# AIRSPACE STORIES: AERIAL INFRASTRUCTURING IN SINGAPORE

Weiqiang Lin June 14, 2018 Guest Lecture at Institute of Advanced Studies (IEA) and MRTE Laboratoire de Géographie Mobilités Université de Cergy-Pontoise

#### Overview

#### Background

- (Mobilities and) Aeromobilities
- Conceptual Framework, Case Study, Methods
- Four Airspace Stories
- Research Implications
- Ongoing and Future Trajectories (Brief!)

### **Mobilising Mobilities**

- Moving (air) transport geography forward (Shaw and Hesse, 2010; Shaw and Sidaway, 2011; Sheller, 2015)
  - Transport geography has 'become a quiet, some might say moribund, corner' (Hanson,2000: 469) of the discipline, overly reliant on'analytical frameworks of the 1960s' (p. 481)
- Mobilities "[T]heorists as well as more empirical analysts are mobilizing a 'mobility turn', a different way of thinking through the character of economic, social and political relationships" (Urry, 2007: 6)

### **Mobilising Mobilities**

- Mobilities are socially meaningful (Cresswell, 2010a)
- Produced from constellations of motion, representation and practice (Cresswell, 2010b)
- Relative (im)mobilities and politics (Adey, 2006)



### Airspaces

"For all that,... we [argue that] geographers need to move beyond a mapping of air routes to present empirically-grounded studies of the variegated – and contested – geographies of aeromobility." (Adey et al., 2007: 786)

#### Airspaces

- But whose 'winged gospel" is current scholarship mostly proselytising?
- Preponderance of American and British paradigms (in English-language academy)
- Sea of re-shuffling constellations

#### Assemblage

- Assemblage theory not new to mobilities studies
- Realities constituted by "relations of exteriority", not pre-fixed "relations of interiority" (de Landa, 2006: 10)
- Seeks to "emphasise emergence... and indeterminacy" (Anderson and McFarlane, 2011: 124)
- Populations of assemblages relating with one another, offering a sense of higher order assemblages (de Landa, 2006; Ong and Collier, 2005)

#### Singapore

 "Mobile city" – flows for and connected to world capital

- Postcolonial node in Asia
  - With a very different kind of aviation history (and positionality)
  - Many 'international' laws established before founding
- Small state, small market
- Follower or leader?

### Methodology

- How do you study airspace(s)?
- Mobile methods: following the subjects/objects of analysis (e.g. ICAO Bangkok, ASEAN)... but...
- Three main organisational branches
  - Air hub development (commercial)
  - Air traffic management (technical)
  - International relations (political)
- Commercial: 15 interviews, 2 newsletters series *Aviation Views* and *Highpoint* (1980-2009)
- Technical: 180 ICAO APAC reports, 12 interviews
- Political: ICAO reports (fr. 1959), archival materials 1930-1980 (Kew Gardens) 6 interviews, A38

### (I) Aircraft Cabin

- First 'infrastructure'- cabins of flag carrier (Singapore Airlines)
- Flight attendants as fleshly intermediaries and producers of desirable atmospheres (Lin, 2015)
- Emotional labour "to induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others" (Hochschild, 1983: 7)

### (I) Aircraft Cabin

- Service "better than anything anyone had experienced for a long time" (Allen, 1990: 72)
- (Self-)Orientalism (but also some interesting designers)
  - Image: Ian Batey (British advertiser)
  - Uniform: Pierre Balmain (French designer)
  - Make-up: Olivier Echaudemaison (French stylist)

#### (I) Aircraft Cabin

- "Speech therapy" British Council language instructors on "how [to] use your voice to give a favourable impression of yourself and the airline you represent" (*HighPoint*, 1984: 19)
- "Quiet Politeness" no "coughing over others; sneezing without placing the hand over the mouth; combing hair in public; looking over the other person's shoulder to read" (*HighPoint*, 1986: 3)

### (II) Route Maps

"Men [*sic*] realised and understood the importance of the air above their heads and dwellings. Quickly while the bombs were still dropping, men [*sic*] were frantically trying to come to agreement among themselves on some order to govern the air above them... [An] Agreement at the International Civil Aviation Conference in Chicago in December 1944... produced the 5 Freedom Agreement. Men learned the war lesson well. They extended the jealous protection to the economics of the Air. The Agreement from the 1944 Conference, therefore, left a gap for men [*sic*] to hassle, namely the economic rights to carry passengers, cargo or mail between one Contracting Party and third countries "

- Aviation Views, January 1986: 6

## (II) Route Maps

"I mean those ASAs don't just come about. Just cos you want to sign an ASA doesn't mean that the other country would want to sign an ASA. So there's also other work like cultivation work... to network, to cultivate, to build good relations with other countries." (Interview, 19 September 2012)

[O]ver time it is a relationship. They know you by name, you know them by name. They are a call away. So these are the sorts of relationships that we encourage [officers] to build (Interview, 10 September 2012)

### (III) Flight Medium

- Navigational airspace
- A technical framework of airways, control zones, aeronautical procedures and military divisions (Budd, 2009; Williams, 2011)
- But also differentiated by traffic profile (density, number of movements, aircraft type), political relations and underlying terrain

### (III) Flight Medium

- Separation of aircraft "action on the part of air traffic services to keep aircraft operating in the same general area at such distances from each other that the risk of collision is maintained below an acceptable safe level" (ICAO, 1998: 3)
- Tethered to the confidence of visibility, and accounts for aircraft capabilities, and tendency for errors in an airspace
- Vertical, lateral & longitudinal a 3D volume (Elden, 2013)

### (IV) Air Territories



# (IV) Air Territories

- Air Force commander Air Marshal Agus Supriatna has assured members of the Riau Islands Legislative Council (DPRD Riau) that Indonesia is ready to take control of the flight information region (FIR) over the province from Singapore.... 'Our equipment is ready to manage the civil flights. The Air Force commander told us that Indonesia is ready to take over and we would take control of it from Singapore in 2019,' [the secretary of the Council] told *The Jakarta Post*" (Jakarta Post, 08 Oct, 2015)
- More recently, possibility of China declaring an ADIZ in the South China Sea?

### **Research Implications**

- Aeromobilities and airspaces a-singular: made up of many projects that inter-reference one another
  - In Singapore, aeromobility is enabled by assembling of very strategic sites on the commercial, technical and political fronts
- Also, not one but multiple assemblages of such 'winged gospels' – constantly reinvented/adapted
- Not universal but emergent ways re-assembling airspaces – although they appear to result in the 'same' mobility

#### **Research Implications**

- Presence of dominant nodes, which dictate the meanings, rules and (infra)structural practices of mobilities
- Role of cities like Singapore (maybe Dubai?) as follower and regional leader
- How to fit these 'stories' within network analyses (and vice versa)

# **Ongoing and Future Trajectories**

- Rethinking the purpose of aerial infrastructures through their logistical uses
- How are lives organised, related, (im)mobilised and differentiated through transport infrastructures?
- One Belt One Road infrastructures
  - New world order, or
  - Local experimentations?

## Merci de votre attention! Thank you for your attention!



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