Zeitschrift: Schweizerische Zeitschrift für Soziologie = Revue suisse de sociologie = Swiss journal of sociology

Herausgeber: Schweizerische Gesellschaft für Soziologie

Band: 33 (2007)

Heft: 3

Artikel: City of layers : Bangkok's Sky Train and how it works in socially segregating mobility patterns

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DOI: https://doi.org/10.5169/seals-814232

City of Layers– Bangkok's Sky Train and How It Works in Socially Segregating Mobility Patterns

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> The most comfortable option for travelling in "new" Bangkok (Silom, Sukhumwit and Siam Square), the Sky Train is an elevated rail network that sails over the city's notorious traffic jams (Lonely Planet: Thailand)

1 Introduction

This paper concerns the construction of the "Sky Train" (BTS) in central Bangkok. The research question explores the potential socially segregating effect of the BTS on Bangkok mobility patterns. The paper will be framed within the bordering disciplines to urban sociology. The reason for this disciplinary crossing is a crisis of thinking and conceptualisation that has been haunting sociology for the last decades when it comes to understanding the meaning and importance of flows and mobility in contemporary city life (Cresswell, 2006; Urry, 2000). Even though there are potentials in re-reading classic sociologists for the purpose of understanding the contemporary mobile city (Jensen, 2006), this is only a minor priority in the field of sociology. There is a slowly growing realisation within contemporary sociology of the importance of understanding mobility and flows. Furthermore, as Castells argues, this makes sense only within a cross-disciplinary frame of analysis (Castells, 2005, 54).

The approach to this particular case has been a combination of urban theory studies, qualitative research interviews with experts and informants, document studies and field studies. In relation to the latter, the author has attempted to understand the mobile ethnography of Bangkok by walking and riding the different means of transportation during the field study.

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The author would like to express a particular thank to Ole Fryd, Bangkok for kind guidance, provision of documents, insightful guidance, many useful contacts and fun rides across town. Also thanks to Dean Learsome Sthapitanonda, the Faculty of Architecture at Chulalongkorn University Bangkok for hosting the author as *Visiting Scholar* in April 2006. Finally thanks to Simon Landy, Chairman of the RICS Bangkok for reflecting upon the relationship between the BTS and the property market by e-mail.

The structure of the paper is as follows. After the introduction section two establishes a short theoretical framework for understanding the contemporary mobile city. In section three the "scene is set" in the sense that some of the political and economic frame-conditions for the Sky Train are described. In section four the BTS case is explored in more detail based on the field studies conducted. The paper ends with a conclusion in section five.

2 Towards a Sociology of the Contemporary Mobile City

Contemporary urban theory is slowly recognising the increasing importance of mobility and flows in the social life of cities. The theoretical framing is tuned towards understanding the new networked geographies and a relational sense of place, the increasing importance of the relationship between mobility and motility, and finally taking issue with the power-dimension of the mobility practices within what now has been termed a situation of "splintering urbanism" and urban segregation.

2.1 New networked geographies and a relational sense of place

To comprehend the global networked system of mobility and its repercussion on the city, the starting point must be one of understanding the dialectics of flows and places within a relational understanding of space (Urry, 2003, 140). Or in the words of Castells: *Our cities are made up at the same time of flows and places, and of their relationships* (Castells, 2002, 397). In sociology this represents a new way of thinking about cities which has been recognised within human geography for some time. This is a process-oriented and relational way of thinking that *"lays a stress in movement, fluidity and 'mixity'"* (Massey, 1999, 161). In human geography and urban planning this way of thinking comes out of a critique of understanding places in general, and cities in particular, as bounded entities or "containers" within a fixed and static space (Guy, Marvin and Moss, 2001, 204).

2.2 The city dweller – between mobility and motility

As this new way of understanding the city and the social processes within has only begun making its imprint on the sociological imagination, there is an urgent need to specify and refine the notion of mobility within sociological research. The life and practices captured by the new sociological imagination are processes rather than things, moments of encounters rather than structural clashes (Amin and Thrift, 2002, 26 and 30). Needless to say all practices are not fluid and without constraint. In fact we have never before witnessed a situation where humankind commands that many diverse ways of selecting, restricting and ordering flows and fluids. This ranges from physical hardware solutions such as fences and gates, to technological programming and access control in complex virtual networks:

> *Of course our movement through buildings and cities, and our opportunities to assemble at various points, are far from unconstrained. In fact, cities operate as huge machines for sorting their populations and organising opportunities for face-to-face encounter and exchange. (Mitchell, 2005, 7)*

Therefore there is a need for understanding not only the physical act of movement (mobility) but also increasingly the potential for such movement – or "motility". According to Kaufmann:

> *Motility can be defined as the capacity of a person to be mobile, or more precisely, as the way in which an individual appropriates what is possible in the domain of mobility and puts this potential to use for his or her activities. (Kaufmann, 2002, 37)*

To Kaufmann it is crucial to show that the individual may get access to a "speed potential" (2002, 3) without automatically capitalizing on this. Whether one uses the potential to move, is an empirical question so to speak. Kaufmann also puts emphasis on actual movement and four particular forms of actual movement (mobility): migration, residential mobility, travel, and daily mobility (Kaufmann, 2002, 40). Here the embodiment and actual physical experience of mobility is the key to understanding how social agents acquire motility and transfers it into mobility mediated through various compromises made between aspirations, projects and lifestyles (Kaufmann, 2002, 45). In accordance with Kaufmann's notion of motility/mobility this study of the BTS is furthermore inspired by the argument that a mobility potential does not automatically become transferred into actual mobility. Here the theory creates an important leverage for free will and agency choice. However, Kaufmann also point to the fact that mobility is far from neutral as it takes on the characteristics of a value (Kaufmann, 2002, 101). This is in accordance with the analysis of Bauman (Bauman, 2002, 241) and furthermore very much with the case studied in this paper. In the words of Kaufmann: *"Spatial mobility is not an interstice, or a neutral liaison between a point of origin and a destination. It is a structuring dimension of social life and social integration"* (Kaufmann, 2002, 103). This study therefore explores the BTS and its "structuring dimensions" for social life and integration in Bangkok.

2.3 Splintering urbanism, power and urban segregation

In the new relational geographical understanding the city is understood as a "sociotechnical process" (Graham and Marvin, 2001, 10). Accordingly the city is a networked space of multiple flows and heterogeneous agents that increasingly must be seen as multiple networks in layers. The contemporary urban situation is seen from this perspective "splintered" (Graham and Marvin, 2001). By this is meant that

during the modernist ideal of urban development, the urban fabric was splintered horizontally (as has been known under the rather imprecise label of "sprawl"), by sub-urbanisation and urban growth. Now the urban fabric is simultaneously splintered vertically in terms of new complex overlapping infrastructures. For example, telecommunication networks, separated gangways between buildings, fast lanes etc. leading to new complex ways of social inclusion and exclusion.

According to Bauman mobility has become one of the most powerful stratifying factors in society (Bauman, 1998, 9 and 87). Thus a theory of mobility also has to be a theory of power. Transportation is recognised within the literature to affect the welfare of urban dwellers and as such to be crucial to the "just city" (Ballard et al. 2004; Borja and Castells, 1997; Hamilton and Hoyle, 1999; Portes and Manning, 1986). For Castells the development of "dual cities" (Castells, 2002, 307) represent this segregated effect that threatens to increase inequality and can be said to be filtered in a process of "differential mobility":

> *Differential mobility, access to space and inequalities in power to influence other's use of space reflect the interrelationship between social groups in the city ... the city is composed of more or less well defined social areas each of which is controlled by one or more groups who sustain a moral order there (Duncan, 2005, 165)*

Kellerman furthermore notes that increased mobility on the personal level may bring about more complex patterns of social segregation (Kellerman, 2006, 67). Such differential mobility illustrates the close link between social and physical mobility; *"in a very real way, therefore, barriers to spatial mobility are barriers to social mobility ..."* (Massey and Denton, 1993, 140).

In summary the framing efforts of this short theory section point at three main themes that must be explored in the empirical analysis. First of all, the new networked geographies of the city must be understood within a relational sense of place. This means that the structuring role of infrastructure and the importance of nodes and links for the city and region must be acknowledged. The second theme to be explored is the observation that one should differentiate between mobility and motility. This means that there may – or may not – be a congruence between potential for mobility and actual performed movement. Thirdly, the notion of splintering urbanism suggests that we should pay close attention to issues of power and urban segregation, as mobility practices are nested within social hierarchies and systems of resource allocation that make mobility a value-laden and socially structuring phenomenon.

3 Setting the Scene – Getting to Know the Context

From this short theoretical framing we shall now look into the context of the Sky Train in Bangkok. The political culture of Thailand is made up of a complex relationship between monarchy, democracy and Buddhism. Infrastructure plays a vital role in the Bangkok/Thai culture. Not just as systems of flows. Rather they carry an important symbolic meaning. Thus most main infrastructures are symbolically blessed by the King in person before taken into use. Furthermore, the naming of large infrastructure arteries indicates the monarchy's symbolic importance. During the field work in April 2006 there was political unrest in Thailand. This culminated with the so-called "Silk Coup" of November 19 2006 in which the military took over the government (supposedly only temporarily). In other words the political culture of Thai governance carries the hallmark of a distinct mixture of religious beliefs, monarchy, democracy and "rule of law", corruption and military intervention. This makes an interesting and very difficult foreseeable political context for urban intervention and transport investment. But it also shows the cultural background upon which the Sky Train must be understood.

Bangkok Metropolitan Region covers 56,875 sq. km with an urbanised area of approx. 700 sq. km (Department of City Planning, 2004, 31). In the Metro-

Bangkok – City of Layers (Photo: Ole B. Jensen)

politan area the population has shifted from 5.018.327 in 1985 to 7.250.000 in 2000 (Susteren, 2005). The estimated population density is relatively high at 13,869 inhab/km^2. However in the Metropolitan area the Central Business District (CBD) takes up only 4.2% of the area (Susteren, 2005). Economically the average income per capita is 12,042 (EURO) and the unemployment rate estimated to be 2.2 % (Susteren, 2005). However, such figures must be taken with much care as the informal economy makes up a large part of the urban economy in Bangkok. So do the informal settlements. It is estimated that about 20% of the population in Bangkok lives in informal settlements (Ribeiro, 2001, 118). In transportation terms the Metropolitan area is served by public transportation covering a market share of 29.4% whereas the private vehicle market share is 70.6% (Susteren, 2005). The average commuting time is estimated to be 60 minutes per day, the average road speed 13 km/h and the transport system has a vehicle density of 130,754 vehicle km/km^2. There are about 20 million motorised trips daily in Bangkok (Fjellstrom, 2003, 7). Thus any visitor to central Bangkok will as one of the first things notice the traffic jams and massive congestion as well as many signs of social segregation (Douglass, 1998; HABITAT, 2001; Hamilton, 2000; Pacione, 2005).

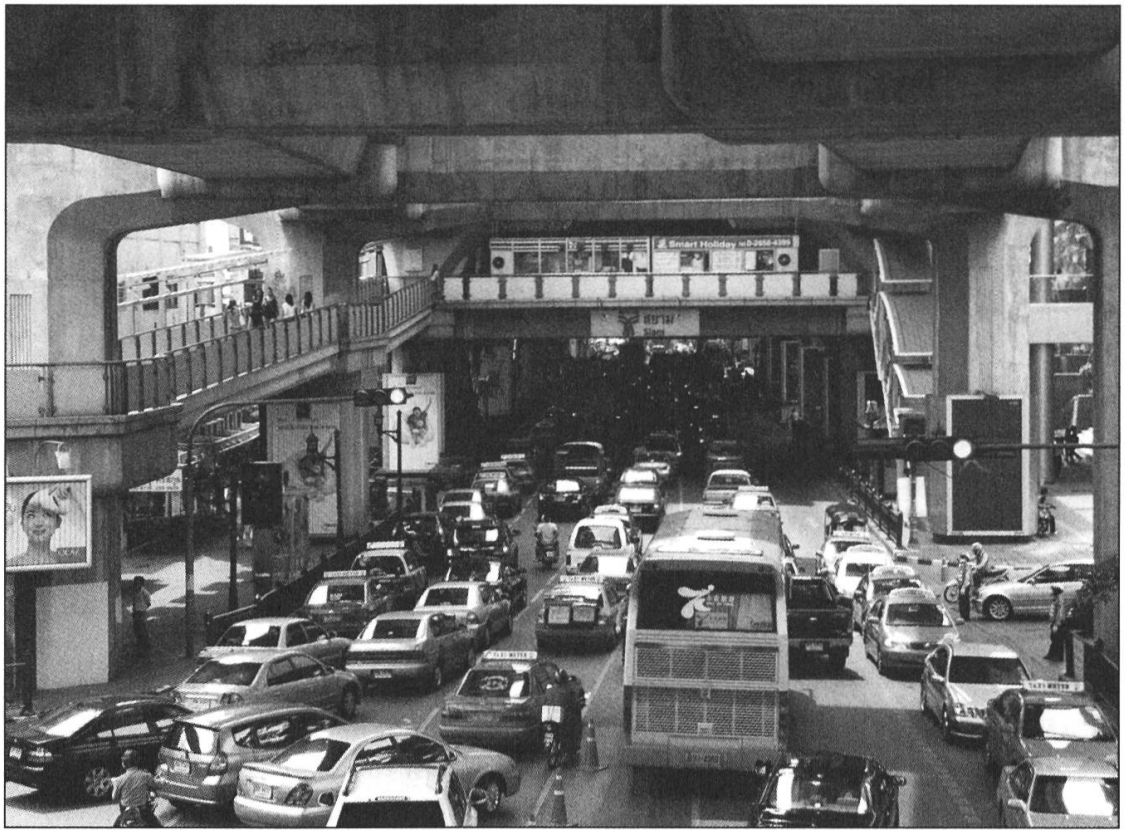
Historically Bangkok has circulated its population by water ways. The city is historically a "water based city" meaning that the many canals ("klongs" in Thai) were initially used as waterways in the urban transportation system. Bangkok has a long tradition of attracting foreign visitors and investors (Beek, 2002, 122). After the water decreased as the most important flow system for mobility, the asphalt took over, first in the form of the collective transport then in the private car-use (Beek, 2002, 58–59). Bangkok has less than 9% of its land area taken up by roads compared to the norm of 20–25%, and car ownership has risen from 70.000 in 1960 to over 2.000.000 by 1990 (Hoskins, 2000, 22). In Bangkok one is facing a road-based city indeed, with little or only very recent coordinated planning efforts (Matsumoto, 2004, 18).

3.1 The transport economic realities of everyday life in Bangkok

There is a number of different modes of transportation servicing the population of Bangkok, and not all of them are equally safe or reliable. The "green minibuses" are in the inexpensive end of the spectrum and a flat fare one way ticket costs approx. 5.5 Baht. The advantage of this means of transportation is a high frequency and a low fare (even though the increase in oil prices almost doubled the fare in 2005), whereas the disadvantage is the high risk as they mostly are full of passengers and there are no doors! The next in the transport hierarchy are the "red buses" where the fare is 5 Baht for a flat fare and with a "fan" as the cooling technology. The "blue aircons" are the air conditioned buses (seen by many Bangkok residents as an essential feature) that charge depending on the distance travelled and start at 8 Baht. The "orange aircon" are newer buses all with air condition, fare depending on

distance starting at 12 Baht (are in Thai called "European Buses" as the Thais find they resemble buses seen in Western movies). After this comes the "purple minibus" that runs at 20 Baht flat fare, and where there is a seat guaranteed for all. The last in the bus hierarchy are the "Toyota Hi-Ace minibuses" that runs non-stop from point A to point B, are charging depending on distance and start at 20–25 Baht.

Leaving the collective means of transportation we find the taxis. These start at 35 Baht which includes the first 1.9 km. After this distance they charge 1.7 Baht/km plus an additional charge if the traffic is particular slow due to traffic jams (below 6 km/h). In practical terms this means that an average trip in the city centre is about 50 Baht, while a longer trip is about 70–80 Baht. Normally the taxis would carry up to 4 persons, but teenagers and less well-off families are able to cram 8–10 persons into a standard taxi. Next to the ordinary taxi we find the motorcycle taxis. These are mostly used to get from the home to a bus station or a Sky Train station and they run for about 10 to 20 Baht. Longer trips cost about the double of a regular taxi trip. The motorcycle taxi is undisputedly the fastest mode of transportation – and by far the most dangerous as about 80% of all traffic accidents in Thailand include motorcycles. Closely related to the motorcycle taxi is the tourism icon of Bangkok, the "tuk-tuk" which is a three-wheeled moped with a roofed passenger seat for two



Culture of Congestion (Photo: Ole B. Jensen)

to four persons. They charge from 20 Baht and profit mainly from tourist that find them exotic and recognise them from the travellers guides.

Finally we find the Subway and the Sky Train as the newest modes of transportation within the mobility portfolio of Bangkok. The Sky Train charges from 10 to 40 Baht depending on the distance. But there are also sold tour cards so the price can get to an average of 20 Baht. The very limited routing of the train makes it hard for most users to settle for this alone. The Subway has approximately the same price level, charging between 15 and 39 Baht. Due to the power relations and institutional complexity there is a lack of sector coordination within the Thai planning system (Fryd, 2005). This is manifested by the fact that the Sky Train and the Metro de facto do not connect physically very well. Obviously the main traffic source in Bangkok is made up of the private car. The economy of private car use is not estimated here, but it goes without saying that it varies widely from the humble wrecks to the high-end luxury limousines that are also part of the urban mobility picture in Bangkok.

4 Rot-Fai-Fah – the "Car with Fire up in The Air"

When the local population of Bangkok speaks of the BTS they call it Rot-Fai-Fah literally meaning "the car with fire up in the air" (for translation see http://www.bankokbob.net/sky_train.thm). The first real steps towards realising the Sky Train came in April 1992 where BMA (Bangkok Metropolitan Authority) awarded the BTSC (Bangkok Mass Transit System Plc) a 30-year concession to build and operate the system. At that point in time the goal was to create a mass-transit system that was *"safe, comfortable, fast, convenient, reliable and affordable"* (Hoskins, 2000, 47). However, the first contract was not signed until July 1995 with Siemens and ITD. Further delays made the first day of operation January 1st 2000 (Hoskins, 2000, 49). Operating on the two lines, the "Sukhumwit Line" (17 km) and the "Silom Line" (6.5 km), the Sky Train made it possible to triple the average car speed in the city by operating with 35 km/h. Thus making a cross-town trip from Chatuchak Market to Sukhumwit Soi in less than 30 minutes compared to the 90 minutes before the Sky Train (Hoskins, 2000, 45).

Running across town and above other infrastructures of the city at 12 meters above the ground it makes a massive elevated concrete band with 2.5 meters in diameter support columns touching down at 23 stations. The Sky Train is developed and operated by Bangkok Mass Transit System Plc (BTSC) and was constructed by a consortium of contractors led by Siemens and Italian-Thai Development Plc (ITD). The Sky Train has been called the first modern large-scale mass transit system in the world solely privately financed. The total project costs are estimated to be approximately US$ 1.6 billion (Hoskins, 2000, 45).

Rot-Fai-Fah – the "Car with Fire up in The Air" (Photo: Ole B. Jensen)

In the early months of the Sky Train operations were about 150.000 passengers against the needed 600.000 (Hoskins, 2000, 51), whereas the estimate of the current daily user figures is between 380.000 and 400.000 (Vichiensan and Miyamoto, 2006, 3; Perera, 2006, 11). The passenger shortfall reflects the limited routes and a failure of bus companies to operate feeder services to the Sky Train. As a consequence of the different ownerships and control of Bangkok infrastructure, the Sky Train was perceived more as a competitor than a complementary infrastructure by the bus operators. This is a reflection of the overlapping spaces of flows and jurisdictions. As the Sky Train has now existed for 7 years there has been a shift in both the public perception of the train as well as in the number of passengers travelling on the Sky Train. Furthermore, the gap in price between the train and the (air-conditioned) busses is decreasing. All in all making local policy analysts conclude that the Sky Train has come closer to the hearts and habits of Bangkok's middle class (Personal interview with Professor, Dr. Charas Suwanmala, Chulalongkorn University). However, the poor people and the immigrant workers still cannot afford the ticket price for the Sky Train.

In the beginning the BTS could not, as mentioned, meet the break even point. The fare was relatively expensive and the Bangkok population did not compare the new situation with the *"time value"* (Personal interview with Dr. Nopanant

Tapananont). This has changed due to many factors such as rising oil prices and a transformation of the price ratio between bus and BTS in favour of the latter. But what seems to be the most illustrative lesson from this, is the notion of *"time value"* as a cultural specific mobility norm that was not present at the beginning of BTS operation, but which has now become a well established calculus of the Bangkok middleclass and business people. The BTS is praised as the main reason that business people now de facto are able to make time-specific appointments across town – and keep them. The Sky Train (within its limited radius) contributes to a new "culture of punctuality" in Bangkok. A culture that for a very long time has been the norm in many Western cities, as for example noticed by Georg Simmel on Berlin in the 1880s (Simmel, 1903/50). This suggests that the rationalities for coping with daily mobility in Bangkok has changed (for some) as the more profound way of relating to time and space gets inserted into a new way of comprehending urban flows and mobility.

4.1 City of edges and layers

Bangkok is a city of edges and layers in physical as well as in socio-spatial terms. Physically Bangkok is very much marked by its mobility layers. Some observers say the Sky Train has introduced a new sense of order in Bangkok as it is *"clean, cool and quiet"* (Hoskins, 2000, 54) – the modern anti-thesis to much else of Bangkok's urban fabric. However, one could also say that the BTS spreads generic urbanity as it scatters more or less soulless concrete train platforms alongside its route. Moreover, the Sky Train creates dark tunnels bellow where the congestion fumes and the heat turns unbearable (Beek, 2002, 121).

According to a study of Vichiensan and Miyamoto (2006, 6) there is a very clear connection between property prices and the BTS. This is also recognised by one of the leading Bangkok Real Estate Agencies:

> *The Government's decision to invest in mega projects over the next few years is good news in the property market, particularly those mass transit and road network projects. Those projects will open new corridors for new property development opportunities. Many areas that now have no property development potential will benefit from their better accessibility. This means developers can develop new projects outside the downtown area and offer them at lower costs thanks to lesser expensive land prices in those areas. Once those projects are developed, Jones Lang LaSalle expects a growth in real estate, beginning with the residential sector, followed by retail and the office sector in certain locations. (Jones Lang LaSalle, 2006a)*

As Jones Lang LaSalle argues there is a reason for the investors to look with great expectation at the new infrastructure link to the shopping centre at Siam Paragon

since it is going to be the *"hottest retail development project planned for completion this year"* (2006a). Also academic analysts find a reason to expect a positive relationship between property prices and Sky Train infrastructure:

> *In close proximity to the city's Sky Train system condominiums offer tremendous luxury at premium prices and most of the residents are well off business-men and expatriates. Away from the nodes the glitter and glamour is exchanged by bare concrete and residents are more likely to be factory workers and taxi drivers. (Wissink et al., 2005, 8)*

According to other real estate agents in Bangkok, the market slowly seems to adjust to the new condition made by the BTS. Not in the sense of making the accessibility more evenly distributed, but in the sense that the Sky Train can be seen as taking off some of the "heat" from the centrally located areas. The new zones of high-end development are following the track of the Sky Train, and thus reallocating investments along the flow infrastructures. In this way the Sky Train facilitates a segregated geography transcending the "traditional" horizontal divide between rich and poor urban enclaves. The BTS is over layering Bangkok with a new vertical geography of segregation.

The Sky Train does not only facilitate the easy access to buildings by means of direct sky-bridges. It also facilitates a development of the Thai version of "gated communities" known through-out the Western world. Together with the private car and the sealed off enclave the Sky Train ads a layer of secure, fast and comfortable mobility potential for the well-offs:

> *... a first view does clearly indicate that the daily networks of high-end mubahnchatsan [Thai for gated communities] inhabitants are very extensive, the car in combination with the sky train being the main means of transportation. Alternatively, the networks of the inhabitants of informal settlements and low-end mubahnchatsan are small, with most activities being restricted to the vicinity of the neighbourhood. (Wissink et al., 2005, 15)*

The informal settlement structure and the squatter settlements are often the next zone of development. The settlement occupies or rents land and attracts services. The process then gets accelerated with the advent of infrastructure projects as *"With the upgrading of infrastructure, an urban site becomes more attractive and the residents of these settlements come under pressure to be evicted"* (Ribeiro, 2001, 118).

In summary the Chairman of the Real Estate Association RICS, Simon Landy explains that the Sky Train has impacted demand patterns in the city to some extent. First, in the office market, tenants are showing a growing preference for office buildings within easy reach of a Sky Train or an underground station. Second, in the

residential market, buyers and tenants are similarly drawn to proximity to Sky Train stations. This preference has become even more marked since the rapid escalation in oil prices. Some developers are switching to build more inner city condominiums because they are finding buyers more reluctant to buy houses on suburban estates, at least partly because of the increased commuting costs (Personal communication with Simon Landy).

4.2 An icon of modernity

Politicians are keen on thinking of the BTS as a symbol of progress set against the bleaker image of a car congested city. As such the BTS might be said to fulfil a larger role as branding object and imaginary icon. To estimate the total effect of the Sky Train on everything from traffic to economic activity is not an easy task, but some see the main effect of the Sky Train to be the symbolic branding value (Suwanarit, 2005, 48).

Many commentators explain that there were an initial resistance against the Sky Train, but that this was mostly coined in terms of environment and aesthetics (Hoskins 2000, Personal interviews with Dr. Tapananont and B. Mekvichai, Deputy Governor of Bangkok). Accordingly, the voices against the concrete pillar construction silenced as time passed by and the public "got used to it" as the phrase goes:

> *Nonetheless, as people become used to the Sky Train, it emphatically alters the way in which they experience Bangkok. It is as if time and space in the city have become new dimensions and, for example, a shopping excursion between business appointments in Silom to the Emporium on Sukhumwit Road is now not an impossibility ... Moreover, the City is viewed differently. Sees from the vantage point of 12 meters above the streets, Bangkok reveals itself as a far greener city than imagined with gardens normally hidden behind compound walls suddenly exposed. (Hoskins, 2000, 52)*

However, the gaze to the sky from below is been even further segregated since the Sky Train effectively creates congested tunnels of car emission:

> *Roofed by the tracks above, many city streets have become tunnels of noise and smog. To most people below, the sky is almost invisible, yet this has somehow developed into an accepted landscape. (Suwanarit, 2005, 47)*

Clearly the Sky Train is more than a machine for shifting people from point A to point B. The fact that an increasing number of "modern" Western inspired music videos with Thai rock and pop artists choose the Sky Train platforms as location indicate that this is a space of particular strong iconic connotation. In this way the Sky Train facilitates the illusion of a "first world urban aesthetics" bracketed off by

deliberate and meticulously selected camera angles. Furthermore, tourists are taking pictures of the BTS as much as they take pictures of the Royal Castle, illustrating the point that Bangkok has got a global mobility icon in its urban landscape. But the BTS is more than a media-made icon of modernity as the "ordinary Thai" seems to understand it as symbolising the transition of Thailand towards being a global player in the networked world of planetary capitalism: *"For Thai people the BTS is a symbol of progress and modernisation"* (Personal interview with Dr. Nopanant Tapananont).

4.3 Sky Train and below – parallel worlds and new public domains

Interestingly the practice of policing the privatised spaces of the walkways, platforms and connections to the Sky Train has changed dramatically. In the beginning of the existence of the Sky Train all types of vendor activities were strongly prohibited and enforced (Jensen, 2004, 88). However, today the wide gangways and semi-plazas connecting the Siam Square station with the MBK shopping mall are filled with street vendors selling everything from designer cloths copies to Thai souvenirs. Evidently such practices are creating new forms of "public domains" (Hajer and Reijndorp, 2001) within the city. The BTS thus plays a trick on the fixed notions of private and public spaces. New hybrid forms of public-private domains is the result hereof. In this sense the BTS (unintendedly) supports the economic culture of the street side by side with the huge shopping malls that the Sky Train connects, thereby adding to the complexity of Bangkok's transit flows and urban geography. To the Western tourist the street vendors on the BTS platform add "experiences" to the urban transport. Obviously the private owners of these facilities have opened up access to this type of activity because it adds to the commercial attractiveness of the Sky Train as it may capture more well spending tourists. However, not all analysts are so positive. The picture at the end of the Sukhumwit line below and around the On Nat station offers ground for another interpretation, as here in the words of Marling:

> *On Nat is the terminal station of the Sky Train. Due to the creation of the Sky Train it has become a transferral, which today is the main identity of the area. The image of the area is dominated by fences which increase when experienced at eye-level. By mapping functions around the station, it was discovered that all the sites in the area were private and turned into gated communities. This is clearly an area with high disparity between poor and rich persons and poor exchange between different social classes. This means that the only place where you are allowed to stay and wait for the bus is on the sidewalk of the very busy 6-laned roads. (Marling, 2005, 198)*

So to some social groups the Sky Train has realised a very profound change in the mobility patterns and cultures, segregating the city into poorer residents and immigrant workers on the one hand and businesspeople and tourists on the other hand. Though senior government officials seem to think of the Sky Train as socially inclusive and open to all classes (Interview with Banasopit Mekvichai, Deputy Governor of Bangkok), the train is adding another layer to a city marked by social segregation (Andersen et al., 2002, 33):

> *The upper middle classes and the rich people transport themselves and live generally speaking, from 3rd floor and up. They work in buildings with air condition; they shop in air conditioned shopping malls; go to cinemas and train in cool fitness centres. They even transport themselves in air conditioned cars on elevated high ways or in sky trains. (Marling, 2005, 34)*

However, it is not only the networked malls and shopping spaces that carry the mark of social segregation. The city enclaves are increasingly marked by such fluidity:

> *The local everyday life of the city of enclaves is also disintegrating. Mobility in the city region has become a part of everyday life and increasingly more social groups live their everyday life in transit zones and downstrokes in the city. The infrastructure as well as the lifestyle determine how far you travel and where to. (Marling, 2005, 44)*

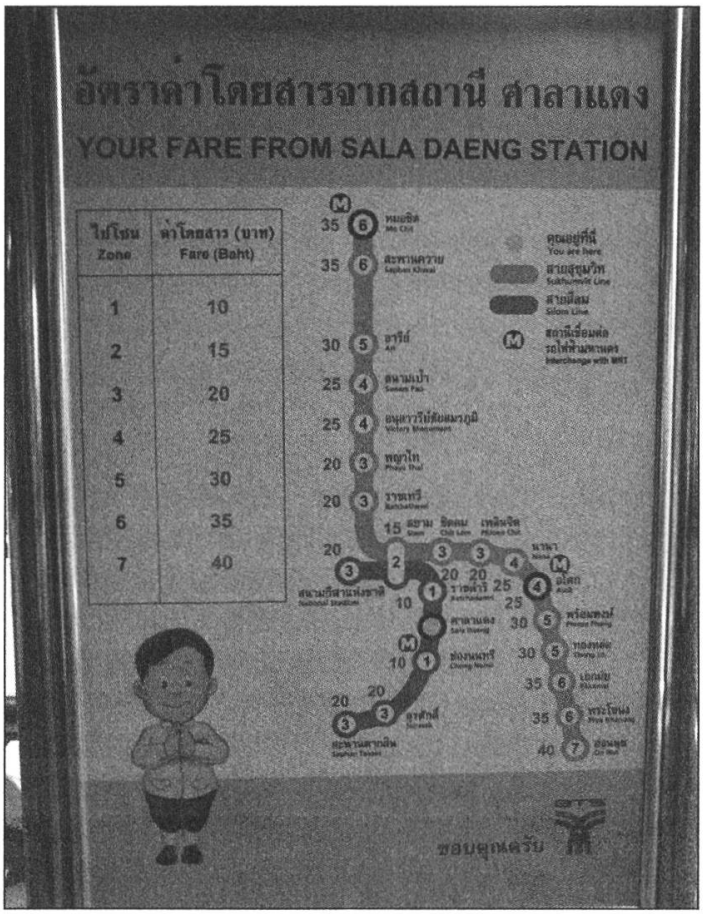
The Sky Train connects to the above layer of the city that already has been taken over by the rich in the high-rise buildings. This is reminiscent of the remarks by Koolhaas who in the essay on the *"Generic City"* notices that the ground is possessed by the poor and the sky by the rich (Koolhaas, 1995). To the question of whether the BTS has socially segregating effects, some analysts would say that it was the case in the beginning due to the expensive fare but also that more people are now using it (Personal interview with Dr. Nopanant Tapananont). Higher up in the hierarchy the assessment of the BTS gets even more positive remarks as in the words of the Deputy Governor: *"Personally, I think ... everyone uses the Sky Train ... that is a new perception ... This is convenient and you know exactly when you get somewhere"* (Personal interview with B. Mekvichai, Deputy Governor of Bangkok). On the other hand even the Deputy Governor also acknowledges that *"Bus and BTS accommodate different people"*.

4.4 Circulating shoppers and capital

Some argue that the BTS has become a new symbol and icon of Bangkok's entrance into the realm of super-modern or perhaps post-modern metropoles:

> *Six years on, it [the BTS] has attained a unique status as the icon of contemporary Bangkok. Its overwhelming presence is featured in every conceivable media – new music videos, movies or advertisements. The Sky Train is an indispensable symbol of the new generation. Its new mode of movement, floating high above the ground, allows the commercial buildings that exist along its 13-kilometre distance to "plug-in" to their nearest stations, sucking commuters to engage in shopping activities, forming a new type of hypershopping experience – a central shopping district. The Sky Train functions as an organ of capital flow. (Ayuthaya, 2005, 16)*

Aside from being seen as the new icon of the city, the BTS facilitates two major circuits and flows; shoppers and capital. However, the BTS facilitates shoppers and tourists more than for example the everyday commuters. There is a huge part of the population cut off from the "cathedrals of consumption" (Ritzer, 2005) that the new middle classes and upper classes enjoy in the contemporary city. Sky-bridges convert the flows of passengers into flows of power-shoppers. In the early life of the BTS the pecuniary tentacles were few and un-noticed, but during the last few years



The Sky Train Route Map (Photo: Ole B. Jensen)

the mushrooming shopping malls increasingly throw anchor at the flow system in order to profit from the spending masses.

Even tough it could be argued that the BTS does not have any identifying central node the Siam station marks the centre of tourist commercial gravity – particularly linking to the huge MBK shopping centre. What strikes one as a passenger of the BTS is the relative seamless experience of travel that one gets whilst first embarking on the journey above the busy and smoggy streetscapes of "Bangkok below". Sensing the cool breeze of air-conditioned environment is probably the most evident difference relating to the bodily sensation that makes one feel that this is not a municipal bus. This is precisely what Kaufmann pointed at with the embodied experiences of actual mobility. The design and the layout of train stations, ticket machines and the interior of the carriages is cool, functional and aesthetically held in an international/generic style leaving you with no clues what so ever whether you are in Asia, North America, or Europe.

5 Concluding Remarks

The BTS does not shift large volumes of passengers to affect the congestion seriously in Bangkok. Nevertheless, the environmental effect of the BTS are considered positive (Perera, 2006). The socio-spatial effects of the BTS are a quite different story though.

The research of the BTS illustrates how the new networked geographies of Bangkok configure a relational set of infrastructure nodes facilitating strategic points of the city (e.g. expensive high rise accommodation or shopping centres). This research suggests that the mobile elite of Bangkok (being business people as well as well-off tourists) not only increases its "speed potential" in motility terms but also that they in fact uses this potential to fast, safe and reliable actual movement within the city. The BTS re-produces urban segregation, as the mobility practices related to the train are nested within social hierarchies and systems of resource allocation that make mobility a value-laden phenomenon. In Bangkok there is a problem of "double segregation". Firstly, the BTS contributes physically and geographically to segregation as the clean-aired infrastructure over the smog-filled streetscape below. Secondly, the BTS contributes to a socio-economic segregation as it separates its users along the line of economic income and thus restricts the relative motility of the less well off inhabitants to the rich, the middleclass and the many international tourists riding the BTS.

As the BTS throws its tentacles in forms of sky-bridges into the enclaves of capital to be found in high-end condominiums or shopping centres along the route it becomes increasingly clear that the BTS works in a socially segregating way creating socio-spatial inequality in both relative and absolute terms. However, it also

spurs effects that transform the more subtle expressions of the mobility culture in Bangkok. This is most predominantly seen in the way that the BTS reconfigures the rationality behind urban travel as social agents start understanding the concept of *"time value"*. The BTS facilitates the system of punctuality in the city as business people now start to make reliable meeting appointments.

Sociologically speaking the BTS therefore cannot be understood as socially "neutral" to the mobility patterns of Bangkok. It may carry great advantages for the businesspeople, tourists and middle classes but in relative terms the flow of less well off inhabitants clearly faces worse conditions as they are condemned to the dark and heavily congested tubes of infrastructure created below the fluid cannels of the Sky Train. Furthermore there is beginning evidence of a positive relationship between Sky Train stations and increasing property prices near the sites. As the main stations operate in the inner city areas there is no reason to believe that this increase in property value will not benefit the well-off property owners in the Central Business District. Moreover, the construction of sky-bridges to shopping centres such as the *Siam Paragon* (where Italian luxury cars are at display at the entrance level) clearly demonstrates that the BTS has an effect on the socio-economic geography of Bangkok favouring capital intensive developers and investors.

In the networked urban geographies of Bangkok's transportation system new mobility practices are played out in a relational space where the potential for movement is shifted in favour of the elite and the tourists. The BTS reconfigures the mobility patterns of the inner city of Bangkok in ways that are much more than just planning policies to overcome congestion and traffic jams. They are also expressions of power and social exclusion. In the "city of layers" the Sky Train facilitates socially segregating mobility patterns.

6 References

Amin, A. and N. Thrift (2002), *Cities. Reimagining the Urban*, Oxford: Polity Press.

Andersen, L. L.; O. Fryd, L. R. Poulsen and S. N. Sauvé (2002), *Bangkok Byways*, Aalborg: Study Board of Architecture and Design.

Askew, M. (2002), *Bangkok. Place, Practice and Representation*, London: Routledge.

Ayuthaya, M. I. (2005), Intense Multiplicity: Bangkok, *Architectural Design*, 75, 6, 16–17.

Ballard, R. D.; G. S. Johnson and A. O. Torres, Eds. (2004), *Highway Robbery. Transportation Racism and New Routes to Equity*, Cambridge Mass.: South End Press.

Bauman, Z. (1998), *Globalization. The Human Consequences*, Oxford: Polity.

Bauman, Z. (2002), *Society under Siege*, Oxford: Polity.

Beek, S. V. (2002), *Bangkok. Then and Now*, Nonthaburi: AB Publications.

Borja, J. and M. Castells (1997), *Local & Global. Management of Cities in the Information Age*, London: Earthscan Publications Ltd.

Castells, M. (2002), *The Castells Reader on Cities and Social Theory*, Oxford: Blackwell (ed. by Ida

Susser).

Castells, M. (2005), Space of Flows, Space of Places: Materials for a Theory of Urbanism in the Information Age, in: B. Sanyal, Ed. (2005), *Comparative Planning Cultures*, London: Routledge, 45–63.

Cresswell, T. (2006), *On the Move. Mobility in the Modern Western World*, London: Routledge

Douglass, M. (1998), World City Formation on the Asia-Pacific Rim: Poverty, "Everyday" Forms of Civil Society and Environmental Management, in: N. Brenner and R. Keil, Eds. (2006), *The Global Cities Reader*, London: Routledge, 268–274.

Duncan, J. S. (2005), Men Without Property: The Tramp's Classification and Use of Urban Space, in: J. Lin and C. Mele, Eds., *The Urban Sociology Reader*, London: Routledge, 165–172.

Fjellstrom, K. (2003), Transit reform in Bangkok, *SMART Urban Transport*, November 2003, 6–8.

Fryd, O. (2005), *Metropica*, Aalborg University: Department of Architecture and Design, MA Thesis.

Graham, S. and S. Marvin (2001), *Splintering Urbanism. Networked Infrastructures, Technological Mobilities and the Urban Condition,* London: Routledge.

Guy, S.; S. Marvin and T. Moss, Eds. (2001), *Urban Infrastructure in Transition. Networks, Buildings, Plans*, London: Earthscan.

HABITAT (1999), *Reassessment of Urban Planning and Development Regulations in Asian Cities*, United Nations Centre for Human Settlements (HABITAT), HS/558/99E.

HABITAT (2001), *Cities in a Globalizing World. A Global Report on Human Settlements 2001*, London: Earthscan.

Hajer, M. and A. Reijndorp (2001), *In Search of New Public Domain. Analysis and Strategy*, Rotterdam: NAi Publishers.

Hamilton, A. (2000), Wonderful, Terrible: Everyday life in Bangkok, in: G. Bridge and S. Watson, Eds. (2000), *A Companion to the City*, Oxford: Blackwell, 460–471.

Hamilton, K. and S. Hoyle (1999), Moving Cities: Transport Connections, in: J. Allen, D. Massey and M. Pryke, Eds., *Unsettling Cities*, London: Routledge, 49–94.

Hoskins, J. (2000), *Bangkok. Subways, Sky Trains and a City Redefined*, Bangkok: CURIOSA Publishers.

Jensen, B. B. (2004), Case Study Sukhumwit Line – or Learning from Bangkok, in: T. Nielsen, N. Albertsen and P. Hemmersham, Eds., *Urban Mutations – Periodization, Scale and Mobility*, Aarhus: Arkitektskolens Forlag, 184–218.

Jensen, O. B. (2006), Facework, Flow and the City. Simmel, Goffman and Mobility in the Contemporary City, *Mobilities*, 2, 2, 143–165.

Jones Lang LaSalle (2006), *Market Wrap Up 2005 – Thailand*, http://www.joneslanglasalle.co.th.

Kellerman, A. (2006), *Personal Mobilities*, London: Routledge.

Koolhaas, R. (1995), The Generic City, in: R. Koolhaas and B. Mau, Eds., *S, M, L, XL*, New York: The Monacelli Press, 1239–1264.

Marling, G. (2005), *Bangkok Songlines. Spaces, Territories, Mobility*, Aalborg University: Department of Architecture and Design.

Massey, D. (1999), On Space and the City, in: D. Massey, J. Allen and S. Pile, Eds. (1999), *City Worlds*, Milton Keynes: The Open University Press, 157–170.

Massey, D. S. and N. A. Denton (1993), Segregation and the Making of the Underclass, in: J. Lin and C. Mele, Eds. (2005), *The Urban Sociology Reader*, London: Routledge, 134–144.

Matsumoto, N. (2004), *Issue Paper on Environmentally Friendly Public Transport Planning*, Manila: Manila Policy Dialogue on Environment and Transport in the Asian Region, 16–17 January 2004.

Simmel, G. (1903/50), The Metropolis and Mental Life, in: K.H. Woolff, Ed., *The Sociology of Georg Simmel*, New York: The Free Press, 409–424.

Mitchell, W. J. (2005), *Placing Words. Symbols, Space, and the City*, Cambridge Mass.: MIT Press

Pacione, M. (2005), *Urban Geography. A Global Perspective*, London: Routledge.

Perera, R. (2006), *Promoting Travel Demand Reduction in Transport Sector in Cities of Asian Developing Countries: Case of Bangkok*, Pathumthani: Asian Institute of Technology.

Portes, A. and R. D. Manning (1986), The Immigrant Enclave, in: J. Lin and C. Mele, Eds. (2005), *The Urban Sociology Reader*, London: Routledge, 153–163.

Ribeiro, G. (2001), Bangkok: Informal Space, in: P. D. Mortensen and H. Ovesen, Eds., *Fields of Urban Research*, Copenhagen: The Royal Danish Academy of Fine Arts, School of Architecture, 115–121.

Ritzer, G. (2005), *Enchanting a Disenchanted World. Revolutionizing the Means of Consumption*, Thousand Oaks: Pine Forge Press.

Susteren, A. v., Ed. (2005), *Metropolitan World Atlas*, Rotterdam: 010 Publishers.

Suwanarit, A. (2005), The Sky Train in Bangkok, *Topos,* 53, 45–48.

Symons, P. (2003), Viewpoint: Retrieving urban rail policy leadership, *SMART Urban Transport*, November 2003, 10–14.

Urry, J. (2000), *Sociology beyond Societies. Mobilities for the Twenty-first Century*, London: Routledge.

Urry, J. (2003), *Global Complexity*, Oxford: Polity Press.

Vichiensan, V. and K. Miyamoto (2006), *Integrated Approach to Analyze Land-use Transport and Environment in Bangkok: Case Studies of Railway Impact and TRANUS Application*, Bangkok: Kasetsart University.

Wissink, B.; R. Dijkwel and R. Meijer (2005), *Bangkok Living. Social Networks in a Gated Urban Field,* Paper for the Conference "Doing, Thinking, Feeling Home: the Mental Geography of Residential Environments", October 14–15, 2005, OTB Delft.

6.1 Web resources

http://www.2Bangkok.com

http://www.bts.co.th

http://www.joneslanglasalle.co.th

http://www.bangkokbob.net/sky_train.thm

6.2 List of personal research interviews carried out by the author in April 2006

Mr. Jørgen Thomsen, Retired Engineering Consultant to the Bangkok Expressway Authority, April 7th 2006, Bangkok.

Mr. Ole Fryd, Planning Consultant, April 8th 2006, Bangkok.

Professor, Dr. Charas Suwanmala, Faculty of Political Science, Chulalongkorn University, April 11th 2006, Bangkok.

Dr. Nopanant Tapananont, Faculty of Architecture, Chulalongkorn University, April 11th 2006, Bangkok.

Banasopit Mekvichai, Deputy Governor of Bangkok, Bangkok Metropolitan Authority, April 12th 2006 Bangkok.