Urban Conservation as a Development Strategy to Revitalize Real Estate Market: An Analysis of Property Transactions in Georgetown Penang

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Abstract: Penang is well known for its heritage character especially in the city of Georgetown with more than 200 years of urban history. To retain its heritage character, the state and local governments have implemented various conservation policies and identified a heritage zone in the inner city of Georgetown. In many parts of the world, designation as a heritage property would have increased a property's value and this is one of the reasons put forward for urban conservation in Georgetown but so far no analysis have been presented to support this claim. We developed an all-encompassing model to evaluate the effects of conservation related policies on the heritage property market. In this paper, we focus the analysis on data from property transactions and price to analyse and identify property trends in Georgetown from the year 1974 to 2004. The analysis is presented within the framework of public policy and intervention strategies, socio-economic and political changes. Our analysis of the transaction data and price trends shows that urban conservation has a potential to be a viable real estate development strategy for Georgetown. Even with conservation policies in place, the demand for old buildings in the conservation zones has not diminished but has shown relatively high transaction counts and high price of heritage properties.

Keywords: Property trends, Heritage property, Penang

INTRODUCTION

With an urban history of more than 200 years, Georgetown, the capital city of Penang is well known for its heritage buildings which includes about 5,000 units of two- or three-storey traditional shophouses where the residents used to work downstairs, typically in their family business, and live

upstairs. However, what was once a bustling commercial district, the inner city of Georgetown, has declined to where many buildings are now dilapidated and empty. Its residents have moved to the newly developed areas on the island and mainland of Penang. This population shift has affected the traditional businesses and the inner city is losing its place as a commercial hub.

Nevertheless, the local government recognizes the heritage value of the city and in an attempt to preserve its

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historic ambience. Penang state and local governments have adopted various heritage conservation policies for the inner city of Georgetown. Heritage conservation zones within the city were designated in a Draft Structure Plan as far back as the early 1980s and specific design guidelines for conservation zones were published in 1987. In 2005 however, the conservation zones were reduced in size from the previous 193-hectare core heritage zone to 99 hectares while the 246-hectare buffer zone was reduced to 89 hectares (Habibu, 2004). The designated conservation zones were identified as part of an application for United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Listing. An earlier bid was not successful in 2006 and a subsequent bid will be submitted in 2007.

Experience in other countries shows that urban conservation typically produces numerous benefits and positive results (Kong and Yeoh, 1994; Shipley, 2000; Leichenko et al., 2001; Ling et al., 2004). Urban conservation reduces urban sprawl and the creation of new towns by revitalizating old towns and the adaptive reuse of the old buildings. As heritage cities, old towns also generate more business and working opportunities. In designated historical areas, property values usually increase due to cultural pride and historical significance, which ultimately increases tax revenues (Warner et al., 1978; Groff and Weiss, 1978; Rypkema, 1994; Childs et al.,

1997). In Singapore and the US, urban conservation has helped to increase the value of heritage properties (Yuen and Ng, 2001; Pickard and Pickerill, 2002). Has the same benefits been brought to Georgetown, Penang as a result of the conservations efforts of the last 20 years? To answer this question, our objective in this paper is to determine whether the heritage conservation policy adopted by the local government has brought positive results to the real estate market in Georgetown.

LITERATURE REVIEW

Urban conservation as a development strategy which is incorporated in land-use planning and zoning has gained popularity throughout the world since the last century. The first description of building conservation policies can be traced to 1877, in William Morris's *The manifesto for the society for the protection of ancient building*. Other well-known conservation doctrines include The Venice Charter (1964), The Florence Charter (1981) and International Council on Monuments and Sites (ICOMOS) Charter – *Principles for the analysis, conservation and structural restoration of architectural heritage* (2003). These charters define the purpose and principles of building conservation.

In Section 2 of the Malaysia National Heritage Act 2005 (Act 645) the definition of conservation includes

preservation, restoration, reconstruction, rehabilitation and adaptation or any combination thereof. The Malacca Enactment No. 6 (1988) and the Preservation and Conservation of Cultural Heritage Enactment (1988), define conservation as a process of looking after a cultural heritage or a conservation area so as to retain its significance, including its maintenance, preservation, restoration, reconstruction, adaptation or a combination of two or more of these.

According to Feilden (2003), the purpose of conservation is to prevent decay and manage changes dynamically and this is not limited to a building or a site only. Urban conservation is not merely to conserve the building but to preserve the whole ambience including cultural significance (Thorsby, 2002; Cohen, 2001). Urban conservation is also about how people live, work and play in an area, as described by Tan (2006):

How they live is inextricably linked to (historical) buildings; buildings that house their alondes; buildings where they earn their living; buildings whose shape, size and locality form the essence of their lives and how they carry it out.

As a rationale for building conservation, in the end purely aesthetic grounds or historical justification for isolated examples of architecture will not create as much coherence as by bringing conservation into the urban context (Cohen, 2001). In this way, urban conservation results in more comprehensive city planning (where a historical site located) and can help sustain both the historica site and city development.

Different conservation experiences have been observed and practiced successfully in US, Canada, UK, Japan, Australia and Singapore. According to Shankland (1975), in order to succeed, urban conservation must be economically and socially feasible and to achieve this requires both governmental and public action. Following Shankland, we define a viable real estate property market by an increase in the number of property transactions as well as an increase in the value of the properties traded. Thus, a viable real estate development strategy is a strategy that can accelerate the property market and bring profit to the investor.

Generally, the impacts of urban conservation policies are wide-ranging and influences the economic, social, cultural and environmental aspects of a community (Rypkema,1994; Pickard and Pickerill, 2002; Leichenko et al., 2001). The impacts can be seen individually or in groups, either to a community or a state. Some impacts do not automatically transform communities into high-income enclaves, but enhance the climate of the present situation or perhaps the future situation (ripple effect). The impacts

from conservation can also be structured into direct or indirect. Whether the structure is direct or indirect, the linkages may bring different impacts to the development of a historic town. If the impacts retard the conservation efforts, it will be regarded as negative impacts. On the other hand, the impacts that contribute to the conservation efforts are seen as positive impacts. Table 1 summarizes the various impacts of urban conservation.

The impacts can be seen to be wide-ranging but for the purposes of this paper, we draw attention to research which have shown that in designated historical areas, property values will increase due to cuitural pride and historical significance. Studies by Scribner (1976) and Reckham (1977, as cited in Thorsby, 2002) found that property values increased due to heritage designation, presumably because investors were interested in such buildings, and there were now prospect of good returns. This reinvestment will indirectly bring occupants and economic activity into areas with old buildings designated as conservation zones. This in turn will ultimately increase tax revenues (Warner et al., 1978; Rypkerna, 1994; Childs et al., 1997).

Urban conservation also helps to reduce urban sprawl and reduce the creation of new towns through the revitalization of old town and adaptive reuse of the old buildings. This is more sustainable than to open new land

because in the old town, basic infrastructure and the amenities are established. Delaying the need to build new towns is also a good practice for sustainable development by preventing extensive clearing of forested areas for urban expansion. Another often cited benefit is that designation of conservation areas or town attracts more tourists. In Singapore, tourists prefer and are willing to spend and visit historical areas such as China Town and Little India (Yuen and Ng. 2001). These tourists preference may, in turn, boost other tourism related activities such as real estate and local businesses.

In the developing countries however, conservation is only a minority interest compared to other urban asset development (Pearce, 1989; Kong and Yeoh, 1994). In fact, conservation is more often seen to be an obstacle to urban real estate development. It is acknowledged that if a building is old and deteriorating, some of its archaic services may affect its value because the cost of preservation and restoration will be high. If a building is protected to some extent by public policy, then the accompanying restrictions on renovation and building use may affect the property's value and marketability. In addition, heritage buildings by definition incorporate intangible values due to culture and architecture character. These intangible values are very hard to price monetarily (Pickerill, 1997; Thorsby, 2002).

Table 1. Various Impacts of Urban Conservation

Impacts Tangible/ Intangible Values	Direct	Indirect
Economic	Create jobs – contractor, labour, tourist guide. hawkers, etc. Increase property value Increase rental increases Boost tourism Incentives from government	 Increase personal/aggregate of income/GDP Increase tax Decrease development cost Decrease fund for basic infrastructure Spread benefits over neighbourhood (e.g. property value increase)
Socio-cultural	 Consolidate/create sense of community Conserve knowledge and skill Raise awareness of history continuity Raise appreciation of heritage buildings 	Increase populationMore diverse community
Physical/man-made environment	 Improve/upgrade infrastructure New image after revitalized, refurbish and maintenance Efficient use of the city spaces Existing housing/commercial stocks (no need to build new) 	 Less pollution (pedestrian oriented development) Less urban sprawl Deter future potential investment return Not flexible for incorporation of modern infrastructure
Politics	 Strict policy building codes and planning permission deter modern development Provide incentives/ievy 	More regenerationsLess development in historic urban areas

What is the basis then, to measure the impact of conservation on real estate? Researchers have shown that the impact of conservation on real estate market can be dictated by the level of property values in conservation districts. There are at least six different approaches to measure property values in designated conservation districts. A summary of the methods used by other researches is shown in Table 2.

Of all the methods in Table 2, cost-benefit analysis can be used to assess the economic or cultural value of property values in conservation districts. However, it is very complex and need to consider many factors before deriving a value composite (Klamer and Zuidhof, 1999). As for the contingent valuation method, it tends to measure the intangible values which do not reflect in monetary gain such as the historical value, educational value or communal memories. Through questions on willingness to pay, the value of heritage property can be determined; but bias could happened where the respondents may not reveal their real preferences in the interest towards heritage properties (Thorsby, 2005).

Travel cost method attempts to deduce expenditure for the journey to a conservation area by individual. Base on assumptions, it only draw the cost of travel but does not take other factors into consideration (Pagiola, 1996; Thorsby, 2005). Similarity of value assessment is found in the

maintenance cost method where only the material damages of the historical building or site are estimated, but other factors are not taken into account (Mourato and Mazzanti, 2002).

In the Hedonic regression model, the heritage property price is made up by a bundle of attributes whereby the hedonic price changes when the quality of relevant attributes change. According to Pagiola (1996), the limitation of the method includes the mismeasure of the benefits, difficult to distinguish the non-physical attributes and need a large amount of data to gain significance.

Difference-in-difference is another popular method employed by researcher such as Scribner (1976); Reckham (1977, cited in Leichenko et al., 2001), and Gale (1991). Basically, this method measures the changes in property values within and outside the selected conservation districts. The higher the property price shows in the conservation designated district, the more significant of the effect of conservation within the district. But Leichenko et al. (2001) argued that this method is bias by relying solely on comparing the physical characteristics, for example the sample averages of the growth rate in property values in conservation designated district and non-conservation designation district.

Table 2. Summary of Methods Used to Measure Heritage Property Values

Study Method	Data	References
Cost-benefit analysis	Tangible values versus intangible values	Klamer & Zuidhof, 1999; Thorsby, 2002
Contingent valuation method (state preference method or paired comparison)	Question on willingness-to-pay for the benefits received (from conservation) or willingness-to-accept compensation for the loss (from conservation)	Ling et al., 2003; Thorsby, 2005
Travel cost method	Amounts that are prepared to pay for journey to a conservation area, e.g. how much did the visitor spent to visit the conservation zone and the financial outlay involved	Pagiela, 1996; Clawson & Knetsch, 1966 (cited in Mourato & Mazzanti, 2002); Thorsby, 2005
Maintenance cost method	The material damages of the historical building or site are estimated	Meurato & Mazzanti, 2002
Hedonic regression model	The heritage buildings or historical site is broke up into constituent characteristics/attributes, and obtains inferences of the values of each characteristic/attribute	Pagiola, 1996; Leichenko et al., 2001
Difference-in-difference methodology	Compare a treatment and a comparison group (first difference) before and after the intervention (second difference) e.g. compare sample averages of the growth rate in property value (first difference), in historic areas with those in non-historic areas (second difference)	Scribner, 1976; Reckham, 1977 (cited in Leichenko et al., 2001)

From Table 2, we can conclude that there is no standard method to determine the actual value of heritage property as a tool to measure the impact of conservation. As such, the selection of a suitable method for measuring the impact of conservation in Georgetown must also consider the objectives of the study and the types of data that are available. This paper presents on analysis of property transaction data and price trends as one method to understand such impacts.

RESEARCH METHODOLOGY

We developed an all-encompassing model to evaluate the effects of variables on the values of heritage properties. Our study area is the inner city of Georgetown, shown in Figure 1. We used a combination of qualitative and quantitative research methods, to analyse the patterns and trends of property transactions and values over time which will lead into determining the impact of conservation on real estate market. In order to analyse the patterns and trends of property transaction and values, we collected trend data for a period of 30 years from the year 1960 to 2004. These are the data that were available at the time of analysis. Furthermore the data cover the introduction of conservation policies and also the rent control act.

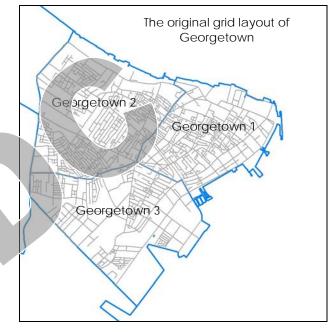


Figure 1. Study area - The inner city of Georgetown

We collected two main types of data for this analysis. First, data on policy implementation was gathered from Malaysian laws, government publications such as structure plans, and the Bank Negara annual reports. The policies collected include conservation-related acts and the government development policies, strategies and

guidelines from 1960 to 2004. In addition, we also collected information on socio-economic, political and cultural changes for the same time frame. Second, data on property transactions were collected in digital form from the Penang State Valuation and Property Services Department (Jabatan Penilaian dan Perkhidmatan Harta, JPPH). The files contain some 35,000 records of property transactions on Penang Island which were assessed by JPPH Penang from 1998 to 2005 for the Inland Revenue Board (IRB) to facilitate collection of property taxes. Data prior to 1998 were obtained from the Annual Property Market Reports published by the same department. Records of transactions between developers and first buyers and of transactions that were exempted from stamp duty are not included in this data set.

The raw data from JPPH Penang was subjected to extensive checking and management by this research team to create a data set suitable for this study. Problems encountered include inaccuracy of data, missing or incomplete data and typographical errors but this comprised only a very small portion of the data.

We have analysed the count of transactions and transaction values according to the types of properties. Descriptive statistical analysis using frequencies, average, highest and lowest values were used to analyse the trends.

The results were then fed into timeline charts to identify property and policy trends in the study area.

IMPACT OF POLICIES ON REAL ESTATE MARKET

Despite of the numerous problems encountered with the data, we found it to be the most reliable and after considerable cleaning, it remain the most complete source on the real estate market in Georgetown. We therefore used it to analyse the heritage property market for our study area. We assumed that these data provide a reasonable representation of the impact of designating structures as heritage buildings once such a designation is in place.

Figure 2 shows the count of transactions of heritage properties within the study area (1974–2004). We have also charted conservation related policies and major economic changes onto the figure. Major conservation related policies are like The Control of Rent Act 1966, 21st Century Penang Strategic Plan and the designation of five conservation zones in Georgetown.

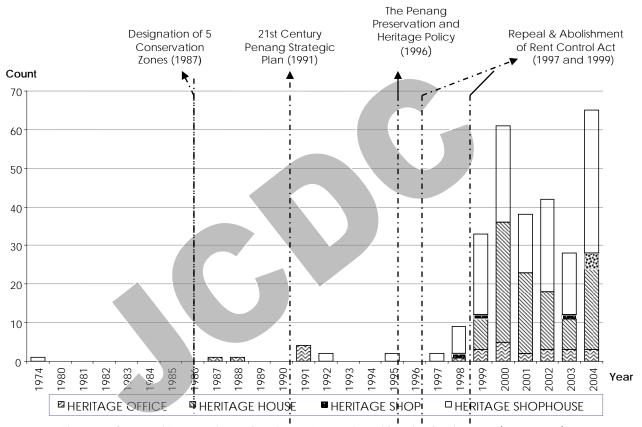


Figure 2. Count of Transactions of Heritage Properties within the Study Area (1974–2004)

Source: Department of Valuation and Property Services

Note that the five conservation zones were designated in 1987. Interestingly, in 1987 and 1988, there were few transactions for heritage properties compared to none, in the preceding years. The next transaction occurred in 1991 when the 21st Century Penang Strategic Plan was unveiled. From 1999 to 2004, there were numerous activities in the transaction of heritage properties. The 1966 Rent Control Act was repealed in 1997 and abolished after 1999.

The Rent Control Act 1966 was initially implemented by British in 1948 to the pre-war properties (Khoo, 1997; Tan, 2002) to cater the needy people during post-war period (World War II). It also aimed at protecting the teriants from eviction by controlling the rental. The repeal of Rent Control Act 1966 stops the abuse of further subletting of the controlled properties and restore the possession of the controlled premises to the landlords (Lawyerment, n.d.).

The increase in transactions for heritage properties began in 1998, a year after the severe financial crisis that hit Malaysia and the beginning of repeal of Rent Control Act 1966. The transactions for heritage properties shot up in 1999 and rose to an even higher level in 2000. The number of transaction dropped somewhat between 2001 and 2003 but increased in 2004.

The above analysis shows that between 1974 and 2004, the transactions count for heritage buildings was varying with periods of activity and periods of total inactivity. However the analysis shows that whenever conservation policies were put in place, there were some market activities which are evident through the count of transaction. Nevertheless, this market activity was not sustained for a longer period. In addition to the transaction counts, we looked for further evidence that may point to the impact of urban conservation on real estate market to support this initial finding.

Orie of the evidence which we investigated was the price of pre-war shophouses which is one of the main targets for urban conservation in Georgetown. Figure 3 shows the prices of two-storey pre-war shophouses with vacant possession. The price of the pre-war shophouses rose during the 1981–1984 period but dropped by as much as 17% to 47% in 1986. Thereafter, the average price of pre-war shophouses increased from 1988 to 1997 except in 1994 when it decreased slightly. Note that during this period, there were two conservation related policies that were put into effect: the designation of the five conservation zones in 1987 and the 21st Century Penang Strategic Plan in 1991. The highest price paid for a pre-war shophouse reached a peak in 1997 at RM6,000 per m² with

the average price at RM4,000 per m² that year. This increased was coincided with the Penang Preservation

and Heritage Policy which was formulated in 1996. The formulation of the policy may have encouraged investors

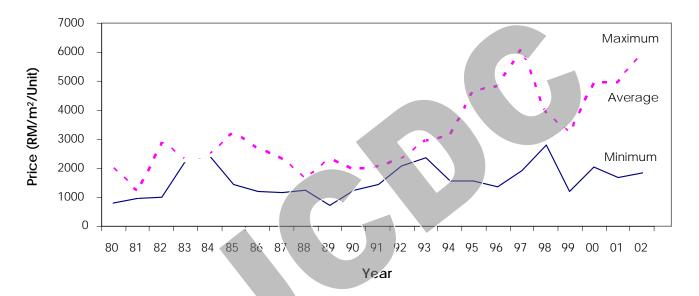


Figure 3. The Prices of Two-storey Pre-war Shophouses in the Study Area with Vacant Possesion Source: Computed from Property Market Report 1980–2002, DVPS

to invest in heritage-designated properties. Having a formal policy gives investors clear guidelines regarding the status of the building and provides expectations for some economic returns from the historic building or from related activities that may be conducted in its vicinity.

However, the price started to fall in 1998 and 1999 due to the economic crisis. According to the Property Market Report 1999, the price of pre-war shophouses dropped drastically by as much as 54% that year. After 1999 the price rose again and it declined in 2001, before it started to recover in 2002. The above evidence suggests that even though there was fluctuation in the price of the pre-war shophouses, the market was able to sustain its previous high price and enjoyed an upward trend. More importantly our analysis shows that even when conservation policies are introduced, the demand for the properties, in terms of transaction counts and price, can still be maintained.

Another important issue we need to address is whether the market for pre-war shophouses was affected by the Rent Control Act. In order to determine this, we compared the prices of the pre-war shophouses and post-war shophouses in the study area. Figure 4 shows the prices of the two-storey pre-war shophouses and the two-storey post-war shophouses in Georgetown over a period of 23

years from 1980 to 2002. Generally, the overall trend of prices for the post-war shophouses and pre-war shophouses are almost the same, with 10% variations both upward and downward, observed in certain year.

Before 1988, the prices of pre-war shophouses were slightly lower than post-war shophouses. The Rent Control Act 1966 placed a ceiling on the total rent which could be charged by the property owner. This fixing of rent which was way below market level had reduced the owners' interest to preserve and maintain these old houses to "cut losses". In addition, rent control was viewed as a tax on the profits of property owners, or a tax on the return to the capital. Therefore these pre-war shophouses were unattractive to investors.

Interestingly, between 1988 to 1995, the price for prewar shophouses was slightly higher than post-war shophouses. The pre-war shophouses became more popular among the buyers and the demand of pre-war shophouses was consistently good. There was an excess in demand for the pre-war shophouses due to low rents below the market level. In addition, the pre-war shophouses offered more option such as strategic locations at the city centre and relatively cheaper asking prices owing to their older or poorer physical condition (Property Market Report, 1988). This phenomenon of over-demand of

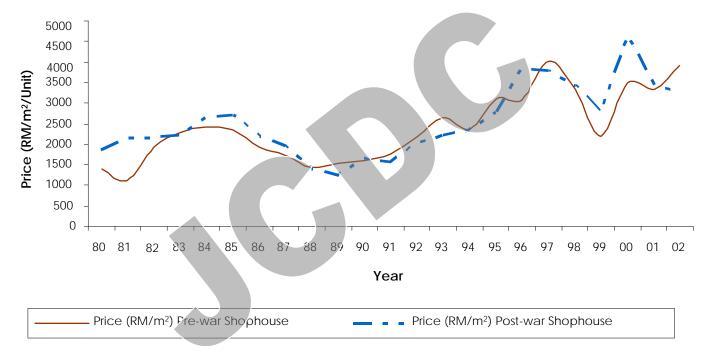


Figure 4. The Prices Between Two-storey Pre-war and Two-storey Post-war Shophouse in Georgetown Source: Computed from Property Market Report 1980–2002, DVPS

pre-war shophouses was maintained until 1996. Due to the limited quantity of the pre-war shophouses, the buyers shifted their interest to the post-war shophouses (ibid., 1996).

In 1997, the prices of pre-war shophouses in the central business district of Georgetown increased over the prospect of securing vacant possession within two years' time due to the repeal of the Rent Control Act 1966. The price ranged from RM750,000 to RM850,000 for units with vacant possesion in the Georgetown (ibid., 1997).

Between 1998 to 2001, the performance of property market was affected by economic crisis. The retail property market lacked the luster of the 1997 performance in addition, the price of pre-war units was jower than postwar units because of the oversupply of pre-war units as a result of the repeal of the Rent Control Act in 2000. According to the Property Market Report (2001), the prices of pre-war shophouses dropped by up to 10% in Georgetown due to the substantial supply of these units being decontrolled following the repeal of the Rent Control Act. Many of these shops were still vacant after being vacated by the previous statutory tenants.

After 2001, the price of pre-war shophouses increased higher than post-war. Interestingly, the prices of pre-war shophouses show an upward trend. Pre-war shophouses were said to be attracting small specialize businesses such as professional firms, travel agency, money changes, etc. moving into the city centre. This is in contrast with the price trend of post-war shops, which saw a noticeable fall. The interest and competition from the large supply of pre-war shops in central business district are said to be the main reasons for the downward trend. Further evidence from the Property Market Report (2002) shows that the transaction volume for post-war shophouses in Georgetown has dropped, compared to the previous years.

Contrary popular belief that the Rent Control Act had badly affected the property market in Georgetown, the analysis above suggest that pre-war shophouses enjoyed active transactions. After the act was introduced, the transactions count and the price of pre-war shophouses continued to rise, especially from 1988 to 1997. After the repeal, despite of the over supply, the prices of pre-war shophouses were still on the rise.

CONCLUSION

Our findings concur with the researches conducted in various parts of the world which found a positive relation between conservation policy and property value. Two observations can be made from this study. First, even though there was fluctuation in the transactions count and the price of the pre-war shophouses, the market was able to sustain its previous high price and enjoyed an upward trend. Second, there was no clear evidence that the market for pre-war shophouses was affected by the Rent Control Act. The overall trend of prices for the post-war and the pre-war shophouses was almost the same with 10% variations in both upward and downward observed for certain years.

This study indicates that urban conservation has a potential to be a viable real estate development strategy because even with conservation policies in place, the demand for old buildings in the conservation zones has not diminished. This can be seen by relatively high transactions count and high price of heritage properties. Such activity augurs well for the real estate market and may eventually contribute to the success of the efforts being made to revitalize the inner city of Georgetown.

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REFERENCES

Ball, R. (1997). Industrial heritage, tourism and old industrial building: Charting the difficult path from redundancy to heritage attraction. www.rics.org/NR/rdonlyres/ D8FCE8D0-46A6-4084-9E42-52B5F5609A65/0/industrial_heritage_ tourism _and_old_industrial_buildings_19970101.pdf/ (Accessed 6 January 2005).

Bank Negara Malaysia. (1993–2003). *Annual Report of Bank Negara Malaysia 1992.* KL: Public Bank Affair Unit.

- Childs, R., Greenstreet, D. and Witt, T.S. (1997). *Economic impact of historic preservation in West Virginia*. www.be.wvu.edu/serve/bureau/reports/historic/historic.pdf/ (Accessed 14 June 2005).
- Clarion Associates of Colorado, LLC, BBC Research and Consulting & Place Economics. (2002). *The Economic Benefits of Historic Preservation in Colorado: Technical Report.* www.coloradohistory-oahp.org/publications/1620.htm (Accessed 14 June 2005).
- Cohen, N. (2001). *Urban Planning Conservation and Preservation*. NY: McGraw-Hill Professional.
- Feilden, B.M. (2003). *Conservation of Historic Buildings.* MA: Elsevier.
- Gale, D.E. (1991) The impacts of historic district designation: Planning and policy implications. *Journal of the American Planning Association*, 57: 325–340.
- Habibu, S. (2004). Protecting heritage zone. *The Star Online*. 21 December 2004. 202.186.86.35/news/list.asp?file=/ 2004/12 /21/nation/9712627&sec=nation/ (Accessed 15 June 2005).
- Klamer, A. and Zuidhof, P.W. (1999). The values of cultural heritage: Merging economic and cultural appraisals in economics and heritage conservation, a meeting organized by the Getty Conservation Institute. www.getty.edu/conservation/publications/pdf_publications/assessing.pdf/ (Accessed 15 April 2006).
- Ling, R.W., Revier, C.F. and Sable, K. (2004). Estimating the public good value of preserving a local historic landmark: The role of non-substitutability and citizen information. *Urban Studies*, 41(10) (September 2004): 2025–2041.

- Khoo, B.T. (1997). *The repeal of rent control: Requiem fo Gerakan.* www.aliran.com/oldsite/monthly/2000htm/ (Accessed 5 May 2005).
- Kong, L. and Yeoh, B.S.A. (1994). Urban conservation in Singapore: A survey of state policies and popular attitudes. *Urban Studies*, 31(2): 247–265.
- Lawyerment. (n.d.). Estate law landlord/tenant. www lawyerment.com.my/real_estate/lt.shtml/ (Accessed 6 January 2005).
- Leichenko, R.M., Coulson, N.E., and Listokin, D. (2001). Historic preservation and residential property values: An analysis of Texas cities. *Urban Studies*, 38(11): 1973–1987. geography.rutgers.edu/people/faculty/leichenko/leichenko coulson listokin2001.pdf/ (Accessed 14 June 2005).
- Lipman, F. and Mitchell, L.L.C. (2002). State of Maryland heritage structure rehabilitation tax credits. Economic & fiscal impacts. www.preservemd.org/txcrstudy1.pdf/ (Accessed 6 January 2006).
- Listokin, D., Lahr, M. and St. Martin, K. (2001). *Impacts of historic preservation in Missouri.* www.dnr.mo.gov/pubs/pubs.htm/(Accessed 14 June 2005).
- Majlis Perbandaran Pulau Pinang. (1998). *Laporan Penyemakan:* Rancangan Struktur (Pengubahan) Majlis Perbandaran Pulau Pinang 1990–2010. Pulau Pinang: Majlis Perbandaran Pulau Pinang.
- Menon, M. (1990). *Penang: Looking Back, Looking Ahead 20 Years of Progress.* Pulau Pinang: Penang Development Corporation.
- Mourato, S. and Mazzanti, M. (2002). Economic valuation of cultural heritage: Evidence and prospect. In Torre, M. Assessing the Values of Cultural Heritage Research

- Report.www.getty.edu/conservation/resources/assessing.pdf/(Accessed 14 June 2005).
- National Institute of Valuation, Valuation and Property Services Division. (1979–2005). *Property Market Report 1978*. Kuala Lumpur: Ministry of Finance Malaysia.
- Pagiola, S. (1996). Economic analysis of investments in cultural heritage: Insights from environmental economics. World Bank: Environment Department. siteresources.worldbank.org/ INTEE /214574-1153316226850/20486327/EconomicAnalysis of InvestmentsinCulturalHeritageInsightsfromEnvironmentalEconomics 1996.pdf/ (Accessed 30 July 2006).
- Pearce, D (1989). Conservation Today. New York: Routledge.
- Pickerill, T. (1997). Issues facing valuers in the appraisal of historic buildings. www.rics.org/Builtenvironment/Buildingtypes/Historicbuildingsandancientmonuments/issuesfacingvaluers1997010 1.htm/ (Accessed 6 January 2006).
- Pickard, R. and Pickerill, T. (2002). Real estate tax credits and other financial incentives for investing in historic property in the United States. *The RICS Foundation Research Paper Series*, 4(17). www.rics-foundation.org/ (Accessed 6 January, 2006).
- Rypkema, D. (1994). *The economic effect of national register listing*.crm.cr.nps.gov/archive/17-2/17-2-16.pdf/ (Accessed 14 June 2005).
- Scribner, D. (1976). Historic districts as an economic asset to the cities. *The Real Estate Appraiser*, May/June, 7–12.
- Shipley, R. (2000). Heritage designation and property values: Is there an effect? *The International Journal of Heritage Studies*, 6(1). www.fes.uwaterloo.ca/research/hrc/pdf/p_value.pdf/ (Accessed 16 May 2005).

- Shankland, G. (1975). Why trouble with historic towns? In *The Conservation of Cities*. Paris: UNESCO.
- Tan, E. (2006). Mapping of Balik Pulau town. *The Star Online*. 3 March 2006. thestar.com.my/news/story.asp?file=/2006/3/3/north/13169543&sec=north/ (Accessed 2 August 2006).
- Tan, T.S. (2002). Heritage conservation efforts in Georgetown, Penang, Malaysia. In Partnerships for World Heritage Cities Culture as a Vector for Sustainable Urban Development, World Heritage 2002, Shared Legacy, Common Responsibility Associated Workshops, 11–12 November 2002 at Urbino, Pesaro, Italy. whc.unesco.org/documents/publi_wh_papers _09 en.pdf/(Accessed 29 June 2005).
- Thorsby, D. (2002). Cultural capital and sustainability concepts in the economics of cultural heritage in Torre, Marta. *Assessing the values of cultural heritage research report.* getty. edu/conservation/resources/assessing.pdf (Accessed 14 June 2005).
- Warner, R.M., Groff, S.M., Warner, R.P. and Weiss, S. (1978). Business and preservation. In Stella, (Ed.). *Old Title New Profits from Old Buildings: Private Enterprise Approaches to Making Preservation Pay.* NY: INFORM Inc.

Wrigley, M. and Hughes, S. (1998). Assessing the development potential of historic buildings – A case study. *Journal of Property Valuation & Investment*, 16(3). www.ingenta connect.com/content/mcb/ 0112/ 1998/00000016/00000003/art00004;jsessionid=1ijvf1v4lux0c.henrietta/ (Accessed 18 April 2005).

Yuen, B. and Ng, T.H. (2001). Urban conservation in Singapore: Tradition or tourist bane. *Planning Practice & Research*, 16(1): 39–50.