities.

ThriveUrban.info offers a platform to share your thoughts.

Pelita International School
Penang, Malaysia
A Bug's Life (Detail) 2015
15.0 x 10.0 x 4.0 cm
Overall dimensions: 15.0 x 200.0 x 4.0 cm
Wire

Minute yet magnificent

From the exhibition, *SURVIVAL!*
Health and Wellbeing in the Urban Cave
Penang, 2015. (See: photograph page 3)

