

A Paper Submission

To the

**ASIAN MEDIA COOPERATION AND CULTURAL EXCHANGE
2010 CONFERENCE**

Virgilio M. Maguigad

Affiliations:

Assistant Professor – UP Asian Institute of Tourism, Diliman, Quezon
City

Contact details:

Office – 9818500 local 2798

Cellphone – 09088995582

Email – virgilio.maguigad@up.edu.ph ; vmaguigad@piep.org.ph

The airport as a cultural and functional showcase: Case of the Ninoy Aquino International Airport

Introduction

Nothing compares than traveling by air - the ultimate in earth bound transport that propels humans in thin aluminum tubes up to 35,000 feet into the atmosphere and let them find themselves in sometimes totally different environs a few hours later.



Photo Copyright © Paul Paulsen - AirTeamImages AIRLINERS.NET
Flying still generally evokes adventure and excitement. A plane on landing approach

That experience often begins and ends with an equally astounding human achievement in design and construction - the airport. For some, the improvements in transport has led thinkers to declare the “end of geography” and others talking about the “end of distance”. (Flyvbjerg, Bruzelius and Rothengatter 2003)

While it is generally acknowledged that airports serve an almost utilitarian purpose in pursuit of trade, governments around the world are scrambling to allocate expensive budgets in a race to create the most “cutting edge”, “revolutionary”, “inspirational” and invariably the “most modern” of airport

terminals. (Dempsey 2000) The airport has assumed prominence in infrastructure planning and budgeting for mostly economic reasons – a city’s pursuit for being a logistics and cultural hub, to support an existing tourism industry, assure adequate air transport service for big events like the Olympics or World Cup and for the most part, replace ageing facilities.

The major airport in Manila has seen two transitions in terms of location and has undergone a various reincarnations, mostly due to the demands of commerce and global trade. Have we reached this level of hubris that has been with the likes of Bangkok, Hong Kong, Incheon and Kuala Lumpur?



A sunny terminal, a sunny Philippines? NAIA 2

It assumed that airports offer the first glimpse of a country’s culture or a taste of the proverbial *dinuguan* before the banquet, the appetizer before the main course. The question is whether our own main international gateway can be considered as a cultural showcase in architecture as defined by prevailing academic and popular media discussions in the Philippines.

Is our airport ostentatious enough to be considered as an “architecture of display” that self-consciously depicts aspects of culture projected to hapless

travelers who are captive experiential consumers of the airport services? Can the existing operating terminals, NAIA 1 and NAIA 2 be considered as functional or symbolic showcases? (As NAIA 3 is excluded as it is a relatively new addition to the NAIA airport terminal system.) In what levels can these be considered as showcases?

The utility of airports

The airport can be rightly called a building that functions as a *machine* – one that provides an interface and processes passengers on its *landside* going into the *airside* where the aircraft are parked. (Wells 1986) It varies in size and capacity with some airports operating more than five runways at a time. It is a transport building that takes its role beyond the obvious utilitarian purpose it serves and celebrates physical travel, social and cultural connections.

The economic importance of an airport can't be underestimated. No metropolitan region in the world is without an airport and some even have several. Some cities even have their fortunes almost tied to that of their operating airports like Dubai and Singapore that it makes economic sense to ensure their airports remain as showcases for efficiency. The economic costs of building these new temples of modernity is reflected in the amount of monies spent in Kansai International Airport in Osaka estimated at US\$15-20 billion. (Hooper 2002)

It has been said that governments involved in mega-projects such as these gigantic airports routinely underestimate environmental impacts, overstate economic benefits and generally underestimate project financial costs in order to get them built. (Flyvbjerg, Bruzelius and Rothengatter 2003) A culture of corruption pervasive in public works projects are of course is never far behind.

In the Philippines, the country is served by existing international airports based on design standards (primarily on runway length and terminal size) – Manila, Mactan-Cebu, Davao, Clark, Subic, Laoag, new Iloilo Airport, Zamboanga and General Santos cities. More airports are set to be upgraded as a response to the call of tourism as a sustainable development strategy and the pursuit of the Medium Term Philippine Development Plan (2001-2010).



Airbridges at NAIA2 that connect the aircraft on the airside onto the landside of the airport terminal

The airport as a transport infrastructure has taken a new role as harbingers of economic prosperity of countries and as trophy projects that would be fought over by the world's leading architectural firms, especially in the late 80's up to present. New airports around the world are moving away from the idea of airports as a "machine" to that of "enablers of culture and economics". It has evolved from one that is "flexible, easily put-up, and torn down" to that of being a landmark building. (Edwards 2005)

In this vein, airport projects have become some of the most celebrated civil works projects of all time. It has attracted some of the biggest and most exciting architectural undertakings: Kansai in Osaka, Japan (by Renzo Piano), Chek Lap Kok in Hong Kong (by Norman Foster), Kuala Lumpur, Incheon, Korea and Bangkok Suvarnabhumi. All of these projects' monumentality and

grandiosity would put Imelda Marcos' Cultural Center of the Philippines Complex (CCP), the acknowledged torch bearer of Philippine "showcase architecture", to shame at least in terms of sheer size.

Ironically, the more gigantic the newly completed airport projects, the more it functions both as a machine and as enabler of cultural exchange and economics. According to Airport Council International (ACI), a total of 3.5 billion passenger movements were recorded in 2003. This translates to a total of 66.7 million aircraft movements (takeoffs and landings) that had to pass through airports. (Page and Connell 2008)

The new airport developments across the globe serve as bragging rights that firmly puts the host cities into the world's social, cultural and economic radar screen – a showcase. New airport capacity is going to be needed that the International Civil Aviation Authority (ICAO) estimates that additional investments amounting to US\$25 billion will be spent to meet demand by 2010. (Hooper 2002)



The departure hall of NAIA 1, reminiscent of the CCP Complex Lobby

Airports as cultural showcases in architecture

Brian Edwards (2005) puts it deftly, *“The airport is a cultural memory. It is the story of modernity acted out in space, speed, light and flight. National image is reflected more directly in the design of airports than any other building type, with the passenger terminal the key element in the public perception.”* It is an opportunity and a very tempting creative canvass for governments, planning agencies, architectural firms and other stakeholders to consciously mold the look of the airport according to prevailing tastes and design sensibilities. Thus, the design mantra to evoke the spirit of flying is reflected in the designs of the Chek Lap Kok and Incheon terminals of Hong Kong and Incheon, South Korea with its terminal designs seemingly like a bird with outstretched wings in flight.

The importance of defining architectural designs has taken prominence during the past two decades to underscore a majority of Asian economies' heralding of new economic might. Kai Tak airport in Hong Kong has long been overtaken by towering office buildings that surrounded the facility making it one of the scariest airports for travelers to land into and challenging for most pilots. Chek Lap Kok Airport's construction required the leveling of two small islands and reclamation of the sea to create an airport fit to cement Hong Kong's supremacy of being Southern China's hub for transport and estimated to have cost about US\$15-20 billion. (Hooper 2002) The airport project has initially been dismissed by the communists as a showcase of British imperialism as the project has been initiated and finished in 1998 before the handover of Hong Kong to China. It has been called a “fiasco” after it has not performed as expected in the few months of its operations, although that is now seen as just a start-up problem, albeit a costly one. (Flyvbjerg, Bruzelius and Rothengatter 2003)

The image of Singapore on the other hand, as a hyper-efficient city is reinforced and projected to travelers as they arrive at Changi Airport, consistently rated by air travelers as one of the most efficient and traveler-friendly. The

dominance of wood carvings, elephant motifs and the abundance of orchids in Bangkok's old Don Muang International Airport offer images of tropical exoticism that are new sights for Western tourists. Anecdotes of horror stories within and outside of New Delhi's Indira Gandhi International Airport further reinforce impressions of a nuclear power that has not fully addressed its transport backwardness.

One need not look beyond our shores to find what prevailing notions of what a cultural showcase an airport could become. The existing Ninoy Aquino International Airport had its fair share of critics. Philippine Panorama (31 July 1994) mentions in a story:

Two years ago, incoming passengers from other regional airports like Changi and Bangkok felt sad and utterly hopeless at their experience at the NAIA. Not only is our 13-year old airport international passenger terminal small and outdated, its toilets smell to high heavens! Finally the exhausted passengers had to barrel their way through a phalanx of hawkers, transport solicitors, illegal porters and dips outside of the congested arrival area. Because of these unnecessary hassles, many departing foreigners swore they'd never set foot at the NAIA anymore.

All travelers are consumers of "place" and the tourism industry that is heavily dependent on airport infrastructure can rightly be called an industry of "selling experiences". Part of selling the "tourism experience" is to ensure that seamless travel is available to visitors from the moment they arrive at the airport terminal and governments and their government-owned airport corporations, being responsible for such infrastructure, initiate these projects to ensure that such experience is sold hook-line-and sinker the moment passengers arrive. It is part of the phenomenon that is described as part of the "frictionless society" where capitalism ensures that services needed is provided at the right place, time, price and convenience. (Flyvbjerg, Bruzelius and Rothengatter 2003)

Whether for seemingly straightforward stories on passenger comfort to stories that affect perceptions on business worthiness, the Ninoy Aquino International Airport has for some reason become a showcase of various sorts. In

another story on the then newly-opened NAIA Terminal 2 by Philippine Panorama (12 March 2000):

With the NAIA 2 already in operation, air traffic in the country's premier airport has vastly improved. But this is just the first step towards making the facilities of the NAIA at par with the world's best.

It is interesting to note that after the initial awe and astonishment that new airport developments are accorded, the user-friendliness and the overall efficiency parameters take over and could sometimes overshadow the initial hoopla surrounding the opening of the airport.



The relatively new NAIA 3 (foreground) with the Makati skyline in the background

An airport therefore becomes automatically a cultural showcase by default, more so if one becomes a passenger ever given the chance to traverse the halls, gates and lounges of the facility. It becomes *the city* or in most cases, *the country* for that snapshot of a time, even for a passenger transiting to catch another flight to another part of the globe. It reveals (or hides) some snippets of a country wittingly or unconsciously to those especially in its halls.

Gerard Lico (2003b) in his book, *“Edifice complex: Power, myth and Marcos state architecture”*, offers some of the more interesting insights on architecture, while not losing sight of the fact that former President Marcos and his First Lady Imelda have used architecture to great effect in their pursuit of *“showcasism”*. He says:

Mythologizing the past needs a concrete artifact and architecture plays a major role in the mechanization of this process since it has been one of the main reservoir of long-term memory.

This has been of course in direct reference to the Marcosian obsession of establishing the Philippines, but specifically Manila as a “center for culture” in Southeast Asia. (Lico, 2003b) This has brought about the well-documented establishment of the Cultural Center of the Philippines as a showcase for Philippine culture. Can parallelism be drawn on the economic front with the pursuit of the government in making NAIA as a “hub for air transport” in Southeast Asia”? Will architecture play the *central* role in such pursuit or is it just one of the factors to *mark* its existence?

In another interpretation of architecture as showcase, Michael Pinches (1994) says that, *“it symbolically and functionally seems to address the affluent West as a statement of progress, national identity and state power. It communicates an aesthetic of development, state power and national pride...conceived something of the mystique of patronage the country’s leaders sought to fabricate around themselves...”* Also, architecture can never be an “innocent or neutral representation” of human desires (Lico 2003) as he argues that the design and the design process in *itself* is laden with human interest and belief systems on what best represents or interprets the prevailing human values.

Such statements can be dissected and applied to determine at what level the NAIA *symbolically* and *functionally* serves as a showcase considering the fact that airports have to contend with economic, business and technological realities more than that of the CCP for example, upon which the Philippine experience on

cultural showcase architecture revolves. Despite the fact that the NAIA or the airport in general become *functional* showcases, it could not particularly shake off the notion that it *symbolically* represents something more than meets the eye.

Shades of an edifice complex? : NAIA 1

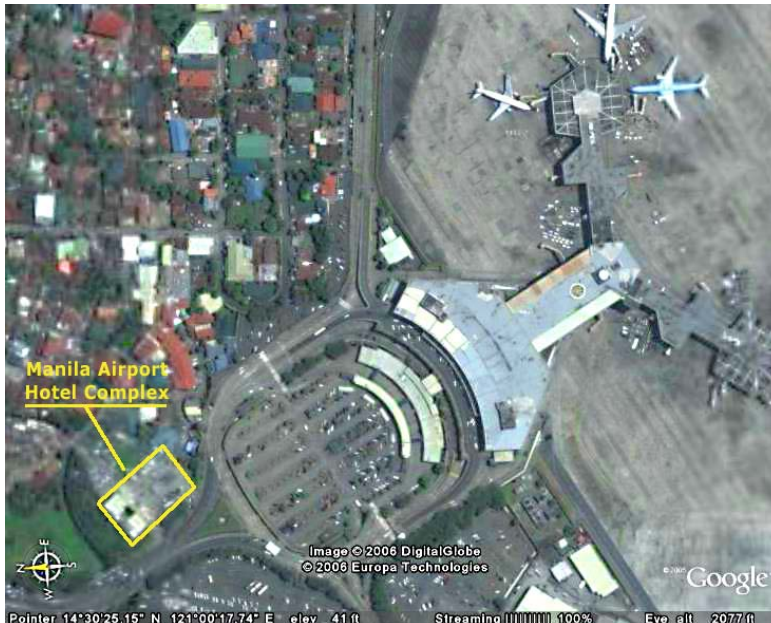
If airports are considered as functional showcases by default, would it not be far behind if such also has to culturally symbolize something?

The entire international airport complex in cities of Pasay and Parañaque is managed by an independent authority, the Manila International Airport Authority (MIAA). Before the present site of the airport, the old Nielsen Airport in Makati was considered as the country's main airport, with the present Makati and Ayala avenues as runways. After World War 2, the airport has been relocated to its present site, which was formerly a US Air Force base. In 1963, the intersecting runways, with the major runway (Runway 06-24) oriented northeast-southwest in order to take advantage of the *amihan/habagat* winds, were constructed. This is no coincidence as technical requirements of the United Nations International Civil Aeronautics Organization (ICAO) and the US Federal Aviation Authority (FAA) requires, "*that runways should be oriented so that aircraft may be landed at least 95% of the time with crosswind components not exceeding 15mph.*"

Reasons for the transfer in 1948 were fairly straightforward. The present site in Paranaque and Pasay cities was expansive enough at 630 hectares. The site has relatively flat terrain with less than 5% slope, elevated at seven meters above sea level and an existing US Air Force base runway, the present domestic runway 13-31. The main runway (Runway 06-24) has a total length of 3.7 kilometers and the secondary runway (Runway 13-31) is 2.3 kilometers long.

In 2001, the MIAA's vision for NAIA was, *"to make the Ninoy Aquino International Airport globally competitive and at par with the best airports in the world, where the facilities and services are of the highest standards and the staff is made up of professional, dedicated and caring individuals."* (MIAA 2000) In 2002, this changed to, *"The Hub of Choice of Asia."*

This change in policy direction in itself is a direct socio-economic and even political manifestation of the increasing confidence that the Manila has to retake its pre-eminent position in the Asian aviation hub competition. (Mascardo and Roberto 2004)



That funnel feeling. Aerial view of funnel-shaped NAIA 1

Work on the development of the Pasay/Parañaque site started in 1973 with a feasibility study funded by the Asian Development Bank and in 1974, the Philippine government adopted the final engineering design by the Renardet-Sauti/Transplan/F.F. Cruz consortium on a terminal design by the future National Artist for architecture, Leandro Locsin and Associates. Although the construction has started years after in 1978 and the opening four years later (March 4, 1982), it has largely escaped the critical eye of most architectural critics in terms of

branding the terminal on the same level as the CCP complex in terms of “monumentalism” and “showcasism”.

(It is interesting to note that at the same time in Manila, the Leandro Locsin-designed CCP Complex was being constructed with some sections at breakneck speed.)

In fact, there has been a total absence about the airport project in Lico’s (2003b) seminal book on Marcos state architecture. There has been an absence of a vigorous criticism that centers on the perceived *symbolic* weight that the terminal conjures. Criticism in the later years focused heavily on the functional aspects of the terminal’s design and operational capabilities, especially when operating capacity was being reached, and eventually breached.

In August 1983, a little over a year after opening, the terminal has been mute witness to one of Philippine history’s tipping point with the assassination of opposition senator Benigno Aquino who was returning from exile on board a China Airlines flight. It is for this reason that the Manila International Airport has been renamed Ninoy Aquino International Airport by virtue of Republic Act 6639.

The late senator’s blood that has been spilled on the tarmac virtually seals the fate of the Locsin-designed terminal as a historical showcase although one that is overshadowed by the likes of EDSA Shrine in Ortigas. Was this perhaps the reason why critics refuse (by omission) to attach or extend the Marcos’ “edifice complex” to this structure? Or it is for the simple reason of the terminal’s relative accessibility and economic utility to the traveling masses that somehow “washes the sins” of the patron?

Architecturally, it has been described “as an extension of the CCP Complex” (Mascardo 2003) perhaps due to similarities in design. It follows the

dictum, “function follows form” and rightly so because it functions like a funnel from the main departure/arrival halls onto the departure and arrival gates.

The elevated approach from the Ninoy Aquino Avenue to the departure area evokes the similar approach of the CCP complex from Roxas Boulevard. The feeling of a “massive overhang waiting to collapse” but somehow defies gravity by way of cantilevering at the departure level is quite similar to the feeling when one is at the Philippine International Convention Center. For an airport terminal, the design evokes less of the expectation of flight and seems to content on hugging the ground.



That heavy feeling: the massive effect of a column-free departure area similar to that of the CCP complex buildings

Despite being “Filipino culture-based”, the original design of the building ironically failed to consider the *hatid-sundo* culture of Filipinos. (Mascardo and Roberto 2004) The departure area is too small for car-dependent send-off/*hatid* parties and these are promptly shooed away by guards. The arrival hall is too small so much so that an arrival extension hall has been constructed outside the terminal building area in order to better accommodate the arrival/*sundo* parties.

Functionally, it has been unable to keep up with the continued upswing of international travel in the Philippines. It was originally conceived to handle a nominal annual capacity of 4.5 million passengers and was breached in 1991.

According to Atutubo (2007), perception of congestion in airport terminals starts when 85% of design capacity is reached. The entire NAIA Complex (NAIA terminal 1, 2 and the Domestic Terminal) is currently operating at 135% of design capacity and even with the opening of the contentious Terminal 3, the NAIA complex will still be operating above the perceived congestion threshold. Despite the breaching of the original design capacity, improvements and the “tweaking” of the original design, the nominal capacity of NAIA 1 has been increased to 7.5 million passengers per annum (Aeroports de Paris, 1996)

The showcase mentality does not end however (or just plain economic expediency) when Terminal 1 will be closed and the NAIA Complex will be downgraded when the Diosdado Macapagal International Airport will be primed as the new gateway for Luzon by 2015-2020. Plans are afoot to convert the complex as the “NAIA Business City- where the best deals take-off and land”. (MIAA 2000)

Given the intertwined fate of the airport as a historical building and a transportation hub, the NAIA Terminal 1 therefore symbolically stands as showcase both by default and as a result of a conscious strategic corporate effort by *any* sitting Philippine government in order for it to succeed on what it was designed to do.



Inside looking out, a ground-hugging NAIA1

A functional *and* design showcase? – NAIA 2

The economic and level-of-service pressures on the overburdened NAIA 1 had led to the hiring of Aeroports de Paris to conduct new studies on the future developments of the NAIA Complex in 1989/1990. Again, the economic importance of upgrading the facilities were the paramount concerns of the MIAA during the time and by 1995, the construction of NAIA 2 began. The terminal was designed primarily as a stop-gap measure to siphon off excess international passengers from NAIA 1 and excess domestic passengers from the equally congested Manila Domestic Terminal.

The nominal design capacity has been reduced to 7.5 million passengers per year (5 million/year for domestic and 2.5 million/year for international passengers). The original purpose of turning this terminal into a purely domestic terminal will be realized when Terminal 3 just across runway 13-31 will be opening possibly by end-2008.



The airy and light-suffused corridors leading to air bridges of NAIA 2

More than the functional rationality of the way the NAIA 2 has been designed is the refreshing welcome that the building has been accorded by the traveling public as well as the media. In a study conducted by the Japan Bureau of International Cooperation (2002) of frequent fliers, it has found the following results:

Two-thirds of both international and domestic passengers were aware that the waiting times have been reduced for the departure check-in period, for landing and baggage retrieval, and 60% to 90% of the passengers appreciate NAIA 2's higher service level. The improvement in service is perceived more on arrival than departure, more by domestic passengers than by international travelers.

Does this mean that the NAIA2 has become a cultural showcase of efficiency and better service for a traveling public that has so long endured the bus terminal-like confines of the Manila Domestic Terminal?

Aside from the perceptions of service efficiency, the NAIA 2 has also been a showcase of sorts for its refreshing use of the natural Philippine light in the overall design concept. It is light-flooded with the entire structure seemingly welcoming the sunny Philippine climate by letting the light in and keeping the heat out. According to the MIAA, this has in fact reduced electricity consumption compared to the older NAIA 1, although this is partly due to the fact that many of the new facilities are more energy efficient.

The design primarily evokes an international feel that wouldn't be out of place if the terminal had been operating in France. However, the design of NAIA 2 took into consideration the *hatid/sundo* culture of Filipinos by integrating a bigger area for well-wishers. Incorporated into the design was a passenger to send-off and welcoming party ratio of 1:6 that was not incorporated in the original design of NAIA 1. (Mascardo and Roberto 2004) This is perhaps a prime example of a showcase in functional efficiency.

NAIA 2 symbolically represents a country that is open, culturally sensitive and transparent while NAIA 1 represents one that stays close to its roots and

unchanging. Indeed, one can transplant NAIA 2 into the Makati or Ortigas setting and wouldn't be out of place in the same way that NAIA 1 can always fit into the generally heavy-set buildings of the CCP complex. Design, while important for landmark buildings such as airports however become subservient to more functional concerns as passenger comforts, convenience and capacity to process the throngs of travelers who "consume" the place.

Increasingly, terminals like NAIA 2 are guided by the fact that travelers need to get to and from their destinations in as much little "friction" as possible on the ground. This friction is created when facilities that are meant to ease passenger mobility create problems on the said mobility. NAIA 2 has not been spared as the former design of the stairwells going to the arrival area (typically on the first floor of the building) did not include escalators. The design oversight had been corrected with the installation of the needed escalators.



A showcase of efficiency: NAIA 2 is generally preferred over NAIA 1 by most travelers

The open, light-permeable glass curtain walls while not unique to the Philippines has raised the bar of transport terminal design. However, such design is always and would always be subject to the more pressing operational and capacity issues, concerns and problems that would surely be encountered as air passenger growth continues in the Philippines.

Ironically though, the maintenance of such service standards for both NAIA 1 and NAIA 2 lies in their relationship as two functional terminals that are designed to function as a system. If not for the additional capacity of the NAIA 2, NAIA 1 would forever be condemned and ridiculed for congestion and backwardness, no matter if it was designed no less than by a national artist. On the other hand, had NAIA 1 been closed and all operations transferred to the new terminal, NAIA 2 would have suffered the same fate. Indeed, the buildings had to deliver their intended purpose, with the architectural design becoming merely an amenity to be enjoyed.

Conclusion

Airports are de facto showcases for most countries and all perform the same functions as transport terminals. However, it could not be insulated from the visions of the governments that created it. The buildings stand for the embrace of travel as social, cultural and economic necessities and airports have become symbolic, stood witness and responded to the political and the all-too pervasive economic pressures that airports have to play in the life of a country.

NAIA 1 is symbolic and witness to the country's Martial Law past while NAIA 2 presents a vision of what the country could possibly be – clean, bright and efficient. In both cases, the existing operating NAIA terminals functionally and symbolically represent what is Filipino in terms of experience, culture and responsiveness to the world that is literally flying into and out of the country.

It is to be emphasized however that although these terminals have been created by almost divergent design sensibilities of a Filipino architect and a French airport terminal corporation, both have to be subjected to the operational, cultural and political dynamics that is inherent in the operations of an airport. Design showcases as they are in their own right, play second fiddle when uncomfortably too many passengers pass through the arrival and departure halls,

board the aircraft gates, park their cars or even use the toilets. Function *and* design, in that order dictates how passengers – the ultimate and the most direct stakeholders of the said terminals are to determine if such become cultural showcases or not.

References

Aeroports de Paris. (1996) *Ninoy Aquino International Airport Master Development Study (Final Report)*, Manila: Aeroports de Paris

Atutubo, V. (Speaker). (September 2007) *Aviation Security Management*. Paper presentation at the 2007 Tourism Educators of Schools, Colleges and Universities (TESCU) Convention at Trader's Hotel Manila

Dempsey, P.S. (2000) *Airport planning and development handbook*. New York: McGraw Hill-Professional

Edwards, B. (2005) *The modern airport terminal: New approaches to airport architecture*. Taylor and Francis Publishing

Flyvbjerg, B; Bruzelius, N.; Rothengatter, W. (2003) *Megaprojects and risk: the anatomy of ambition*. Cambridge University Press

Hooper, P. (2002) '*Privatization of airports in Asia*'. *Journal of Air Transport Management*, 8(5): 289-300

Japan Bureau of International Cooperation. (2002) *Ninoy Aquino Airport Terminal 2 Development Project*. Tokyo: Japan Bureau of International Cooperation

Lico, G. (2003a) *Designing Modernity and Constructing the Spaces of identity: Tropes of the Philippine in Modern Architecture*. In Bulawan 9: Journal of Philippine Arts and Culture, National Commission for Culture and the Arts (pp. 27-47)

Lico, G. (2003b) *Edifice complex: Power, myth, and Marcos state architecture*. Quezon City: Ateneo de Manila University Press

Maguigad, V. and Sabio, A. (2004) *Ninoy Aquino International Airport Complex- A Typology Study*. A group paper submitted to master's site planning class. Quezon City: University of the Philippines – School of Urban and Regional Planning

Manila International Airport Authority, Corporate Management Service Department. (2000) *Ninoy Aquino International Airport Master Plan Development Study (Update Report)*. Pasay: Manila International Airport Authority

Mascardo, L. and Roberto (2004) Manila International Airport Authority, interviews conducted on February 2004

Page, S., Connel J. (2008) *Tourism: A modern synthesis*. London: Thomson Learning

Pinches, M. (1994) *Modernization and Quest for Modernity: Architectural Form, Squatter Settlements and the new Society in Manila*. In M. Askew and W. Logan, (eds.). *Cultural Identity and Urban Change in Southeast Asia: Interpretative Essays*. Deakin University Press. (pp 13-38).

Wells, A. (1986) *Airport Planning and Management*. TAB Books

Zapanta, A. (2005) *100 Years of Philippine Aviation (1909-2009): A Focus on Airline Management*. ALZ Publishing

_____. (1993, March 16) Government plans to make NAIA one of world's best. *Manila Chronicle*

_____. (1993, March 16) NAIA to be world class airport . *Manila Bulletin*

_____. (1993, June 16) NAIA: culture defeats infrastructure. *Manila Chronicle*

_____. (1994, July 31) NAIA: In the midst of evolving into world class airport. *Philippine Panorama*

_____. (2000, March) Enhancing NAIA as world class int'l gateway. *Philippine Panorama*

_____. (2003, May 12) Fraport at wits end over NAIA 3. *Philippine Graphic*