

# **RUN\_CRAWL\_FIGHT: Urban Abandonment or Ramparts in the Face of Climate Change**

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## **Abstract**

**Society suffers from a tendency towards maintaining the status quo, catering to the politically possible, and a seeming inability to invest in ideas and projects that will produce long-term sustainability. This leaves us with a design deficit in which climate consequences of the Anthropocene are projected and accepted by science yet debated and sometimes entirely ignored by politics and policy. Radical and creative strategies for sustainability and adaptation strategies at the scale of cities are left to futurists, visionaries, and inventors often dismissed as outliers or just plain crazy.**

**How can we learn to make urban design choices that will bear fruit in the long term rather than merely serve immediate political and other valid but short-term needs? Perhaps we can start by discussing the adaptability of our cities in stark but abstracted terms using similar yet unfamiliar challenges to allow for a focus on the creativity and design of adaptation instead of political and financial impossibilities.**

**This ongoing research proposes categorization of municipal-level adaptation design for entire cities based on a variety of threats from rising sea level to social and political instability. Using the pole-shift mapping of Gordon-Michael Scallion and others as a provocation for discussion and stand-in for drastic climate change scenarios, a much-needed new approach to tackling the design and redesign of cities may be possible.**

## **Introduction**

This paper examines both local and global adaptation to environmental threats at the scale of cities. The aim is to provide comparative analysis of proposed adaptive methods as they relate to a variety of urban forms (dense core/suburb, megalopolis, formal/informal, low density, etc.) and thus predict likely outcomes and propose alternatives. Such a framework is intended to produce both new ideas and a renewed starting point for stilted and stagnant conversations about the needed adaptation of cities facing sea level rise and other threats. It may be necessary to consider abandonment, restructuring, or scattering of key global cities and their populations within the next century. How can we plan for and design this deurbanization and reurbanization process when our cultural norms and political processes do not allow debate around the real consequences of climate change?

Long-term thinkers include the pragmatic, the cautious, and the bold, not least the futurists whose proposals may appear ridiculous in the face of serious and immediate threats from climate change. Amongst them is Gordon-Michael Scallion, whose widely dismissed pole-shift theories contend a meteor strike, global warming, or even nuclear power or other technological misuse might drastically change the nature of life on Earth.

The reshaping of earth's water-to-land ratio and other consequences of pole-shift theories [Fig. 1] do not align with common, accepted science of climate change. However, proposing design solutions to address these consequences provide a level of abstraction from entrenched political positions and recognized climate adaptation challenges that may provide lessons for those

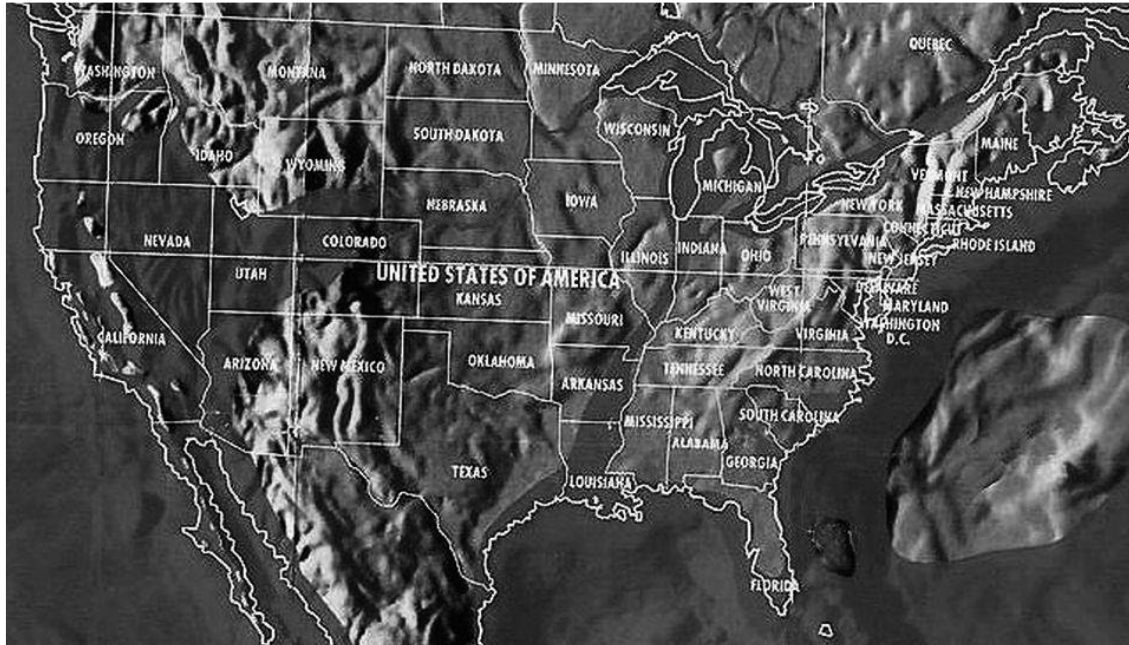


Figure 1. Scallion’s pole-shift maps predict drastic coastline and inland changes across the globe. Matrix Institute.

who will design the cities of the future, whether they are built in defiance of change, in harmony with climate shifts, or reconceived altogether into new patterns of urban form. Imagining the world reshaped by drastic geological events may inspire tales of science fiction, yet could also yield creative solutions for the making of cities in the 22nd century and beyond.

NASA has...created an Asteroid watch website with detailed listings of discovered objects as well as a detailed impact risk chart which lists the year 2020 as the earliest increased activity risk<sup>1</sup>.

—Jim Dobson, *Forbes*

It is also critical to consider the cross-border cultural and political traditions that shape our cities and daily lives when imagining the necessary fortification or relocation of major metropolitan areas and in particular those which anchor their subcultural region [Fig. 2]. Whether a city has nearby allies, and whether populations can easily absorb into adjacent states are factors demanding equal consideration when determining the possible fate of cities and the designs that will accommodate their demise, transformation, or rebirth. This is not merely a concern of small countries, but also of the “nations” within larger countries, particularly as the pressures of climate change test alliances and force triage decision-making.

Whether using pole-shift mapping or accepted climate science, threats to current coastlines and the disproportionate urbanization and global population along them is a common challenge.

It is estimated that in 2060 around 1.4 billion people will be living in low elevation coastal zones at elevations of no more than 10 metres above sea level.<sup>2</sup>

—Dr. Hermann W. Bange,  
*World Ocean Review*

These threats will eventually force myriad responses unique to each city and circumstance, but are categorized here broadly as RUN, CRAWL, FIGHT, and ABSORB.

## **RUN**

### *New Orleans, Tokyo, Manila*

Time has run out. Whether faced with immediate or pending short-term threats, even cultural importance and economic strength cannot save these cities.

In response to immediate threats and present disasters, the only solution is to RUN. Further, there are no associated inland locations suitable for reinterpretation or rebuilding in similar form; their culture and established ways of life cannot be maintained when layered upon existing inland populations and settlement



Figure 2. The United States' true borders recognize both cultural and political traditions across state and national lines. American Nations<sup>3</sup>.

patterns. The result is dispersion and assimilation into other cities, countries, and societies.

Even in the richest countries on the planet, increasing disasters everywhere will negate the use of disproportionate resources to save small and economically less significant metropolitan areas such as New Orleans. Despite lessons learned from flooding and recovery following Hurricane Katrina, sea level rise will occur too quickly and the response needed will come too late. New Orleans, relating culturally more to the Gulf South and Caribbean than its own state, and with a natural retreat to Acadiana (SW Louisiana) made impossible by its concurrent inundation, the city's cultural treasures will be forced to scatter, never reforming in any manner that would be recognizable to its inhabitants. Rogue factions will stay to both defend and exploit the city in its final decades, leading to semi-urban fiefdoms outside traditional controls, much like the city's current batture developments. But in time, assuredly the Crescent City will be no more.

### **CRAWL**

*Shanghai, Beijing, Los Angeles, Seattle*

Too populous and important to abandon, but too difficult and resource-intensive to save, these cities must begin to move as soon as possible, managing nearly impossible rolling economic challenges including schemes to maintain cultural and physical assets [Fig. 3].

This fate assumes cities enjoy access to ground on which to retreat, given current land control or military power to facilitate the reconstitution of cities further inland and at higher elevations.

Shanghai reimagined inland would likely follow the urban development patterns of its most recently developed district, Pudong, losing the historic scale and architectural assets of the French Concession and the Bund. The need to name a "New Shanghai" would be done symbolically, as this new city would not appear markedly different than a number of other Chinese megalopolises already built in the 21st century. However, it is the importance of the name of such cities, their history, and projection of power that would save them, leading an

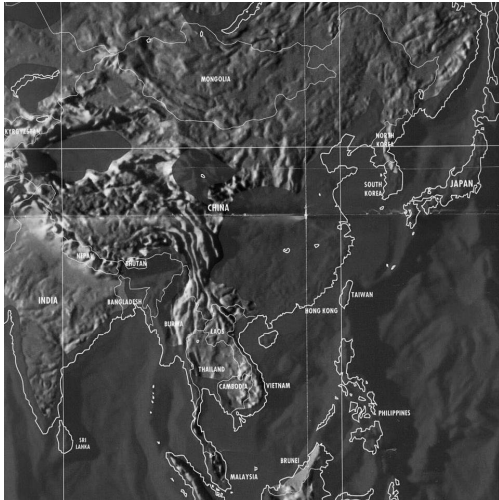


Figure 3. Scallion's pole-shift map of Asia shows a drastic impact on populous China. Matrix Insitute.

economic powerhouse such as China to seriously consider the wild possibility of relocating, at least in name, this old river and port city. The subculture of Shanghainese, and its reputation as one of the first Chinese cities to open to global commerce in the current political era, would strengthen the case to save – by reconstitution – Shanghai.

Apart from babies, the term “crawl” is often used pejoratively, indicating a slow retreat, a slog at ground level, humbled by given circumstances. Once proud megacities must crawl not because running is disproportionate to the threat, but because their size and importance make it an impossibility. How do you move a megacity? Very slowly.

Leaders, too, must humble themselves and begin the shift long before imminent threats appear. Indonesia has famously announced the relocation of its capital from Jakarta to Borneo<sup>4</sup>. This effort will not relocate the entire city, and will lead to significant challenges elsewhere<sup>5</sup>, but represents one of the first major efforts to crawl to safety.

**FIGHT**

*New York, Mumbai, Cape Town, Rio de Janeiro*

Global leaders within strong countries that have the land and resources to maintain economic

advantage will invent, design, and implement unique systems of defense for cities under distinct threat but in close proximity to other cities and resources. Such a response becomes relevant when regional dominance is exerted, political boundaries prevent free movement, and resources necessary to support ongoing human life are collocated or nearby. Unmoved, these cities may become islands or isthmuses but will be saved for their role as trade juggernauts, cultural centers, and ultimately as symbols of the human will to survive.

New York is already undertaking early versions of this work in the wake of Hurricane Sandy, and will continue to build the ramparts necessary to remain a global leader in commerce. Such cities will necessarily make difficult decisions to prioritize what can be saved in the long term and what must be abandoned in order to survive. While this will cause economic disruption, urban form will largely be preserved with increased density required in the safest development zones. New York will remain relevant whether using the latest technological advances or ancient dikes.

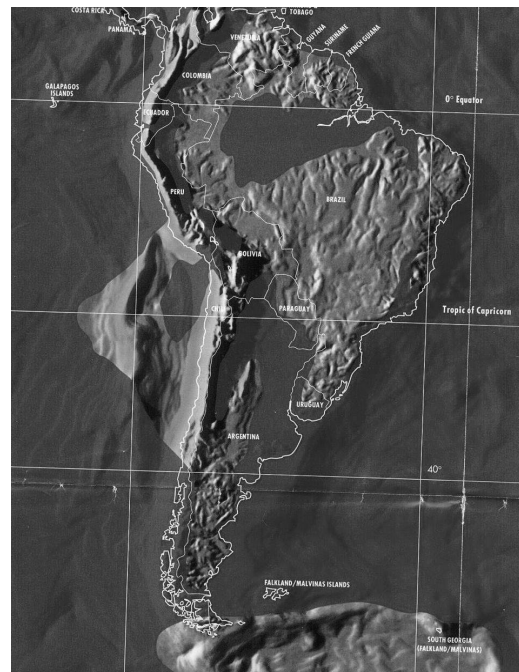


Figure 4. South America following Scallion's predicted pole shift. Matrix Insitute.

## ABSORB

*Dallas, Mexico City, Bogota, New Delhi, Madrid, São Paolo*

Cities lucky enough to survive both immediate and longer-term climate threats will suffer from the intense pressures of climate migration, but have the opportunity to lead a new global paradigm as powerful city-states, or from within countries that manage to remain politically contiguous despite overwhelming challenges and destabilizing fissures. [Fig 4]

Building on the strength of traditional urban design and the ability to innovate and construct at the fringes will result in donut megalopolises with historic cores, suburban rings, and high density exurban nodes designed as self-sufficient, zero carbon mini-cities. Located within trading and transit distance from established cities, these nodes will benefit from building upon established populations and economies despite the challenges of absorbing large migrant populations.

## Next

*Breaking the Logjam*

These broad categorizations provide a starter language for communication in designing the abandonment of or building of ramparts around our coastal cities in an age of extreme climate change. Recognizing the limitation of oversimplified categorization, design analysis must also understand the nature of local threats as compared to other locations, learning from cities of similar geography (sinking soils, river delta), while recognizing social and other factors that might negate assumed likenesses (homogenous populations, unstable governments, hostile neighbors).

Solutions for future urbanization must be explored through analysis of varied adaptation methods currently proposed or enacted by cities across the globe, from sinking Jakarta to building from scratch in Neom. Futurist predictions from the prescient to the outlandish may serve as useful abstractions to spur creativity and envision action. Yet any subsequent analysis should use context and precedents including existing plans, resource availability, sea level rise, and other inputs to imagine and model alternate outcomes of global migration and resettlement; these must be examined in comparison with more likely modest changes, as both scientific and creative approaches are necessary to ensure we find new

ways to occupy what might be a radically changed landscape.

Even the most progressive and wealthy democratic nations struggle to withstand short-term financial burdens towards the goal of long-term sustainability. Designs needed to solve the problems of one generation are left to the next or ignored entirely. As the scale of challenges to human survival compound exponentially without response, opportunities to design a realistic urbanized future pass us by. Radical and creative strategies for sustainability and adaptation at the scale of cities should be undertaken now, far in advance of predicted doomsday scenarios by Scallion and his ilk, especially as they appear more possible by the day.

Using radical proposals as an abstraction may lead to actionable outcomes because they provide an indisputable starting point from which to discuss possible solutions, breaking political logjams. The run/crawl/fight framework aims to spur creative problem solving in search of new ideas, and more importantly new entry points for collaborative work on solutions for the now inevitable changes that current climate adaptation strategies for cities will fail to address by orders of magnitude.

## Endnotes

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3. Colin Woodard, *American Nations: A History of the Eleven Rival Regional Cultures of North America*, Viking, 2011.
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