

20 50

DESIGNING OUR
TOMORROW

Guest-Edited by
CHRIS LUEBKEMAN



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ARCHITECTURAL DESIGN
July/August 2015

Profile
No 236

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Charles Jencks

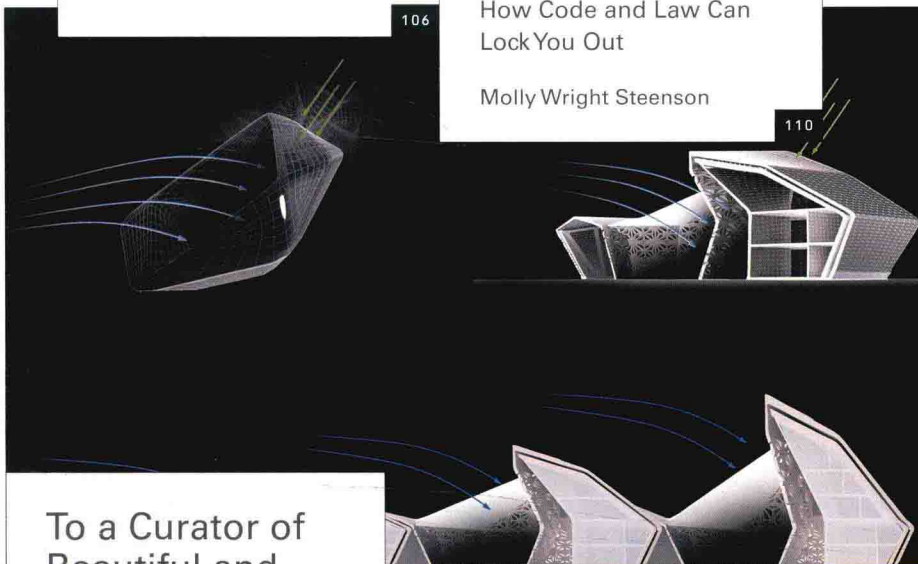
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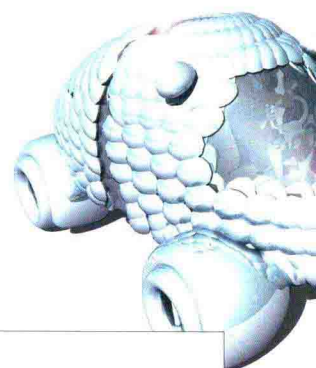
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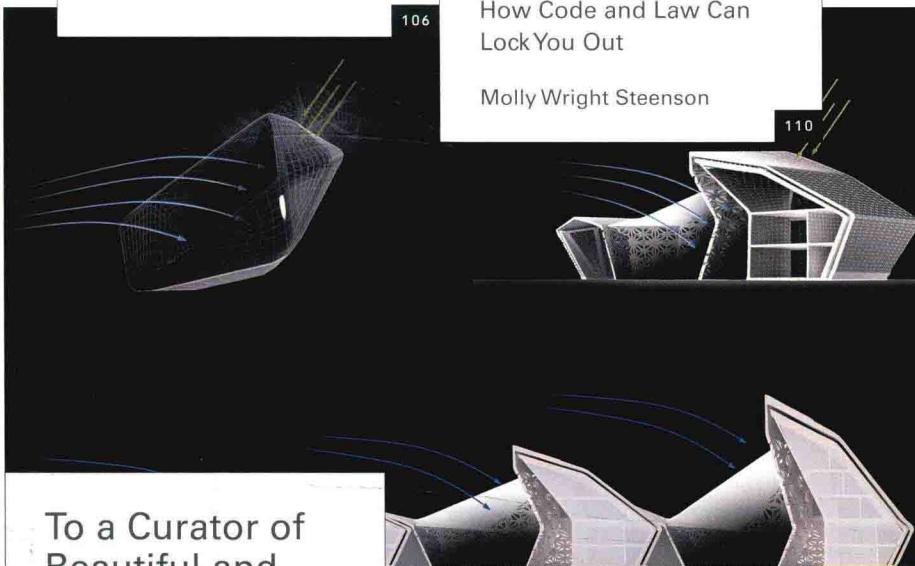
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New millennia are apocalyptic; turns of the century are epochal. Mid centuries, however, provide a quintessential focal point or Lydian stone. When in January 2000, for instance, Δ marked the turn of the new millennium with the *Millennium Architecture* issue, Charles Jencks drove the debate, in the shadow of the millennium bug and prophecies of Armageddon, by questioning the underlying worldview 2,000 years after Christ's birth, asking whether society was now fundamentally sacred or secular. The architecture of millennium projects, fuelled by the funding of the National Lottery in the UK, epitomised by the empty space and the vacuous curation of the Millennium Dome, were featured cheek by jowl with the newly built churches of Rome. In this issue, 2050 becomes a significant mark in the sand for future speculation. Guest-Editor Chris Luebke, engineer, architect, thought leader, upbeat visionary and Director for Global Foresight + Research + Innovation at Arup, puts his foot on the accelerator and pushes the fast-forward button. He asks us to project our minds 35 years forth and boldly imagine what might be the complex state and challenges in the hyper-urbanised, intensely populated world of tomorrow.

From our earliest conversations around this issue, Chris was adamant about the spirit in which it was to be realised. Despite the seemingly catastrophic future in which we are being propelled, which will most certainly be characterised by climate change, an increasing number of natural disasters, scarcity of resources, unprecedented population growth and greater inequality among people around the world, he insisted on an optimistic and constructive approach. In the introduction, he asks architects to face up to the seemingly cataclysmic realities that the next few decades hold, to apply their skills as problem-solvers, and 'to design places and spaces that not only empower people to survive in this world, but to thrive'. This is borne out by his invitation to influential design thinkers such as MoMA curator Paola Antonelli, eminent production designer Alex McDowell and CEO and President of IDEO Tim Brown, to commentate on the power of design to imagine and bring about effective change.

The vision of 2050 that emerges embraces today's reality: it is one that lacks the smooth slickness of previously utopian, modernist models. It captures a multiplicity of voices from a wide range of disciplines and regions. Within its pages it takes us from San Francisco to rural communities in China and Ethiopia, and the urban chaos of Brazil's favelas. It is as local as it is global. Key touching-points remain: an emphasis on the highly connected future that new technologies have ushered in, and a concern with sustainability and wellbeing. Architecture is rethought afresh, as architects become by turn implementers of robotic-designed constructions, hands-on self-builders and curators of environments that engineer wellbeing and beauty. What is apparent is that nothing can stand still and the resolve to tackle the challenges thrown at us by climate change, environmental damage and dwindling natural resources loom large on the horizon as pressing and unavoidable imperatives. Δ

EDITORIAL

HELEN CASTLE

Drivers of
Change cards

Chris Luebke led his team at Arup to produce and publish the Drivers of Change cards as a tool to help people and organisations have thoughtful conversations about the factors shaping our society. Each card presents a different issue, asks a provocative question, and uses succinct text and colourful infographics to spark robust debate among readers.



Chris Luebke

Innovation Workshop

TED Global

Edinburgh

2013



As a futurist and skilled facilitator, leading workshops is a powerful means for Chris to fulfil his mission of advocating for innovation. The TED community, which Chris has been deeply involved with for over a decade, often calls upon him to lead discussions aimed at reifying their most exciting ideas. At a workshop hosted by the Kauffman Foundation in 2013, Chris helps explore how the TED community can support entrepreneurship

Danish Maritime Forum
Closing Plenary

Copenhagen

October

2014



Chris fosters a culture of intellectual curiosity and creativity within his team at Arup and in all his outward-facing activities. Here he was invited by the Value Web to moderate a three-day event, which brought together international maritime industry leaders – José María Figueres (President of the Carbon War Room), Esben Poulsen (Chairman of AVRA International), Andreas Soehmen-Pao (CEO of BW Group) and Henrik O Madsen (Group President and CEO of DNV GL) – under the patronage of the Danish Royal Family and Government.

ABOUT THE
GUEST-EDITOR

CHRIS LUEBKEMAN

Chris Luebke has been described by *The Guardian* newspaper as the ‘Willy Wonka of the built environment, conjuring up dreams of a future where we can cure our ills through faith, physics and forethought’.¹ An unabashed and unapologetic optimist, he helps people and organisations pause to think about the world we are all co-creating. *Wallpaper** magazine cited him as one of the 10 future speculators and shapers ‘who will change the way we live’.²

Luebke spends half of his time travelling the world observing the faces and facets of change. He is an active participant in conferences ranging in scope from those of the Design Futures Council to TED and the World Economic Forum, is a popular keynote speaker on topics relating to the future, an agile facilitator of difficult conversations and an interactive panel member. He is fascinated by the world we live in and its infinite definitions of ‘normal’.

His curiosity is reflected in his varied formal education: geology and civil engineering at Vanderbilt University in Tennessee, structural engineering at Cornell and a doctorate from the School of Architecture at the ETH Zurich.

An Arup Fellow and the company’s Director for Global Foresight + Research + Innovation (a group he helped create), Luebke proudly leads a global team that facilitates conversations about how to best embrace change and its effects on the built environment. In *Drivers of Change* (Prestel, 2009), with the Foresight team he looked at the most important factors that would/will affect our world, arranged in a framework known as STEEP (social, technological, economic, environmental and political). Designed as a collection of notecards, the book provided a tool for developing business strategy, brainstorming and education, or simply to think creatively and holistically. The aim was to encourage deeper consideration of the forces driving global change and the role that individuals can play in creating a more sustainable future.

Luebke believes the future is a story that each of us participates in writing every day. He encourages us all to dig in because it is only when tomorrow transitions to yesterday that we will have the clarity of hindsight to know what the future really was. ▴

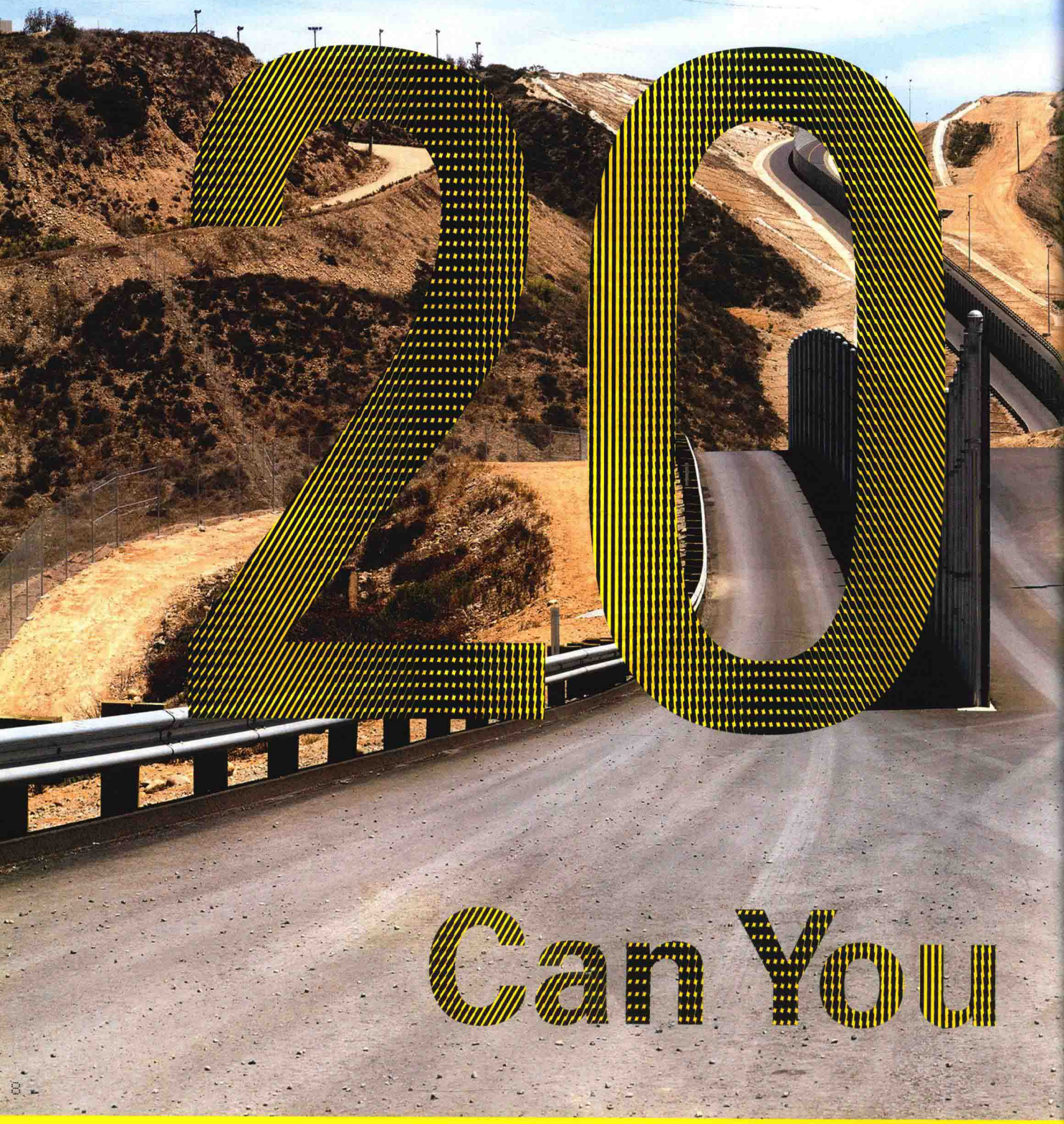
This issue would not have been possible without the patience, diligence, perseverance and unwavering support of Radha Mistry. Thank you.

Notes

1. Stephen Armstrong, ‘The Futurist’, *Guardian Magazine*, 24 September 2005, p 1: www.theguardian.com/science/2005/sep/24/comment.comment.
2. Claire Dowdy, ‘ALL CHANGE: Ten Who Will Change the Way We Live’, *Wallpaper**, July/August 2002, p 31.

INTRODUCTION

CHRIS LUEBKEMAN



Can You

David Taylor

Built Up

Goat Canyon

US-Mexico border

Tijuana-San Ysidro

2009

Walls are built for many reasons. They can be virtual or physical. The canyon was a conduit for thousands who were searching desperately for a better tomorrow. It was terraformed by the Army Corps of Engineers to allow for easier border surveillance and enforcement. Rather than identifying ourselves as simply belonging to a nation, separated by physical borders, we must embrace the idea of global citizenship.



The future is fiction. It is the story each one of us is actively writing every day of our lives. The storyline is bound by that which we are all humbly aware waits for no one and nothing: time. It is the singular constant that, at least at this point, cannot be manipulated. Everything else is 'on the table'. To consider what our world will be like 35 years hence is an exercise of conjecture. Yet, just as a beams of light can illuminate our way ahead, consideration of global trends can help us discern where paths converge and point us towards some constructive conclusions.

Our world is a complex place. It is a chaotic cacophony of interacting and intersecting systems. In order to determine some intrinsic order of these systems we need to view them through five distinct lenses: social, technological, environmental, economic and political (otherwise known as STEEP). The challenges of the hyper-urbanised world of 2050 will have an ever-increasing velocity, veracity and complexity. The frameworks and solutions that have worked so well for us for the past 200 years will no longer be sufficient to serve us. And, just as a good therapist will ask a patient to face his or her issues head on, we need to look the complexity before us squarely in the eye and name it, so that we can set about the work of dealing with it.



Steve McCurry

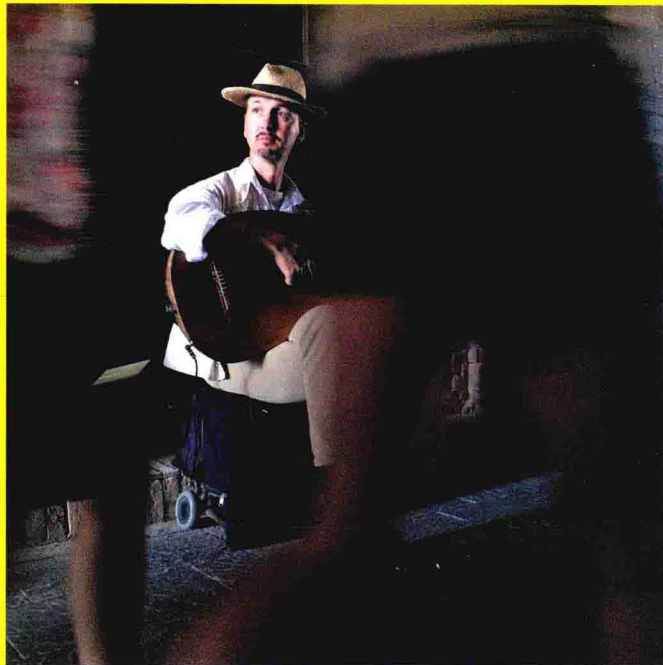
Man at the Red Cross hospital reads to a boy

Kandahar

Afghanistan

1985

A photo full of rich stories. The trans-generational exchange, the beauty of two humans connecting, the joy on their faces and the terrible physical loss of each. Our will – our indomitable spirit – will carry us into whatever the future holds.



Elizabeth Gill Lui

Stop and Hear the Music

Dorsoduro

Venice

2014

We are part of everything happening, as well as part of what the future holds, even if we are contemplative and static amid the dynamic chaos around us. As the English poet and Church of England cleric John Donne (1572–1631) said: 'No man is an island.'

No man is an island.

— John Donne (1572–1631)



Facing the Facts

It is time to get brutally honest about where we stand. Yet, no one enjoys bad news. We naturally want to ignore the challenges of overpopulation and species degradation, of our oceans turning acidic, and the true price to our global civilisation of the Grand Canyon-sized wealth gap. These challenges, which are very real today, can be overwhelming and are easy to ignore for those not used to dealing with complexity.

But behold the architect. The very practice of architecture demands a synthesis of right- and left-brain thinking. Architects are the ultimate problem solvers, trained specifically to deal with and negotiate complexity through design. Daily they juggle into balance human emotions, physical constraints, environmental assaults, climate impacts, political frameworks and beleaguered budgets. This uniquely positions them to truly tackle so many of the problems facing the planet.

To help do my part as a futurist, I believe there is great benefit in looking at our systems separately, through the STEEP lenses, so that we can appreciate their interaction in our own minds and practice. At the end of the day, our goal is to design places and spaces that not only empower people to survive in this world, but to thrive. As we do this, we cannot gate ourselves from the things we do not like. This 1950s attitude simply will no longer cut it.

Steve McCurry

Women bathing at the Teej Festival

Kathmandu

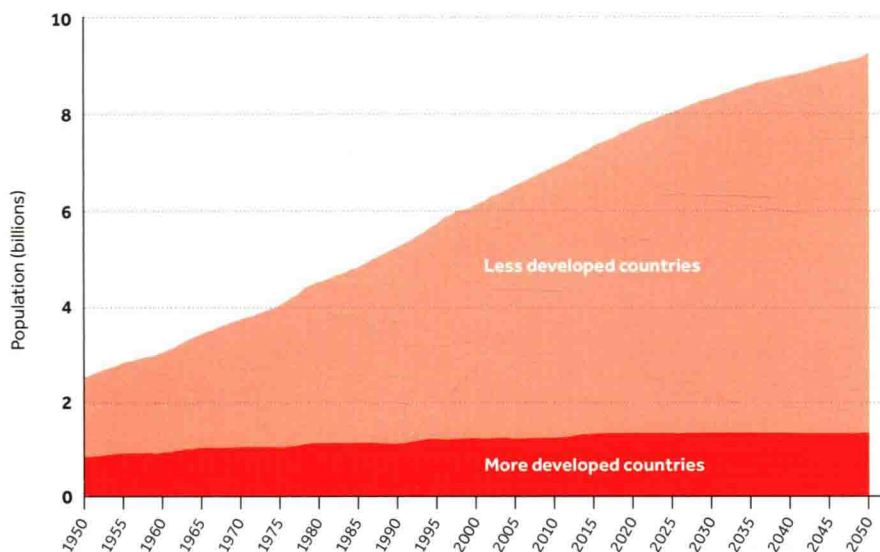
Nepal

1984

In the end it is love we should always focus on. It is a wondrous, joyous amalgam that binds us all together on this slowly turning planet we call home.

Our goal is to design places and spaces that not only empower people to survive in this world, but to thrive

Global population projection, 1950–2050



Nothing about the future of humanity on the planet is guaranteed. If we continue to proliferate as expected, then the United Nations Population Division published this graph as the projection for the population.

Source

United Nations Department of Economic and Social Affairs Population Division, *World Population Prospects: The 2008 Revision*, United Nations (New York), 2009: www.un.org/esa/population/publications/wpp2008/wpp2008_highlights.pdf

Global Citizenship

Indeed, we need to broaden our definition of ‘citizenship’. As a child in grade school, along with every other American child in public schools in the early 1960s, I recited, hand over heart and en masse, the Pledge of Allegiance at the beginning of every day. It was a narrow view – my citizenship clearly ended at my national boundary. Now we must extend this pledge to make citizenship a global idea. It needs to be understood as a responsibility to the ever-increasing number of our fellow world citizens, and even further, an obligation to the planet itself.

True, cancer and viruses like Ebola are fighting back, but if we assume that nature does not overcome the current pace of human behaviour, we will have a planet in 2050 with a significantly increased population. How significant? When I was born in 1961, I had about three billion neighbours. We are on track to hit nine billion by 2050. For a planet that has not grown a smidge in size, a tripling in just shy of 100 years brings into sharp focus the earth’s carrying capacity or the maximum population it can sustain. Will there be a meaningful existence for all those nine billion beings? I hope so.

The world’s population will be older in 2050, a by-product of advances in medicine and changing birth rates. Certain countries are getting younger,¹ with women bringing up to eight babies into the world, whereas many others are getting older² with a birth rate too low to sustain the current population. A peek behind the scenes of any business will tell you that a society needs young people to do work. Eighty-year-olds do not make for vibrant stock clerks or construction labourers. Where there are young people, so goes the work and money quickly follows. Thanks to Deng Xiaoping’s One Child policy introduced in 1978, China has many more elderly today than ever before as a proportion of its total population. Population pyramids give us a very clear picture of the shape of a society, a nation, a region or a city. They help us understand the context of the infrastructure a society needs while telling us of future human migration patterns. Do you know if your city, region or nation is getting younger or older? Have you thought about the impact on your neighbourhood of the changing shape of the pyramid?

Inclusion

All young people are not treated equally today. As we look forward to 2050, global citizenry must help girls get into, and stay, in school longer. This is the keystone to all other issues. When women are empowered, many other systems (the economy, politics, social structure, even the environment) are impacted in a positive way, and for generations. Educated girls start micro-businesses and learn to manage money. They put food on the table, make sure children are in school and create more stable communities. They are, and will be, the backbone of a strong global community.

With both male and female members of society equally educated in every part of the world, our environment stands to benefit. It will need it. Our lifestyle is killing the other inhabitants of our planet at an alarming rate. We have lost 76 per cent of the freshwater species since 1970.³ Our lifestyle is also killing us. Air pollution from stoves, cars, fires and factories and small engines is a prime culprit. We can absolutely do something about air quality starting today in the same way that we did something about fluorocarbons in the 1970s.