The Relationship between Language and Architecture: A Case Study of Betawi Cultural Village at Setu Babakan, South Jakarta, Indonesia

Agustin Rebecca Lakawa
Language Centre, Trisakti University
Faculty of Civil Engineering and Planning, Trisakti University
Jl. Kyai Tapa No.1, Grogol, West Jakarta
11440 Indonesia

Abstract

Betawi language as the language of the people who occupied Jakarta and its surroundings is used to define ethnicity and provided cultural identity of Betawi people. This study reports on the relationship between language and architecture in terms of Betawi vernacular. To support the understanding and explanation about the topic, data gathered through observation and semi-structured interview at Betawi cultural village. The understanding about Betawi vernacular can best be replaced by the concepts of architecture in Betawi traditional houses. The study shows that the relationship between language and architecture can be seen in terms of its continuous dependability and relationship. The parts and sections of Betawi houses represent the openness towards outside and new influences, which accommodate creative and innovative forms added to Betawi houses. This openness can be traced in terms of language, which is represented in the form of having various borrowing words from other languages. The simplicity of Betawi house is the representation of the simplicity of Betawi language as can be seen in the form of grammatical features of the language. In sum, there is a clear relationship between Betawi language and architecture in terms of its simplicity, its openness, and its adaptability towards foreign influences.

Keywords: Betawi language, Betawi architecture, adaptability, vernacular

1. Introduction

Language is a form of verbal communication and architecture is a form of non-verbal communication. As a form of non-verbal communication, an architect should understand well how to communicate in this non-verbal language, so that the purpose and objectives of the building can be achieved (Lawson, 2001). Space as part of architecture is an important aspect that is very basic and represents general flow of communication (Lawson, 2001). Often, space as an integral part of a building fails to be communicated simply because of a lack of understanding by the designers of the needs of users of a building (Lawson, 2001). Lawson (2001) further highlights that with good communication through an understanding of the purpose and realizing the surroundings environment of the building, the intentions of constructing a building could be accepted by the environment in which the building is located.

Figure 1: The Study Site of Setu Babakan Betawi Cultural Village, Srengseng Sawah, South Jakarta

On the other hand, language as a form of verbal communication is spoken using specific systems, sounds, phonetics, syntax, semantics, grammar and so forth that are understood by all elements in a group of speakers (Gas & Selinker, 2001). The understanding is the same as in positioning a language and a structure of the product of architecture to give room to see the relationships that exist between the two fields.

Furthermore, to find the relationship between language and architecture, part of the models that has been modified in Non-Verbal Communication by Amos Rapoport (1982) in his book 'The Meaning of the Built Environment: A Nonverbal Communication Approach' will serve as a model in discussing the relationship between Betawi language and architecture. Betawi, which is a Jakarta dialect of Malay Language, was part of the Malay language used by Betawi community as the indigenous tribe of Jakarta area (Kennedy, 1993; Collins, 2000). Betawi is a creole language based on Pasar Malay language coupled with the elements of Sundanese, Balinese, Javanese, Chinese (mainly the Hokkien dialect), Arabic (Middle Eastern), Dutch, and Portuguese (Muhadjirin, 1999; Wijaya, 1976). In their development, these languages enriched Betawi language to the extent that it later became known as the language used by the inhabitants of the special region of Jakarta City and its surroundings. This language later evolved naturally, leading to formation of no clear standard structure that differentiates it from the Malay language, although there are some elements of linguistic identifiers that can be used as a guide (Hudson, 1987; Kaplan & Baldauf, 1997). Betawi architecture, however, represents the typical shapes of houses built by the indigenous Betawi spread throughout areas of Jakarta City and its surroundings. Betawi architecture possesses special characteristics, which generally belongs to Melayu Architecture (Wijaya, 1976). For that reason, Betawi houses have structures that are the basis of development of Malay houses in general.

1.1. Evolution Pattern of Betawi Language

Betawi language was originally derived from Market Malay language or better known as the Creole Malay language as is shown in Table 1 (Saidi, 1997, 2002; Muhadjir, 1999; Chaer, 2009).

Table 1: Evolution Pattern of Betawi Language

	A Chaer (2009)	Ridwan Saidi (1997; 2002)	Muhadjir (1999)
Origin	Area dialect from Malay language; ought to be called Betawi Dialect (City Port)	In 18th century after the VOC, Betawi language is a blend of Malay, Chinese, and Balinese.	Malay Dialect in Jakarta is not supported like other local languages, or not like the other Malays like the Riau Malay, Banjar Malay.
Social Variation	The Betawi people are the original tribe in Jakarta formed from various tribes	Modern day Betawi becomes the means of communication between ethnic groups	Modern Betawi is a variation of Malay, which evolved in Jakarta as a result of the emergence of various ethnicities that dwell in Jakarta
Geographic Variation	Jakarta Malay language was used from the borders of Cikarang-Tambun in the east; Tangerang in the west; Depok in the opposite south; and in several parts of Seribu island.	Jakarta dialect of Malay language is what is used in most parts of the Province of DKI Jakarta.	The Malay Betawi on the mainland speaks Sundanese.
Adopted language Variation	Arabiceg; anè (ana), énté (anta), jekat (zakat), gahwa (kopi), sahi (teh), padol (silakan), apdol (lebihbaik);	Portuguese language, Chinese, Arabic, etc.	Chinese eg; "hayya ngai mau ke Manggalai dulu, nanti putel-putel balu balik ke Pasal Balu."
Malay Language Mode	Jakarta dialect of Malay mode	Jakarta mode of Malay Language	Jakarta Dialect of Malay language
Various Dialect Modes	Sub dialect (accent) eg: - Mester (Jatinegara, Kampung Melayu, and the surrounding areas;-Tanah Abang	Karet (Karet, Senayan, Kuningan, Menteng, & seurroundings); Petamburan,and surrounding areas	- Kebayoran (Kebayoran Lama, Pasar Rebo, Bekasi and the other surroundings of Jakarta.
Suburban(*Pinggir)*Betawi	Rumah, bawah, susah, patah,		Suburban Province= 43%
Central Betawi	Rume-ruma; Bawe-bawa	Suse-susa; Pate-pata	Central Province = 50%
***BetawiOra;*Betawi borders**	Rumè; Bawè	Susè; Patè	
Betawi Speakers	Tangerang=168.000	Bogor=301.000	Bekasi=474.000

This Creole Malay was originally the lingua franca of the Portuguese in the 16th century, which later came to be known as the Market Malay (Saidi, 1997; Collins, 2000). The Market Malay later evolved into what is known today as Betawi language. On the other hand, the High Malay language now known as Indonesian Language (Saidi, 1997) was often used at formal gatherings in the past.

Information on the pattern of evolution of Betawi language as can be seen in Table 1 is a summary of the opinion of some Betawi language and culture experts, i.e. Ridwan Saidi (1997; 2002); Abdul Chaer (2009); Muhadjir (1999) as well as data obtained from the area of Setu Babakan. The data present a generally miniature overview of the evolution patterns of Betawi language, a reflection of inadequate information that could be obtained from the field. According to Abdul Chaer (2009), Betawi language was previously a dialect of Malay region. As such, it ought to be called the Betawi dialect because of its evolution at the port city with many tribes moving in and out for trading. Ridwan Saidi (1997, 2002) further adds that this ethnic Betawi began to grow in the 18th century when the VOC brought in blue collar workers in Batavia making the Betawi tribe an ethnic mixture of Malay, Chinese, Balinese, Portuguese, Buginese, and Butonese which came in Batavia since 1819 (Kennedy, 1993). Nevertheless, Muhadjir (1999) states that the same ethnic groups do not support the Jakarta dialect of Malay as what happened in Riau Malay, Banjar Malay, etc. Similarly for Setu Babakan, the Sundanese dialect heavily influenced the area given the geographic variation bordering West Java (Wijaya, 1976). The same thing was also expressed by other experts that a variety of Jakarta dialect of Malay was used in borders Jakarta—Cikarang—East Tambun; West Tangerang up to Depok to the south and partly in the Seribu Island in addition to most of the areas of Jakarta (Muhadjir, 1999; Chaer, 2009; Saidi, 2002).

The Betawi ethnic group is a community of the indigenous tribe of Jakarta formed from a variety of tribes that came from outside Jakarta, abandoned their native identity then together formed a new ethnic group (Wijaya, 1976; Surjomihardjo, 2000). Modern Betawi language is what later came to be the medium of communication between tribes. Modern Betawi is a variation of Malay that evolved in Jakarta as a result of the emergence of various ethnic groups living in Jakarta and abandoning their original ethnicity and later changed to function as a medium of communication among ethnicities (Dinas Komunikasi, Informasi & Kehumasan, 2013). This social variation was often supported by geographic variations where the Betawi people lived and thrived (Table1).

1.2. Development Pattern of Betawi Language

The development of Betawi language that is inclined towards being egalitarian (Saidi, 2002) is the influence of the existence of *Batavia* as a bustling city port visited by immigrants so that the language used tends to be 'vulgar'. Furthermore, in his book Babad Tanah Betawi, Ridwan Saidi (2002) highlights that Melayu Polinesia language began to be used in Betawi land at approximately 10th century BC. Previously, the Betawi people used Kawi language or Jawi language that dominated entire inhabitant regions of Java Island. This is evident from the Kawi/Jawi vocabulary in the old Betawi language vocabulary besides the influence of the Portuguese, Dutch, Chinese, and Arabic languages (Saidi, 2002). The development pattern of Betawi language can be obtained by comparing the opinions of some experts in Betawi language and culture i.e. Abdul Chaer (2009), Muhadjir (1999), and other Betawi language and cultural experts with existing conditions in the field, namely the area of Setu Babakan as shown in Table 2.

Table 2: Development Pattern of Betawi Language

	A Chaer (2009)	Setu Babakan (2013)	Muhadjir (1999)	Other experts
Alphabet	Phoneme originating from foreign languages : f=p; kh=h; q=k; v=p; x=s; z=j/s Phoneme/é/ /è/	The alphabet of Indonesian language that is currently in use.	Use Latin Alphabet similar to what is currently used in Indonesian Language: include phoneme /e//ng/ and /ny/ /n/.	Same with the Alphabet in Indonesian Language
Spelling	Indonesian and Malaysian Spelling System /e/- padet, seret, sebel, lepet /é/- bémo, sébé, sate, énté	The official Indonesian and Malaysian Spelling System used in Indonesian Language -Engkong-Nenek (bapatua)-Encing-Uwa (kakak Bapak)	/è/-mèrah, sèrèt, dèrèt, kontèt /o/-tokoh, lobang, bolong, gentong. /oo/- toko, oto, lotto. ,	Bapa-Mak (Ibu) - Abang (kakak laki-laki) - Mpok (kakak perempuan) ' – bapa', ba'so, blo'on k – kampak, takbir, tarik
Vocabulary	Laler-lalat Lepit-lipat Puntul-tumpul Demenan-pacar	Uber,udag-kejar Demen-suka Ngibrit-lari Besukaan-berpacaran	Betawi words according to origin: - Javanese (897=18.37% - Sundanese (22=8.64%)	- Javanese-Sundanese (1.076=22.05%) - Malay (1.719=35.21%) - Others (768=15.7%).
Phonological Attributes (Consonant)	Mester Sub dialect: /b/, /p/, /m/, /d/, /t/, /n/, /j/, /c/, /ny/, /g/, /k/.	H consonant is dropped Habis-abis Hilang-ilang.	/ng/, /'/, /h/, /w/, /y/, /l/, /r/, /s/.	H consonant at the beginning of the word is dropped eg:hutang-utang
Phonological Attributes (Vocal)	Mester Sub dialect: /i/, /e/, /è/,/é/, /a/, /o/, /oo/, dan /u/			Vocal a'----vocal a' (ngga, kaga, masa, belaga) Vocal a----vocal a (juga, kaya, bisa)
Morphology Attributes (Syllable)	Kullima-pukul lima Sengatuju-setengah tujuh Sabanari;Tobang ke-tuebangke Gakade-nggakade	Verbs –me Pre-nasal: pukul-mukul; bakar-mbakar;ganggu-ngganggu. Repeated words=tersengguk-sengguk=sesenggukan	Prefix ber-be: berbisik-bebisik; berjalan-bejalan; berkarat-bekarat Suffix an: cepetan, tinggian, baikan.	Prefix me-nasalized = mengambil—ngambil Menanam—nanem Membawa—ngebawa.
Morphology Attributes (Basic Words)	Apa-apa, ape, apah Berapa-berapa, berape, berapah	Habis-abis Hanyut-anyut Hamil-hamil	Sampah, sampah, sampa, sampe; Satai-sate; Kerbau-keboGulai-gule	Habib-habib Lebih-lebi Putih-puti
Syntax Attributes	- Compound words and Proverbs - Action words (active form and passive form with prefix di-	Action words with other affixes. -Siape nyang bise njinekin macan? -Emak mbukain pintu -Kite ngge boleh njelek-jelekin orang	Word articles like (sih, kek, dong, deh, kek): - Lu udè gak kenal langgar **sih**. -Tapinyè bilang dulu amè si Miun **dong ye**? -Belon pulang **kok** delman nyè ada di blakang.	Amat punya rumah= rumah Amat -Saya punya bini= istri saya. -Noun with the word this-that - Ini rumah (Ind)=rumah ini (Btw).

In summary, the development pattern of Betawi language to be discussed here is in regards to linguistic aspects such as phonological, morphological, and syntactical (Gass & Selinker, 2001; Kennedy, 1993). The alphabet and spelling used follow the Malay language, which in this case is Indonesian language. Alphabet used is Latin alphabet while the spelling used is EYD (*Ejaan yang Disempurnakan*), which is actually an enhanced spelling with some conformities from Betawi dialect.

According to some survey results on Betawi language (Surjomihardjo, 1999-2000), a larger part of it was derived from Malay (35%), then Javanese and Sundanese (22%) and other languages (15%). This is reflected in Table 2. In its development, all of these languages enriched the vocabulary and became the characteristic of the language that known as Betawi language. Diverse vocabulary from Arabic, Chinese, and Portuguese languages (Table 1) enriched the vocabulary of Betawi and at the same time demonstrated openness and readiness of the Betawi people to accept other societies. This at the same time also became a mark of how Betawi people are very open in accepting adopted words from other languages. These adopted words later became an integral part of the vocabulary of Betawi people.

Next, the phonological characteristics of Betawi as can be seen in Table 2 shows how the sounds of the consonants are not much different from the original Betawi language namely Malay/Indonesian language (Collins, 2000; Chaer, 2009). The only variation is the omission of the /h/ sound at the beginning of the words for example /*hilang*/ becomes /*ilang*/. For the sounds of the vowels though, there is a slight alteration, especially for the vowels /e/ /è/ /é/ /o/ /oo/. Apart from these two aspects, there is no significant difference between Betawi language and its two mother languages, Malay and Indonesian. Morphological characteristics of Betawi language can be seen from how its syllables, vocabulary, and basic words are formed and integrated with each other to form a pattern that is consistent with other linguistic characteristics of Malay and Indonesian languages (Muhadjir, 1999; Collins, 2000). There is a tendency to abbreviate basic words as well as syllables in Betawi language. The simplest examples of the formation of basic words and syllables in Betawi language can be seen in Table 2. An interesting morphological feature of Betawi language is the tendency to abbreviate syllables for example *'kullima' (pukul lima); 'sengatuju' (setengah tujuh); 'tobangke' (tua bangka);'gakade' (tidak ada)*. The basic words are shortened become like: *'kerbo' (kerbau); 'gule' (gulai); 'sampe' (sampai); 'Sampa' (sampah),* etc. It also applies for verbs: *'mukul' (pukul); 'mbakar' (bakar);* repeated words for example: '*sesenggukan' (tersengguk-sengguk)*. Furthermore, the syntax characteristics of the Betawi language can be compared to the examples of invented words, compound words, sentence particles, etc. Table 2 shows how the syntax characteristics of Betawi language are formed as based on the opinion of some experts. For example, the invented word: *'Siape nyang bise njinekin macan?'*'*Emak mbukain pintu'*,'*Kite ngge boleh njelek-jelekin orang'*. Then, the particles in Betawi sentences like *(sih, kek, dong, deh, kek): 'Lu udè gak kenal langgar sih'; 'Tapi nyè bilang dulu amè si Miun dong ye?'; 'Belon pulang kok delmannyè ada di blakang'*. Syntactic characteristics like these are dominant in the daily usage of Betawi between speakers and sometimes between Betawi native speakers and the nonnative speakers. This suggests that the Betawi language is able to meet the needs of its native speakers in communicating orally and in writing.

1.3. Local Vernacular of Betawi Architecture

Betawi houses were originally built in a watershed or river basin areas because in the ancient days, 13 rivers watered Betawi region such that houses were constructed on stilts to avoid the danger of flooding (Saidi, 2002). Because the houses were originally on riverbanks, the stilts were built facing the river but this was not a prerequisite. However, there is a belief that Betawi houses should be constructed facing east instead of north, west or south that is: inclined towards the rising sun (Saidi, 2002). The logical explanation for this is that it is proper to sun bath with the morning sun which still has a lot good sun rays but at the time when the sun emits harmful rays, its position is at the top of, or even back of the house. Betawi houses located in a region which geographical location requires the construction of a house elevated above the ground and had stairs like the houses of Malay architecture (Kennedy, 1993; Wijaya, 1976). Houses like these require construction of stairs known as *sujibala,* which are construction stairs of Betawi raised platform houses and is a sacred corner in Betawi architecture (Saidi, 2002). Having been derived from Malay architecture, Betawi architecture has parts similar to most of the houses of Malay architecture in accordance with the areas of community distribution. Therefore, the architecture of Betawi has zonings like that of Malays, that is; public areas where there is a living room - space without walls called *amben* that can be given a veranda. Then the private area, the middle space is where there are rooms for members of the household called *pangkeng*. The *amben* and *pangkeng* sections are restricted by a partition called *garde* made up of two windows and one door, then a dining area or kitchen area called *srondoyan* and its location is usually lower than other parts of the house (Saidi, 2002). Ornaments on the frames, windows, doors, and vents of Betawi houses are an influence of Chinese, Dutch, Portuguese, and Arabic cultures, i.e. nations with a more direct connection with the Betawi people (Chaer, 2009).

Depending on the shape and structure of the roof, Betawi traditional houses can be divided into three categories, namely *gudang* piece, the steeper upper section piece (pyramid) and *bapang* piece or the *kebaya* (DKI Jakarta Provincial Government, 2011: Dinas Komunikasi, Informasi & Kehumasan, 2013). Each of these pieces or shapes is closely related to the distribution of its plan. However, according to Ridwan Saidi (2002) the roof of Betawi houses consists of *jure, joglo, and oksipir.* The *oksipir* roof model is usually for mosques that can still be found on the Betawi houses in Tangerang. In addition, there are *sedekahan naek kuda-kuda* (for newly built houses) and *sedekahan rata bumi* (for houses rebuilt after demolition of the old one) ceremonies, which are done by Betawi people. These are a symbol of unity when the Betawi people are building a house (Saidi, 2002).

1.4. The Relationship between Betawi Language and Betawi Architecture

Malay architecture is the origin of Betawi architecture. Malay architecture was originally very simple and with minimal usage. It was built to simply accommodate families' needs. Therefore, the main objective of construction of a house was to protect the occupants from rain and sun and also to enable easy movement in case there is a need for relocating. The simplicity of the Malay houses later adopted by the Betawi people to Betawi houses represents the simplicity of Betawi language as can be seen from the nature of the grammar of Malay language (Muhadjir, 1999; Chaer, 2009). Nevertheless, Betawi language, which according to Ridwan Saidi (2002) is very egalitarian in nature resemble its speakers, provides a basic overview that Betawi Architecture evolved with the development of Betawi language to take up the form that is known today. This can be clearly seen in the theoretical framework below which describes how Betawi language and architecture are interconnected (Figure 2). The pattern of relationships like this has ever been used by researcher when conducting studies and later on in presenting the paper on the pattern of relationship between Malay language and architecture (Lakawa, 2011). This diagram can also be used as a theoretical framework for this study. In this theoretical framework (Figure 2), the researcher applies the adapted model of Non-verbal Communication from Rapoport (1982), which divides the form of communication in terms of physical and social elements. The physical elements can be seen through architecture and the social elements can be experienced through language. From these standpoints, the dependability or continuity between the two topics develops the relationship in terms of whether it is clearly designed, expressed, or structured in the form of architecture based on its language features. Based on the explanation above, the following question is used to find the answer on the relationship between Betawi Language and Architecture: "To what extent is Betawi Language designed, expressed, and structured in Betawi architecture at Betawi Cultural Village, Setu Babakan, Srengseng Sawah, South Jakarta?"

2. Methodology

2.1. Betawi Cultural Village (Setu Babakan)

The scope of this research concentrated on Betawi Cultural Village of Setu Babakan located at Srengseng Sawah, Jagakarsa-South Jakarta (Figure 3). This area, Betawi Cultural Village being the tourist object and a tourist destination was made a cultural heritage by DKI Jakarta Provincial Government (Indrasti (2002; Dinas Komunikasi, Informatika dan Kehumasan (1995-2013). The management of Betawi Cultural Village located on Jl. Moch Kahfi II Setu Babakan, Srengseng Sawah, Jagakarsa-South Jakarta Municipality that does the daily coordination of business activities. On the 10th of March 2005 by PERDA (Regional Regulation) no. 3, this land was extended from 165 ha to 289 ha, divided into four RW regions, namely RW 6 (11 RT), RW 7 (11 RT), RW 8 (13 RT), and RW 9 (14 RT) in the Jagakarsa Village, Sub-District of Srengseng Sawah, South Jakarta Municipal Government (Indrasti, 2002; Dinas Komunikasi, Informasi & Kehumasan, 2013). The total number of household settled in this region is approximately 5000 with a total population of around 22-23000 people and the majority of its people (about 60%) being of Betawi ethinicity (Dinas Komunikasi, Informasi & Kehumasan, 2013). Residents in RW 9 were selected to be the subjects of this study and of the many RT, three were randomly selected, RT 12, RT 9, RT 10 with the reason that these residential areas were the closest to Setu Babakan and are also considered to be representative of the diversity of community groups living in the Setu Babakan area. The age range of the head of these families was from 45 year to 80 years with the number of family members living together ranging from three to eight people who began to settle in the Setu Babakan region from the time of their parents and grandparents. In general, their livelihoods among others are trading, fruit gardening, selling things, running rental businesses, and retired private employees. Being the second generation, the family heads generally attained up to elementary education but nearly all of the next generation (of their children) enrolled in high school and some even up to university level.

Like most Betawi people, all the respondents were Muslims and have distributed their own lands or businesses as inheritance to their children who are married. The language used at home or outside the home by a family member or outsiders is Betawi language that they have known and been used since the days of grandparents and their parents. The population in general is aware that the land they dwell on (locality) has been transitioned to become the Betawi Cultural Village, a decision made from DKI Jakarta Provincial Government. From the time of this announcement, they have tried to support all government programs relating to the management of the Betawi Cultural Village based on each family needs. They realize that it is not possible to abide all the regulations set by the management but they adjust the regulations accordingly. By trying to participate in the implementation of every program launched by the government in relation to the Betawi Cultural Village, they thus show that they have supported this project. The local people also expressed their feelings of having a sense of ownership for this Cultural Village because they feel included in every decision taken by the government, represented by the management. The people are kept up to date with important information relating to the management of the cultural village.
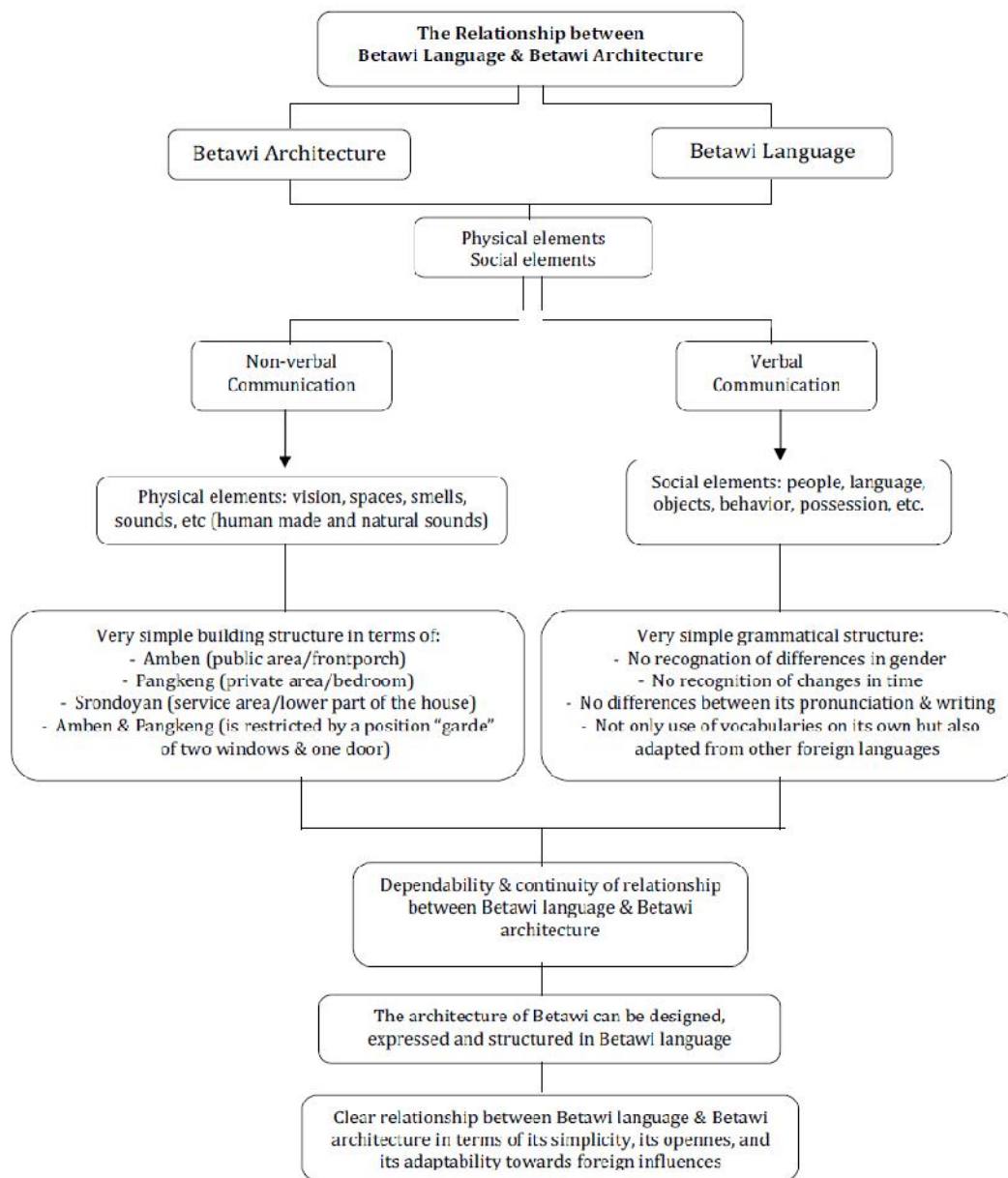

Figure 2: Theoretical Framework of the Relationship between Betawi Language and Betawi Architecture

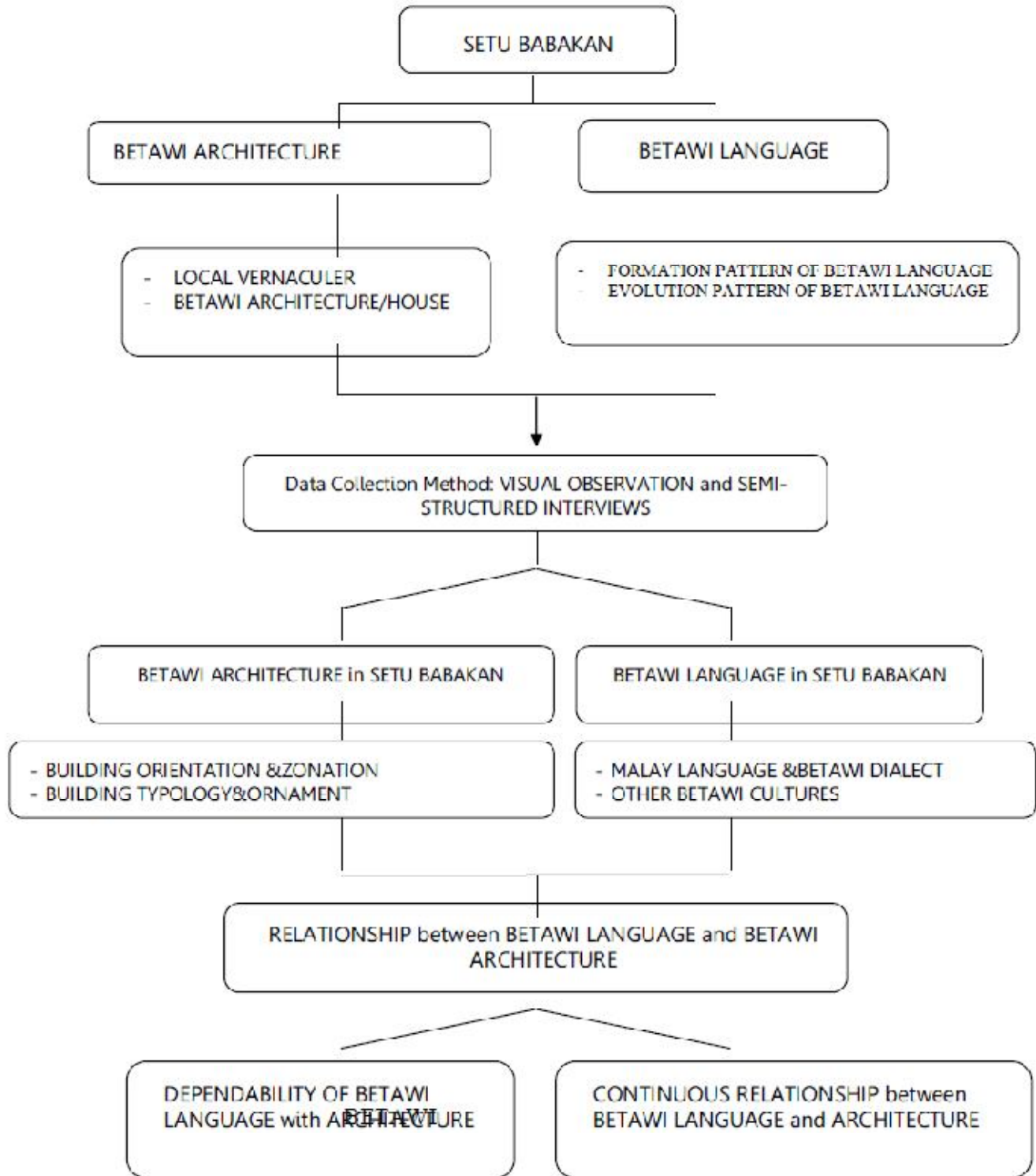**Figure 3: Map of Betawi Cultural Village at SetuBabakan, SrengsengSawah, South Jakarta**

Figure 4: Research Design of the Relationship between Betawi Language and Betawi Architecture

2.2. Data Collection Method

To collect information and data on the topic being investigated, some methods were used. This is a qualitative research in nature covering field observation and semi-structured interviews. These methods were used to answer the research questions by collecting a variety of comprehensive information about the object of study.

The research variables that were looked at included structures of Betawi architecture and their equivalent in Betawi Language. The data collection methods used in the field consisted of recording visual data and conducted semi-structured interviews to the residents of Setu Babakan area (Figure 3) about Betawi Language. On the other hand secondary data on Architecture of Betawi houses and linguistic features, vocabulary, and structure of Betawi language were collected through various findings of past research as well as books on architecture of Betawi houses and Betawi Language. Field data in the form of visual observation was perceived to address the forms of architecture of Betawi houses, which in this case includes the organization of functions within Betawi houses (zonation), ornaments of Betawi houses, building typologies and building orientation. The field observation method used was the visual observation, which is considered part of the qualitative research and as one of the social data collection techniques (Rapoport, 1982; Denzin and Lincoln, 2009). This visual observation method has its drawbacks, especially around the issues of validity and reliability, researcher's bias, and the influence of the researcher. For that reason, the researcher also sought the aid of a camera to serve as a 'memory mirror' (Denzin & Lincoln, 2009) to record the condition of the houses and the zones therein (Denzin & Lincoln, 2009). This was employed in this study in addition to have a thorough observation of the shapes of the houses (Figure 4).

3. Results and Discussion

To answer the research questions that formed the basis of data collection in the field, the researcher referred to the research question as expressed in the following: To what extent is Betawi language illustrated, expressed, and structured in Betawi architecture at Setu Babakan Betawi Cultural Village, Srengseng Sawah - South Jakarta? Observations about the shapes of Betawi houses with architectural styles taken at the study site were considered from a variety of literature including the use of an approach that was introduced by Rapoport (1969; 1982) on the Non- verbal Communication Approach. This approach is listed in Table 4 Part 3.5 consists of Physical Elements and Social Elements. Physical elements will be used to explain how to connect the parts of the house and its environment and the householder. Physical elements include topography of the land whether in accordance with nature or man-made. This ought to be an issue of concern, especially in determining the building materials such as what should be used, how to adjust the lighting, the nature of the surrounding green environment, the layout, whether the sounds around disturb or not, the length of the scenery, the odor of the surroundings etc. Physical elements include determining the choice of home decor, house colors and materials, house property lifting equipment, height, texture and detail of the house, and the final touches on the construction of the house. The discussion in this section is divided into several sub-headings that support the different parts of architecture in relation to Betawi traditional houses and how these sub-headings are connected to language.

3.1. Building Orientation and Zonation

Betawi houses are basically built with orientation overlooking the rice fields or gardens (Syafwandi et al, 1996 in Wahyudi and Prakosa, 2008; Saidi, 2002). This opinion is supported by a section of houses built in Setu Babakan overlooking the front yard and is overgrown with trees. Some houses no longer have planted trees but have patches of vegetation, which depends on the size of the compound available (Indrasti, 2002). As time goes, areas that were formerly allocated to rice fields have been changed and transformed to places of business in the form of rentals small stalls, selling daily needs of residents, or food stalls.
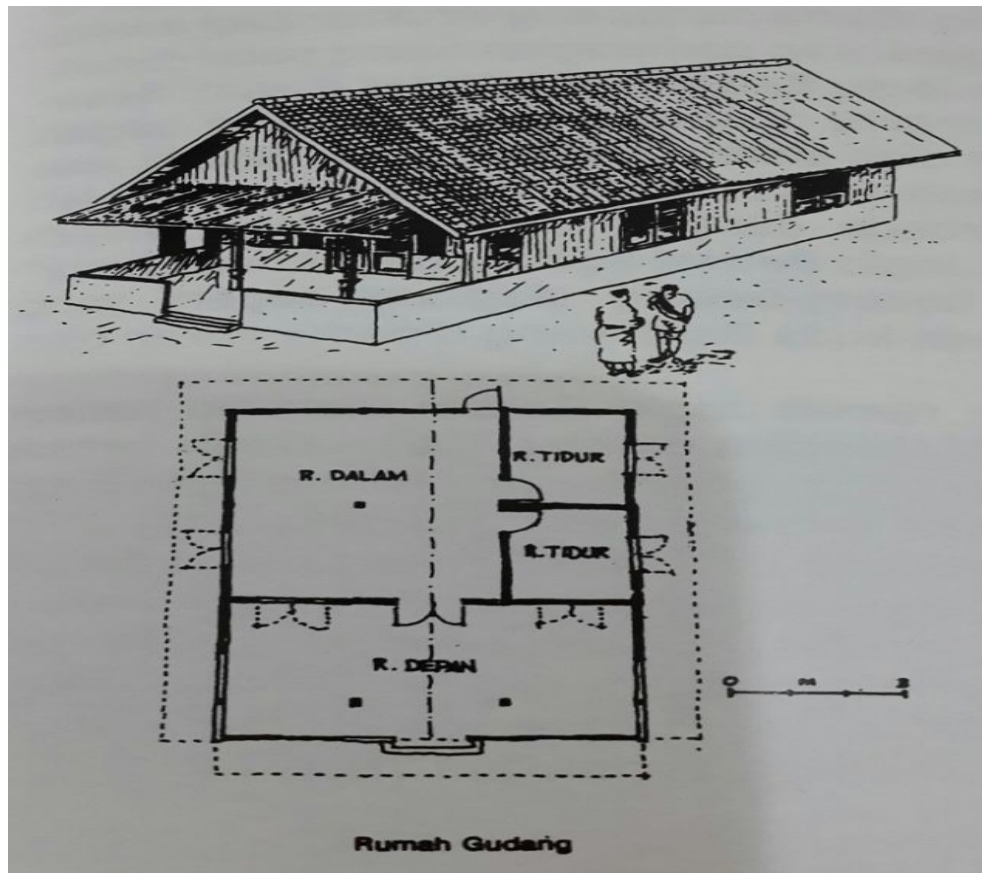
Figure 4: Rumah Gudang or one of the three types of Betawi Traditional Houses (Harun, 1991)

Zonation system on Betawi houses according to Syafwandi, et al, (1996) in Wahyudi and Prakosa (2008) and according to Ridwan Saidi (1997; 2002) includes the main zones (the rooms for the nuclear family), supporting zones (the rooms for relatives or families living together), complementary zones (areas for fish ponds and livestock), and gardening zone (area for growing fruit and vegetable). These can be clearly seen in Figure 4 above, and Figure 5 and 6 below. Most of the Betawi people who live and have settled in Setu Babakan maintain the main zone and the support zone only. These zones are then divided into three main parts for every inhabited house, that is: the *amben, pangkeng*, and *srondoyan* spaces (Saidi, 1997; 2002). Betawi people really appreciate the openness, which is expressed in the form of space for receiving guests. Guests in question are those who have family connections both close and distant. The guests received at *amben* space, which is usually completely open and is located at the front of the residence of the Betawi people. The *pangkeng* area however is only for immediate family living in the house of that particular Betawi family. *Srondoyan* region is the areas at the most rear of a Betawi house that is, the kitchen area. Data taken from field observations revealed that the majority of people living in the Betawi Cultural Village use a one roofing system that is based on socio - economic conditions of its inhabitants. Most of the roofing pattern used is pyramid roof or gable roof model. Most Betawi houses in this region use one type of roofing pattern for the entire zone in the house, although there are also those that have different patterns for a number of zones. This demonstrates the lack of uniformity in the form of zonation patterns and roofing pattern used by default, all based on variations of conditions developing in the community and largely influenced by the collision with other cultures, foreign to the Betawi culture.
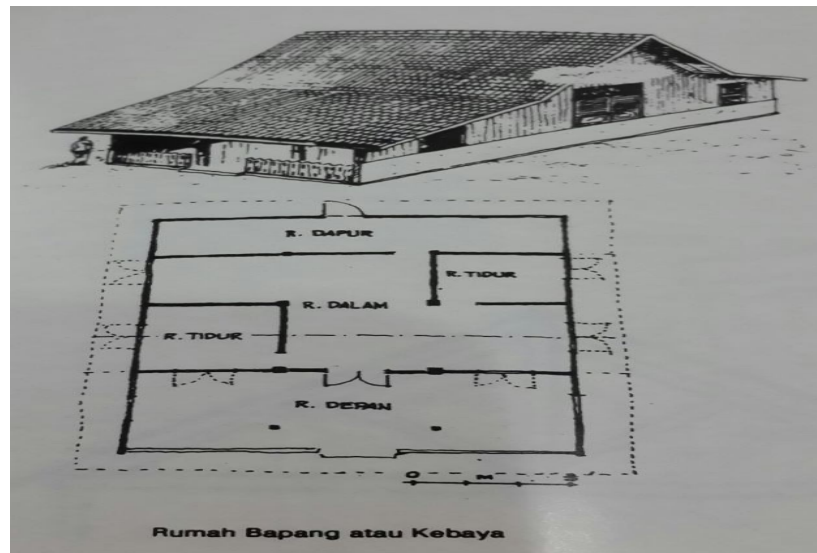
Figure 5: Rumah Bapang or Kebaya or one type of Betawi Traditional House (Harun, 1991)

3.2. Building Typology

According to the type of roofing and the width of the house, the architecture of Betawi house is made up of three types namely, the *Joglo* house, and *Bapang* house as can be seen in Figure 5 and 6 and *Gudang* house as can be seen in Figure 4 (Saidi, 2002: Syafwandi et al, 1996 in Wahyudi and Prakosa, 2008). The results of field observations provided that the shape of the houses built by the Betawi community in Setu Babakan is the pyramid house. The choice of the roofing pattern is apparently not something important in the tradition of house building by the Betawi people but rather construction of the foundation which is usually preceded by a ceremonial meal called "*sedekah rata bumi*", even though this event is carried out after the roof have been established (Saidi, 1997). Furthermore, according to Ridwan Saidi (1997; 2002) there is an important part when building a Betawi house, that is, the construction of *balasuji* stairs and a well in front of the house, usually on the raised platforms of Betawi houses, which by this time is rarely built. The well indicates that, if one wants to go up to the house, one must wash his/her feet in the well to keep them clean while in the house.
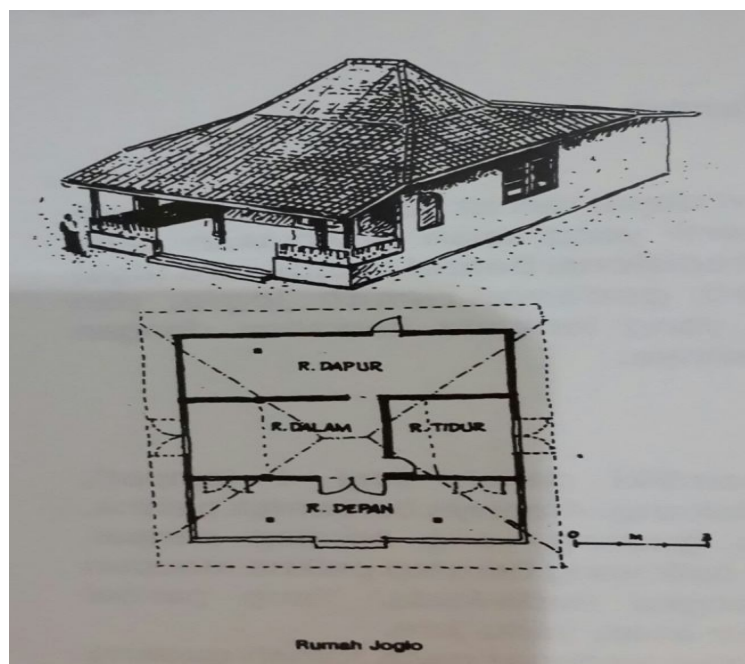

Figure 6: Rumah Joglo or one type of Betawi Traditional House (Harun, 1991)

3.3. Building Ornaments

The field observations revealed that majority of the houses in Setu Babakan are not stilt houses. This is confirmed by the narrative of the inhabitants as respondents who said that the main rationale of their building houses do not on stilts whose main material is wood based on practical and economic reasons. Nonetheless, there are some houses constructed relatively high from the ground with some stairs. The reasons for constructing with stairs of this nature are still unknown.

Figure 7: Building ornaments of Betawi Traditional House (Harun, 1991)

Most of the houses built at Setu Babakan, Betawi Cultural Village apply only Betawi architectural ornaments known so far (Figure 7). There are almost no original houses that are typical of Betawi architecture at Setu Babakan, so the Provincial Government of Jakarta (Dinas Komunikasi, Informasi & Kehumasan, 2013) proposed to the people of Jakarta to add ornaments that are Betawi on their homes and provided support in this regard to several households (Figure 7). Ornaments that were widely used at the time when residents renovated their houses are *lisplank* and *balustrade* (railing stairs or porch barriers). Other building ornaments included windows, doors, vents, roof ornaments, and fencing. The community did this voluntarily even when they did not receive government assistance but had sufficient financial ability.

3.4. Betawi Language at Setu Babakan

Based on the results of semi-structured interviews with all the respondents, the Betawi language spoken at Setu Babakan is the Suburban *(pinggir)* Betawi dialect. As it is known, there are two major sub dialects of Betawi language namely: Central Betawi and Suburban or upcountry Betawi. During its evolution, Sundanese influenced the Suburban Betawi dialect given that the area is directly adjacent to West Java. The interviews with the respondents at Setu Babakan area confirmed that Betawi language used in the area originated from the Malay language, which in this case is better known as the Indonesian language dialect of Betawi (Table 3). This language later evolved in accordance with the location where its speakers lived and developed.

Table 3: The Pattern of Betawi Language at Setu Babakan

	Betawi Language at Setu Babakan
Origin	Indonesian dialect of Betawi language that developed in this Cultural Village is the Suburban Betawi, which was strongly influenced by Sundanese considering the area borders of West Java.
Social Variation	The Jakarta dialect of Malay Language, which became Betawi language is the dialect used by the community at Setu Babakan. Sundanese has influenced it since many of the inhabitants closely associate with the Sundanese people.
Geographic Variation	The Betawi Dialect of Malay Language that is used in this area has experienced a major influence of Sundanese language since geographically it borders West Java.
Adopted language Variatio	Although geographically located at the borders with West Java, the words adopted from Sundanese are not too significant.
Dialect Mode	The Malay mode of Jakarta dialect with Suburban Betawi dialect is generally different in pronunciation of 'a' and 'e'

This resulted in the Betawi language speaking community at Setu Bababakan area to strongly be influenced by the developments in its vicinity. The situation in question here could be in the form of social variation, geographic, and adopted language. All three variations of the environment evolved along with the speaking community and their environment to start Setu Babakan of Betawi dialect (Wijaya, 1976; Collins, 2000; Hudson, 1987).

3.5. The Dependability between Betawi Architecture and Betawi Language

The discussion of the relationship between Betawi language and Betawi Architecture at Setu Babakan is based on the theoretical framework described in Chapter 2.4 above. Furthermore, the researcher used an approach that was introduced by Rapoport(1969; 1982) that is the Non-verbal Communication Approach in explaining how to connect the sections of a house and its surroundings with the user of the house. This approach seeks to reveal how a house is built based on social-cultural factors prevailing in the society. The building of houses is also one of the results of the form of nonverbal communication of a given society. Houses in this study are Betawi traditional buildings. These houses represent the Betawi people and were built to meet a variety of objectives and to refer to the practices prevailing among the Betawi people. The structure of traditional Betawi house has a mark that distinguishes it from other traditional houses. This is underscored by Rapoport (1969:46), which is revealed in the following statement: "a house is an institution, not just a structure, created for a complex set of purposes." Because building a house is a cultural phenomenon, its form and organization are greatly influenced by the cultural milieu to which it belongs. Thus at the time when the Betawi people build their houses, the societal and livelihood values are embedded in the division of its rooms, its layout, windows and doors, as well as other structures which are the description of the existence of Betawi people.

Moreover Rapoport (1969) revealed that the social order in a given society will determine how important the construction of a house is and what should be owned in a home as a mark of a particular society. Rapoport then provides the Non-verbal Communication model that can be studied through the List of Possible Potential Cues (1982:106-107) as in Table 4 below:

Table 4: Rapoport's List of Potential Cues (Adapted)

Physical Elements:	Vision: light and shade, light levels, light quality. Greenery, presence of plants, controlled versus natural, type of planting, arrangement.	Shape, size, height, color, materials, textures, decorations, details, furniture, furnishings, etc. Topography—natural or human made. Age---new versus old.
	Spaces: quality, size, shape, enclosing elements, pavings, etc.	
	Smells: human made versus natural, such as industry.	Pleasant versus unpleasant, plants, flowers, the sea, etc.
	Sound: sound quality—dead versus reverberant, noisy versus quiet,	Human-made sounds (industry, traffic, music, talk, laughter, etc.) versus natural sound (wind, trees, birds, water, etc.).
Social Elements:	People: languages spoken, behavior, their dress	Physical type, occupation, age, and sex, etc.
	Objects: signs, advertisements, foods, décor, fenses, plants and gardens, possession, etc.	

Based on the information from Table 4, Rapoport shared a List of Potential Cues that house owners need to communicate to the environment when building a house. The benchmark is categorized into two elements that are, Physical Elements and Social Elements. The researcher used both of these elements when explaining the relationship between Betawi architecture and Betawi language. Physical elements were used to describe the architecture of the Betawi while the Social Elements used to explain Betawi language and how the two relate to each other. Rapoport asserts that owners should pay attention to whatever is referred to as physical elements that influence the construction of the house and how the house adapts to the surroundings environment. Physical elements include topography of the land whether it is in accordance with nature or is man-made. This should be a concern, especially for determining building materials such as what to use, how to adjust the lighting, the greenery, the layout, whether the sounds around are disturbing or not, the extent of the scenery, the surrounding odors, etc. Physical elements include determining the choice of home decor, house colors and materials, size and the household lifting equipment, height, texture and detail of the house, and the final touches on the construction of the house

All matters relating to the above physical elements can be seen on the Betawi house located at the study sites. The Betawi built houses based on the prevailing traditions in their environment and indirectly paying attention on the sections of the physical elements as intended by Rapoport (1982). They, for example build houses without using wood anymore because of its scarcity and high cost of these materials. They are also very concerned about the nature of the topography of the surrounding environment by not changing it but directly build their homes based on the topography of the hereditary family. Meanwhile, they still maintain the vegetation whose location is in accordance with their customs that is planted in the front-yard of the house. The types of plants available are based on peculiarity of Setu Bababakan, which was once famous for its fruit plantation. Hence, most of the existing plants are trees, tree fruits such as mango tree, rambutan tree, the sapodilla tree, banana trees, papaya trees, orange trees, etc. Generally, it can be seen that the shape of the built houses are the representation of the results of the public thought in communicating their needs. The need for space is influenced by the quality, size, shape, cover elements, courtyard area, etc. constructed to achieve simplicity and meet the need for a comfortable home (Rapoport, 1982). Similarly, for the smells, sounds, and other things around the house, effort is made for these not to interfere with the comfort of occupants living in the houses (Rapoport, 1982). In general, it can be concluded that the Physical Elements (Rapoport, 1982) of Betawi houses are more open to have influences from outside. This can be seen and learned from the pattern of the steps, arrangement pattern of the inside guest room, structural systems and detail as well as details of its ornaments (Department of Culture, 1992).

This form of architecture is influenced by public openness of the originators and owners of the Betawi architectural elements towards the influence of other cultures (Saidi, 1997). The social elements on the other hand can be found in the community in respect to the language used, behavior of the people, way of dressing, physical makeup, age, gender, type of work, etc (Rapoport, 1982; Loveday, 1986). In general, social elements can also be found at the study site in the region of Setu Babakan. These social elements are directly embedded in the way of life of the people in the study area, the language used in this case being Betawi (Loveday, 1986). The Betawi people who live at this study site are by nature very religious and highly uphold religious values. This is clearly reflected in their everyday behavior and how they dress. In general, people who live in this location have opted to work as farmers in harmony with the geography of this region.

4. Conclusion

The spread of Betawi dialect of Malay and its development in various areas of Jakarta and its surroundings has been much influenced by the Betawi people themselves and various communities that live and thrive in Jakarta (Shiffman in Fishman, 1999). Betawi language possesses special attributes like Malay language as the mother language of Indonesian (Collins, 1992; Kennedy, 1993). Therefore, the Betawi language has peculiarities like Malay language and became the basis for the development of Betawi in Jakarta and the surroundings areas. This covers all aspects of society including the Betawi language as a medium of verbal communication and architecture of Betawi houses as a medium of non-verbal communication (Lawson, 2001). The continued relationship between Betawi language and Betawi Architecture can be expressed through the consistent use of Betawi language on parts of Betawi houses. This can be clearly seen by the use of a model that was introduced by Rapoport(1982: 120) on how to identify the relationship between the house and the culture of its owner in the Modified Non-verbal Communication Model. This model as elaborated in Table 4 and already used in the explanation parts of the previous sub-chapter contains a list of the various Physical Elements and Social Elements which are interconnected and can be used to explain the continuity of the relationship between Betawi language and architecture.

The continuity of relationship between the two central themes of this study indicates that there is a mutual bond of need for both. The results of this study show that the relationship between language and architecture is manifested in the way Betawi language is used in explaining the functions of the parts of Betawi house. Even so, not all parts of Betawi houses use the terms from Betawi language but they have been influenced by the terms from Indonesian and Sundanese languages. This is consistent with the geographical location of this study site being at borders with the areas of West Java and some of its inhabitants using Sundanese language. Continuity of the relationship between Betawi language and Betawi architecture can also be seen from how the attitude of the people towards the language and architecture. Therefore, examining the attitude of Betawi people towards Betawi language and the attitude of Betawi people towards Betawi architecture would be carried out as the continuation of this study. It is expected that the results obtained from this study can be used to complement subsequent research on Betawi language and architecture.

References

Baker, Collin. (1992). Attitude and Language. Clevedon: Multilingual Matters.

Chaer, Abdul. (2009). Kamus Ungkapan dan Peribahasa Betawi. Jakarta: Penerbit Masup.

Collins, James T. (2000). Malay, world language: A short story. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Dinas Komunikasi, Informatika dan Kehumasan (1995-2013). Jakarta: Pemerintah Provinsi DKI Jakarta.

Dinas Kebudayaan. (1992). Arsitektur Rumah Tradisional Betawi. Jakarta: Pemerintah Daerah Khusus Ibukota Jakarta.

Denzin, Norman K & Lincoln, Yvonna S. (2009). Handbook of Qualitative Research. Edisi Bahasa Indonesia. Yogyakarta: Penerbit Pustaka Pelajar.

Gass, M. Susan & Selinker, Larry. (2001). Second Language Acquisition. London: Lawrence Erlbaum Associates, Publishers

Harun, Ismet Begalwan. 1991. Rumah Tradisional Betawi. Jakarta Raya: Dinas Kebudayaan DKI Jakarta.

Hudson, R.A. (1987). Sociolinguistics. Cambridge: Cambridge University Press.

Indrasti, Rita. (2002). Upaya Pengelolaan Setu Babakan sebagai Kawasan Wisata Agro Berkelanjutan di DKI Jakarta. Magister Tesis Program Pascasarjana Institut Pertanian Bogor.

Kaplan, Robert B and Baldauf, Richard B Jr. (1997). Language Planning from Practice to Theory. Clevedon: Multilingual Matters.

Kennedy, J. (1993). A History of Malaya, Third edition. Malaysia: S. Abdul Majeed & Co.

Lakawa, Agustin Rebecca. (2011). Malay Vernacular in Indonesia and Malaysia: the Relationship between Language and Architecture. Paper Presented at the Second International Journal of Arsts and Sciences, Conference for Academic Diciplines. Harvard University, MA, USA.

Loveday, Leo. (1986). The Sociolinguistics of Learning and Using a Non-native Language. Oxford: Pergamon Press.

Lawson, Bryan. (2001). The Language of Space. Oxford: Architectural Press.

Muhadjir. (1999). Bahasa Betawi: Sejarah dan Perkembangannya. Jakarta: Yayasan Obor.

Rapoport, Amos. (1982). The Meaning of the Built Environment: A Nonverbal Communication Approach. Beverly Hills: Sage Publication.

--------------------(1969). House Form and Culture. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Saidi, Ridwan. (1997). Profil Orang Betawi:Asal Muasal, Kebudayaan, dan Adat istiadatnya. Jakarta Selatan: PT. Gunara Kata.

------------------. (2002). Babad Tanah Betawi. Jakarta: PT Gria Media Prima.

Schiffman, Harold F. (1999). South and Southeast Asia. In Handbook of Language and Ethnic Identity, Joshua A Fishman (ed.), 431-443. New York, U.S.A.: Oxford University Press.

Surjomihardjo, Abdurrachman. (1999-2000). Sejarah Perkembangan Kota Jakarta. Jakarta: Dinas Museum & Pemugaran Propinsi DKI Jakarta.

Wahyudi, Agung dan Prakosa, Wahyu. (2008). Partisipasi Masyarakat dalam Menciptakan Perkampungan ber-Arsitektur Betawi di Setu Babakan. Makalah dipresentasikan pada Seminar Nasional tentang Keberlanjutan Partisipasi Masyarakat dalam Pembangunan. Yogyakarta 25-26 Juli.

Wijaya, Hussein. (1976). Seni-Budaya Betawi, Pralokakarya Penggalian dan Pengembangannya. Jakarta: PT Dunia Pustaka Jaya.