

# It's time to reimagine how life is organized on Earth...

...Connectivity, not geography, is destiny.

# The Global Connectivity Revolution

**Skeletal System** 

**Transportation** 

Highways, railways, bridges, tunnels, airports, seaports

#### **Vascular System**

**Energy** 

Oil & gas pipelines and refineries, electricity grids and power plants

#### **Nervous System**

**Communication** 

Internet cables, satellites, data centers



The Infrastructural Matrix: Exoskeleton on the Planetary Body

# Connectivity: The Most Revolutionary Force of the 21st Century

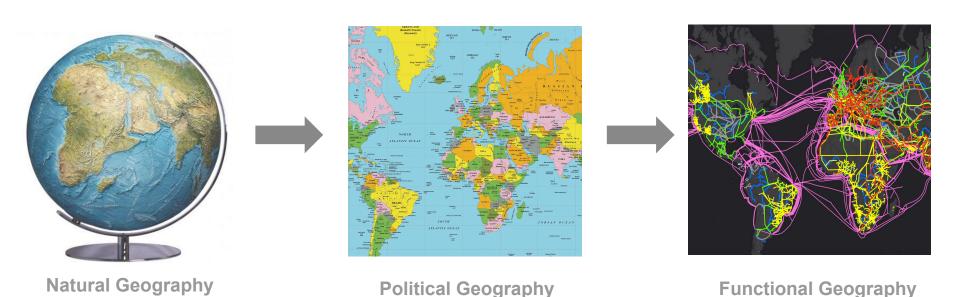


"Geography is destiny"
Is this ancient adage
obsolete?

Arc of History
Connectivity as
meta-pattern

Paradigm Shift: Connectivity > Division

# **Cartographic Evolution**



"What we build today will last centuries." - Santiago Calatrava

#### **Bridges to Everywhere: Infrastructure Growth**

#### 19th and early 20th Centuries

American phase: Industrial revolution to World War I

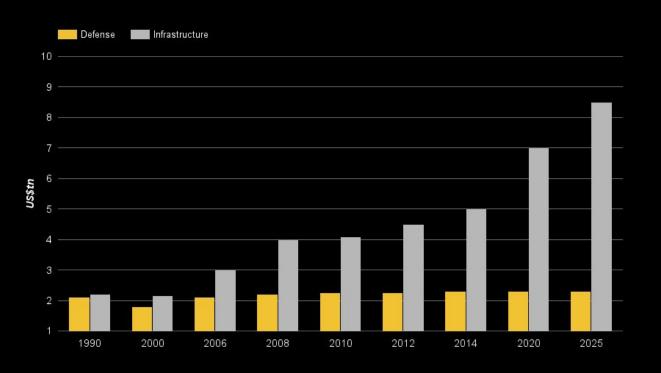
**Great Wars and Resurrection** 

European phase: Keynes to Wirtschaftswunder

#### Rise of the East

Asian Tigers to China & Asian Infrastructure Investment Bank (AIIB)

# Roads to the Future: Infrastructure Spending



We will build more infrastructure in the next 40 years than in the past 4000.

We should spend \$1 trillion on the basic infrastructure needs of every 1 billion people.

# From Westphalian World (1648) to Supply Chain World (1989)

End of the Cold War



**Capital Market Expansion** 



**Deregulation and Privatization** 



Infrastructure Build-out



**Communications Revolution** 

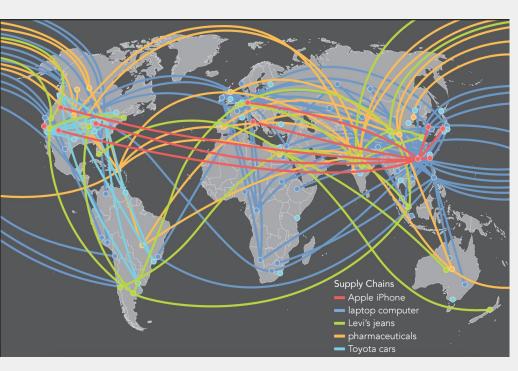


**Total Globalization** 



- Treaty of Westphalia (1648) to Fall of the Berlin Wall (1989)
- 1989: World Wide Web (WWW)
- Supply chains are the original World Wide Webs: Not things but a global system of transactions

# The Most Powerful Law of History: Supply and Demand



Trading atoms and bits: "Where" are complex global value chains? Things are "Made Everywhere"

#### **Towards the Supply Chain World:**

Free markets (Adam Smith)



Comparative advantage (David Ricardo)



Division of labor (Émile Durkheim)



IoT/Big Data/AI (Ray Kurzweil)



"Perfect Capitalism" (Michio Kaku)

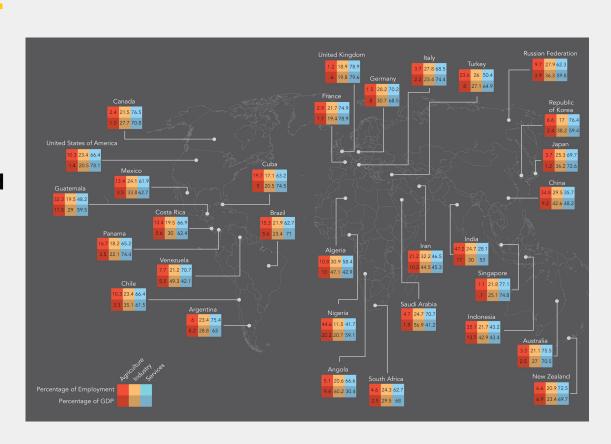
- Supply of anything can meet demand for anything
- Perpetual optimization of land, labor & capital for production
- Inefficiency is the enemy
- Connectivity is a currency of power

#### What circuit do you belong to?

International circuits over nationality (Sassen):
Manufacturing, energy, finance, technology

Synchronized industries rise and fall in tandem: Financial crisis (2008), manufacturing demand shock (2009), commodities collapse (2014)

**The circuit as identity:** Networks of professional belonging - and mobility



# The Independent Republic of the Supply Chain

#### **Connectivity:**

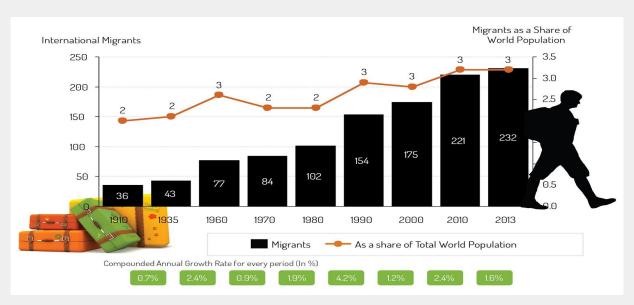
A human impulse



**Urbanization:** A proxy for the search for connectivity

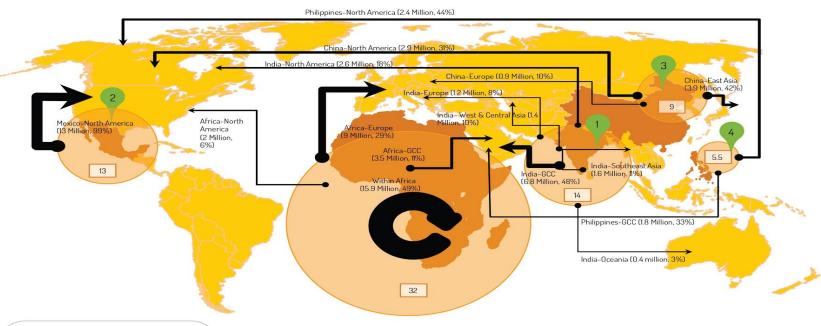


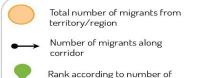
**Global Migrant Horde:** Expats, refugees, laborers, students



More than one billion border crossings per year and rising fast

### **Migration Routes and Remittances**





emigrants

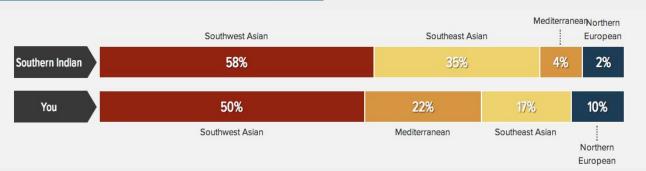
- Mobility as a human right
- Enabling permanent migrants: Global visa/passport
- Global citizens and citizenship arbitrage

#### The Great Genetic Dilution

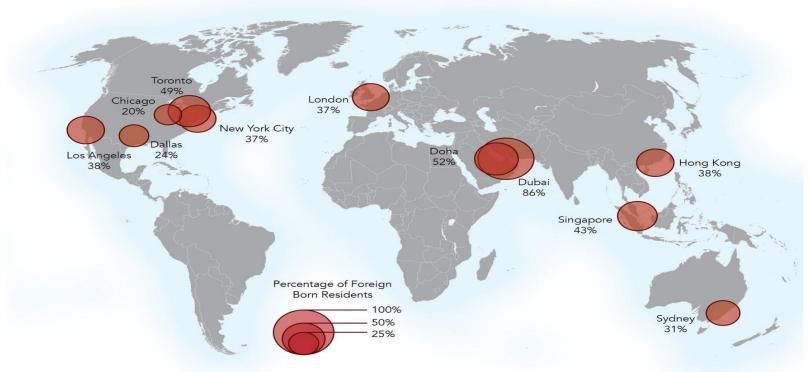


NatGeo's *Genotype 2.0* Project: 60,000 years of genetic collisions

- "Demography is destiny": Toward a global mongrel civilization
- **Europe's ironic fate:** End of the nation-state and the assimilation imperative
- China: Imperial nation-state and global dilution

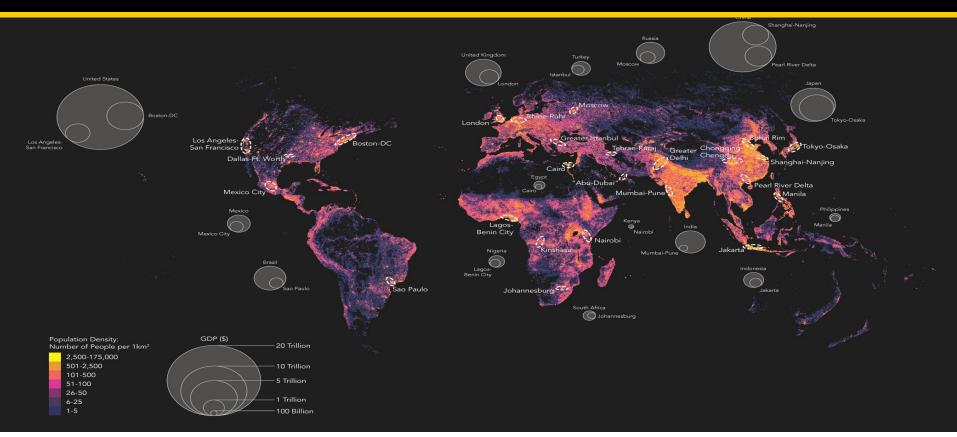


# **All Great Global Cities are Melting Pots**

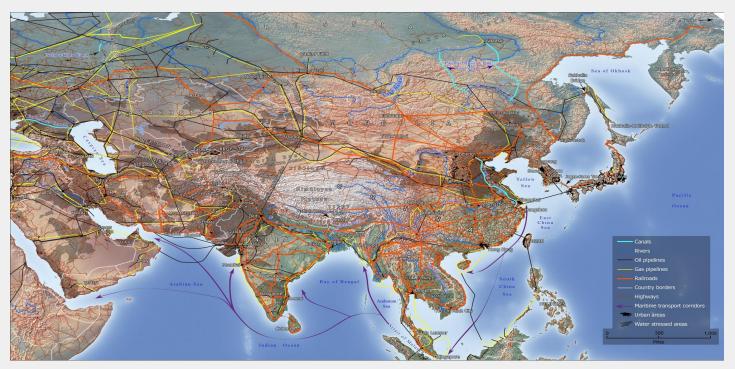


- > Racial Mingling: Ch-Indians (Singapore), Indi-Pinos (Dubai)
- > From Nationalism to Civicism: Cumulative not exclusive identities

# Planetary Urbanization: Megacity Archipelagos Define Humanity



#### **East Meets West: Eurasia's Iron Silk Roads**



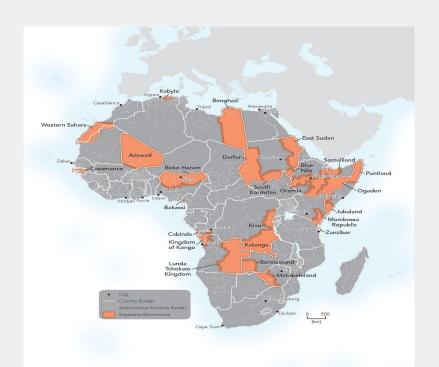
- > AllB and the Compression of Eurasian Space: China Becomes a Two-Ocean Power
- "Iron Silk Roads" win the "New Great Game" (over Iran)
- > Infrastructure as extended sovereignty: Scenic and resource-rich passageways: "Sino-Siberia," "Mine-Golia", "Stans", NK

#### **Pax Aseana:** How to Grow From Billions to Trillions



#### Africa: From Devolution to Pax Africana

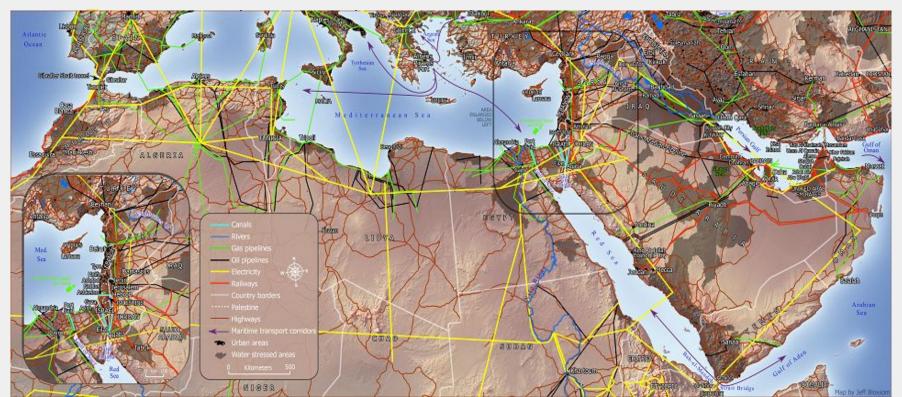
- Secessionism and devolution: More states to come?
- Aggregation in sub-regions: East Africa as the continent's "Benalux"
- > Pan-African connectivity: Continental infrastructure, free trade, open migration





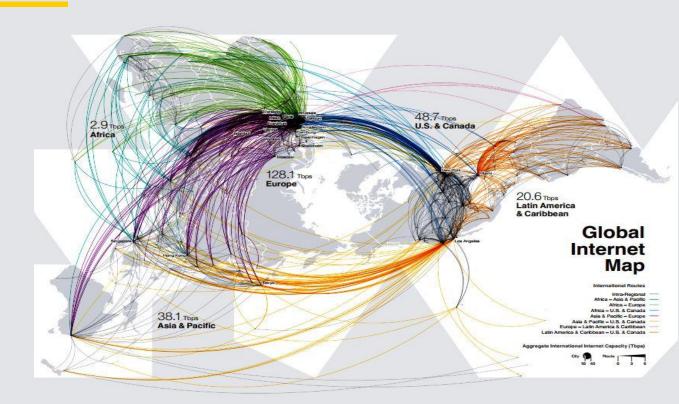
# From Sykes-Picot to *Pax Arabia*

- > A century of borders: Post-colonial collapse
- Connecting ancient cities: The new pan-Arabism



### **More Connectivity, Faster Speeds**

- Invisible Infrastructure: \$4T telecom spending (to 2020) on more cables, faster speeds
- Europe: Highest density; fastest speeds; broadest global reach
- Accelerated growth in global services trade



### A New Moral Compass: Towards a Global Society

Beyond anti-globalization, anti-capitalism, anti-technology: More access > divides Global utilitarianism (*Rawls*): From "bad" inequality to "good" inequality (*Milanovic*)

The "First Globals": Gen-Y & Gen-Z as a historical tabula rasa

#### Connectivity as an impulse

Unity over nationality (e.g. anti-Brexit, N/S Korea)

Human rights: Connectivity, mobility, political openness

#### Sustainability

Inter-generational equity
Services (renting/sharing) over goods (owning/keeping)



#### **Global Evolution: From Connectivity to Resilience**

#### No more chokepoints:

Competitive connectivity builds pathways for supply to meet demand

Ring-fencing volatility: Ukraine, Iraq, Libya, South China Sea

#### **Abundance and Stability:**

From "peak oil" to "gas glut"

US oil sales to China

#### **Toward Antifragility** (*Taleb*)

War is an event; networking building is a process



