CONSTRUCTION RIPPLE PHENOMENON AND THE RISE OF ‘GENERIC BUILDINGS’ IN YOGYAKARTA

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Abstract: Starting from the past decade, Indonesia is growing rapidly in the construction of infrastructures that are being fully supported by the government in order to reach the goal of becoming one of the leading countries in the future. Such development created the construction ripple phenomenon that was instigated by the private sector to fill the construction voids left by the rapid development of infrastructure, and it pressurizes cities to grow or change in order to coup with the infrastructure advancements. This phenomenon has affected the cities in Indonesia, even those that are not considered as the planned centers of developments, such as Yogyakarta. Yogyakarta is experiencing the effects of the ripple in the form of the rising number of generic buildings that are spreading fast around the city. This will, in turn, dictate the future of Yogyakarta’s ever-evolving Genius Loci. This research will see how much the construction ripple phenomenon has affected the city of Yogyakarta by conducting surveys on the generic buildings that have been built or in the planning stage of construction. A thorough analysis will be then made, also by conducting literature studies, to conclude the ways and steps to try maintaining Yogyakarta’s unique characteristic as a city in the ever-growing pressure of economic modernization that is currently spreading throughout Indonesia. If these steps are being done correctly, then Yogyakarta can become one of the examples of how cities in Indonesia coup with the construction ripple phenomenon without can losing its unique urban characteristics.

Keywords: construction ripple phenomenon, Yogyakarta, Generic buildings, Genius Loci

INTRODUCTION

Indonesia is in the process to become one of the leading economic countries in the world in next decade, and the current government has chosen the construction of infrastructures as one of their main objectives to reach that goal. The construction involves major infrastructure such as toll roads, airports, seaports, and other projects (BMI Research, 2017). The main goal of the constructions is to have a better connection between the cities and the islands in Indonesia. There are several corridors on each island, each with its own center of constructions. For example, the corridor in the Island of Java is centered at Surabaya and Jakarta. By doing so, the government wishes to have more equal developments amongst its provinces, giving also equal pricing of important commodities in between


Kata kunci: construction ripple phenomenon, Yogyakarta, bangunan generik, Genius Loci
the cities, such as the price of food, fuel, and even concrete, especially in the eastern provinces that are traditionally considered expensive to live in. Yet this movement is not without any side effects.

Researches have been made regarding the effects on construction to the city and its face, such as how the physical environment can contribute to the sense of a place (Stedman, 2003). There are also researches that have been done regarding the rise of the private sector participation in Asia’s construction sector (Raftery, 1998), the driving factors of the private sector’s infrastructure development in cities in Indonesia, such as Depok (Setiadi, 2018), and the contribution of construction to Indonesia’s surging economy (Agung, 2015). This paper wishes to find the effects and the results of the private sector’s economic pressure (the construction ripple phenomenon) to the urban fabric of Yogyakarta, and how the city should cope from those effects, and if possible, use it as a potential rather than as a threat.

One of the more recognizable effects of the private sector’s economic pressure is the surging number of generic buildings that began to grow in cities that are at the center of the economic growth and this effect spreads to the smaller cities around it, such as Yogyakarta. In general, this paper will focus on how these generic buildings are affecting the evolution and the modernization of Yogyakarta’s Genius Loci, dictating its urban face. Yogyakarta is being chosen due to its status as a future development center and also due to its strong and unique and strong locus. The research will then conclude the steps that should be done in order to ensure that Yogyakarta can become a modern economic center but without losing the unique architectural traits that separate it from the other cities in Indonesia.

### The Construction Ripple Phenomenon

The Construction Ripple Phenomenon is a phenomenon that is being instigated by the private sector, in which they began to build on areas near the newly constructed infrastructures, filling the voids because the government mostly concentrated their work in infrastructures such as ports, tolls, airports, and other major constructions (Mahendarto, 2018). If we consider these newly built infrastructures as the centers of a ripple, then the private-based constructions can be considered as the rippling effect of the development. Due to the government plans, these centers are spread across Indonesia, furthering the effects of the ripples.

Most of these privately based constructions are based on their intuition to seize the economic potentials of the areas around the government-sponsored infrastructure construction. A major example of the ripple effect can be seen in the Meikarta project in West Java. The Lippo Group bought the land and began the construction on it even before they have a strong legal basis for all of their area of construction (Mayantia, R, and Sumiyati, Y, 2018), and as of the time of this research, the project is still being engulfed in-law troubles. The pressure to follow the government’s infrastructure progress is oftentimes based mostly in the economic factor, as they wish to gain the most profit in property pricing before the rise of the land’s price. This economic reasoning spread the ripple even stronger and further, even to cities that are not considered as development centers as of yet, such as Yogyakarta. Yogyakarta is one of the cities that is being planned to become another center of infrastructure construction in the near future.

### The Current Situation of Yogyakarta

As a city that is in close proximity with two major development centers in the corridor of Java, which are centered at Jakarta and Surabaya according to the development plan based on regulation of the president of the Republic of Indonesia No.32 Year 2011, Yogyakarta is heavily affected by the ripple of the constructions. There are also major infrastructure development plans that are currently underway in Yogyakarta that is trying to boost the economic value of the city, such as the New Yogyakarta International Airport (Rachman, F., Satriagasa, and W. Riasasi, 2018) and the recently abandoned toll road plan that connects Yogyakarta and Semarang, another major axis in the development corridor. The rise of major shopping malls and high-rise apartment buildings and complexes can also be clearly seen in Yogyakarta. These are evidence
that the pressure of change is beginning to surmount in Yogyakarta, and it will, in turn, become a major factor in the evolution of Yogyakarta’s unique Genius Loci.

Yogyakarta herself is unique because it is the only city that has a still functioning palace complex as a center of the historic quarter. This area is strong in term of its Genius Loci, as it has strong architectural features and the citizen in the area identify themselves strongly with their neighborhood. In term of urban planning, it is a city that was built in accordance with an imaginary axis that connects the Mount Merapi with the South Beach of Yogyakarta, with the palace complex at the center of that axis (Karsono, B, and Wahid, J, 2008). But the current development of the city is changing that uniqueness, as the development is spread around the city, and new economic city centers grew outside that imaginary axis. These new centers do not necessarily comply with the unique architectural features of the city due to the lack of laws that enforces the protection of the city’s Locus outside the historic and protected areas of the city.

METHODOLOGY

In order to see how the generic buildings that grew to the construction ripple phenomenon affect Yogyakarta as an urban fabric, the research method of gathering data is thru live observations throughout the new city centers around the city, especially on areas where new major shopping mall and new apartment complexes are built. The survey is also being conducted to historic quarters of the city, mainly the palace complex area and the Malioboro area, in order to see the growth of the generic buildings in areas that have strong architectural traits. All the data that has been gathered after the survey will be then be analyzed thru interpretation method so that the research can correlate the growing generic building’s effects in the ongoing evolution of the Genius Loci of Yogyakarta thru primary data finding (Kohtari, 2004). The research will also have literature and theoretical studies on the correlating topic to have an assurance that the analysis conducted will be objective and done correctly. After the analysis process, the conclusion will be drawn on the steps on how Yogyakarta should react to respond to the effects of the construction ripple phenomenon and becoming more modernized without losing its unique urban characteristics.

LITERATURE STUDY
Genius Loci

The term genius loci has been around since ancient Roman times, but it was being connected with architectural theory by Christian Norberg-Schulz, who theorized in his book Genius Loci: Towards a Phenomenology of Architecture as a way to define a space is unique from one to another, and it is being defined and characterized by countless aspects of the surrounding elements where that place is positioned (Norberg-Schulz, 1980). The surrounding elements can be the built environments, as it is
the easiest feature one can recognize, but it can also
be the memory of the people who lived there, the
culture and the habit of the neighborhood.

As the city always grew and change, so does
the Genius Loci of that city. It evolves in line with
the construction process and the growth of its so-
ciety. That is why; there are some areas in which it
has the weaker spirit of place as the constructions
progresses, areas that are changing its spirit of the
place, and all the while in other areas; the construc-
tion process does not fully affect the surrounding
areas due to a strong presence of the spirit of the
place.

There are also places that have a strong pres-
ence of the spirit of place due to the strong cultural
background of the society that lived there. The im-
portance of the presence of a spirit of place will
affect the quality of life of those who lived in the
area, as it defines their sense of belonging to that
particular area and their willingness to serve and
protect their neighborhood (A. Kepczynska-
Walczak and B.M. Walczak, 2013). The stronger
an area has its own unique characteristics, the higher
the willingness of its neighborhood to protect it.

Generic architecture

The term generic architecture began to circu-
late when people began to take notice of how cit-
ties began to look eerily similar between one to an-
other. Rem Koolhaas began to write his essay re-
garding the generic city in 1994 as he started to
study the development of cities around the world in
the 20th century. In his views, the city’s most im-
portant elements are not its history or unique char-
acteristics, but more of their infrastructure elements,
such as bridges, roads, and others. Rem Koolhaas
also viewed that the history and the characteristics
of a city have become a hindrance to the city’s ad-
vancements, as it limits its growth flexibility. He
was quoted to say that the urban identity is similar
to a mousetrap in which more and more mice have
to share the original bait, and which, on closer in-
spection, may have been empty for centuries
(Koolhas and Mau, 1998).

Rem Koolhaas also argues that the generic city
began to grow without any urban planning, as it has
become a medium for investors. Inside such city
also stood the generic buildings, buildings that are
being constructed while mainly ignoring the memory
and history of its surrounding area. One that con-
nects a city and the other is the airport, which can
also become a symbol for this generic city. The
generic buildings can be easily found in the city’s
economic centers or around the main infrastruc-
tures of the city. Kevin Lynch has also noted that
the urban fabric of cities that are being built by
groups of generic buildings are hard to be recog-
nized and mapped, as such similar looking build-

Figure 2: how Koolhas imagined the future development
of the cities of Asia, image titled ‘Asian Cities of Tomor-
row’ Retrieve from: “S,M,L,XL” by OMA

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FINDINGS

After conducting the survey and observations throughout the city, mainly the city’s economic centers, such as the areas near the shopping malls and the northern ring roads where the development grew the fastest, this research found several findings.

The first finding is the huge surge of construction of shopping malls, high rise residential buildings, and hotels around the city of Yogyakarta. This is one of the most recognizable ripple effects in Yogyakarta as this development started only in the past 5 to 7 years, in the same timeframe with the planned development corridor made by the government. According to the data taken from the Skyscrapercity Forum Indonesia website, Yogyakarta is third in the number of high-rise buildings amongst cities in Indonesia, losing only to Semarang and Bandung (as in 2018, there are already 42 buildings with the height between 7 – 11 stories in Yogyakarta alone). There are also new shopping centers that are positioned in strategic spots around the city’s perimeter, mostly on the Sleman district. There are more than 5 new shopping malls that are already operational in Yogyakarta, and there are plans for erecting more shopping malls in other places.

Due to its size compared to their surroundings, and also, its positioning, these new shopping malls and apartments are becoming new landmarks for their respective surrounding areas. The shopping malls also created new economic sprawl that is spreading the city’s development into different smaller centers, as it catalyzed the development of smaller shops around the area. The current development of the area around the Ambarrukmo Mall can become a prime example of such a new economic center, as shops and residential areas grew rapidly around the shopping center since its advent. And in accordance with the rapid growth, there are also traffic problems in the areas around these new sprawls.

The second finding is that these new generic landmarks are usually being designed without regarding the unique characteristics of its surrounding areas. More than half of the buildings have a contemporary architectural style that does not correlate with the city’s more Javanese classical architecture traits. Some even introduced a contemporary interpretation of ‘European style’ architecture with the introduction of western classical column order, ornaments, statues, and proportions.

There are some, however, that tried to implement the traditional Javanese architectural traits into their building, but they are in the minority. This development and architectural approach is the embodiment of Indonesia’s generic architecture that can be found in other developing cities throughout Indonesia. As they are the new landmarks of the surrounding areas, the surrounding buildings are being affected, as more and more generic buildings in smaller scale began to rose and spread around the landmarks. The main aspect of this finding is that these developments are happening in the city’s perimeter areas, grey neighborhoods that are lacking a strong spirit of the place.

The third finding is that these new generic buildings are being constructed without considering the needs of the city of Yogyakarta. In the case of Yogyakarta, the development of high-rise apartment buildings and residential complexes was not done to answer the growth of population in Yogyakarta or the rising number of tourists (Colquhuon, 2013).

Figure 3: The locations of apartment buildings and shopping malls in Yogyakarta. Retrieve from: personal survey and analysis
The surging development can be attributed to the
construction ripple phenomenon, as this phenom-
emon is being based on an economic factor, and it
pressurizes the private sector to gamble their in-
vestments on potential locations, such as the city of
Yogyakarta. They would buy the land before the
price rises, and when the area finally becomes a
center of development, they can sell their invest-
ment at a high price. There is also the constant prob-
lem of water shortage for areas around the newly
built buildings due to the new buildings uses shal-
low artery wells, a problematic issue that has caused
numerous protests and demonstrations from the
local neighborhood towards the new buildings
(Kurniawan, 2018).

Some locals have also refused the construction
of these new buildings, and for some buildings, these
refusals have delayed their construction indefinitely
(Colquhuon, 2013). What is interesting is that these
findings are found even before Yogyakarta becomes
a major construction center in Java Island’s corri-
dor of development. One may wonder on how
much the ripple would affect Yogyakarta’s urban
face in the future when the government began to
concentrate their development in Yogyakarta. And
to surmise the findings, the research has concluded
four major interferences that the generic buildings
have inflicted in the evolution of Yogyakarta’s ur-
ban fabric, which are:

1. The generic buildings caused by the construc-
tion ripple phenomenon are oftentimes being de-
signed without any regards to the unique archi-
tectural traits of Yogyakarta

2. The generic buildings are being built mostly on
the perimeter areas of the city, with such a scale
that they are becoming the area’s new landmarks

3. The construction of the generic buildings does
not correlate to the city’s needs, physically nor
socially

4. The construction of new buildings is more pri-
oritized than the preservation and conservation
of old buildings that have unique architectural
traits of Yogyakarta

**DISCUSSION**

After reviewing the findings and the study of lit-
erature, there are three major issues that should be
addressed in Yogyakarta due to the construction
ripple phenomenon’s effect of enticing the devel-
opment of generic buildings in and around the city.
The first issue is the city’s future evolution path in
regard to its spirit of place being affected by the
construction ripple phenomenon. The second issue
is how the city should handle the ever-rising num-
ber of generic buildings in regard to their nature of
being built without regarding the city’s needs. The
third issue is how to prepare Yogyakarta to take
the impact of becoming a future ripple center.

The rapidly rising number of generic buildings in
the city of Yogyakarta is concrete proof of the con-
struction ripple phenomenon effect on areas that
are near or around the infrastructure construction
projects done by the government. As this type of
buildings grew in number, they are becoming more
and more dominant in determining the Genius Loci
of Yogyakarta. Their scale with respect to their sur-
roundings also added their impact to this evolution.
As a living and growing city, such evolution is a process that cannot be evaded. Yogyakarta is on the crossroad on whether she would accept the rippling effect of rapid urban modernization, in which she would lose her traditional architectural characteristics for a more generic urban face, or she can try to protect her spirit of the place. In the case of Yogyakarta, a city rich in culture and history, losing its distinctive trait for a more generic approach is something that should be evaded. Even in the present situation, a unique Spirit of Place is still an important aspect for a city to thrive. That is why the protection of Yogyakarta’s unique Spirit of Place should become the main goal of the city’s future development, regardless of its status as a center of development or not.

There are several arguments that can be said to support the statement. As has been stated by Norberg-Schulz, strong Genius Loci can draw the residents in the area to become attached to their neighborhood as they can identify themselves as part of the Locus itself. Areas that are lacking unique characteristics can become unsafe and uncomfortable to live in. An example of such area is the Sleman District in Yogyakarta, where most of the generic buildings are being developed. Coincidentally, Sleman also holds the status to have the highest crime rate between the five districts in Yogyakarta in 2017 according to the reports from the local police. The lack of a medium for the neighborhood to identify themselves to their surroundings reduces the ‘eyes on the street’. They needed some sort of attachment, a collective memory, culture, or history that can help them to connect themselves to the built area around them. Such attachment can entice people to actively involve themselves in the effort to better their surroundings (Jacobs, 1961).

The danger of uncontrolled development done by the construction ripple phenomenon has also disoriented people who lived in the area of development. The rapid growth of apartment buildings and shopping malls has presented the city with new landmarks due to their size and their effects on the surrounding areas. Unfortunately, as has been seen in the survey, most of these buildings are being designed with the idea of becoming the new icon of the city. They, as a generic architecture are often designed, are being designed without regarding the city’s traditional architectural traits.

The rise of these ‘icons’ will disorient the people that lived in the city, as the city is being segmented by these landmarks without any silver lining that can connect most of them together. These massive buildings are also affecting the surrounding area’s developments, as smaller-scale buildings are also being designed and built without regarding the Spirit of Place of the city.

The pressure of development can also endanger the historic city quarters, and there are already cases of how new buildings are being constructed at the cost of destroying historic buildings. And thus, if this continues, eventually Yogyakarta will become a complete generic city, a city without any unique trait that cannot be differentiated from other similar cities. This can also affect the tourism of the city, as one of the main selling points of the city is its unique culture and historic city quarters and buildings (Timothy, 1999). And as tourism is one of the city’s main incomes, a reduction of tourist number will affect the capital power of the city to thrive.

In order to reduce the effects of the construction ripple phenomenon towards Yogyakarta’s Genius Loci, the government and the citizen of the city must cooperate to ensure that new buildings have to include Yogyakarta’s unique architectural characteristics into their design. Firmer rules and regulation should be implemented to ensure the protection of the Genius Loci of Yogyakarta, even though this proposal could limit the freedom of design of new buildings, as such the negative trait of historic locus mentioned by Koolhaas. Yogyakarta must also try to formulate the correct architectural traits that should become the city’s design guideline that can be followed by the new buildings. Such traits can be drawn from areas that have distinctive architectural features, such as the palace complex. That historic quarter is a specimen of a complex embodiment of traditional Javanese style of Yogyakarta (Tohar, I, Hardiman, G, and Sari, S R, 2013).

It is also to be noted that this approach does not fully ban the entry of new architectural elements into the city, as long as they are in line with
Yogyakarta’s architectural traits. New elements are essential for the city’s growth and evolution, as they can give distinctive color to the urban fabric. There are also cases in which the introduction of a completely new element can revitalize the surrounding areas, such as the Pompidou Center in Paris. The building became a new landmark to the city with its unique architectural characteristics, but it also contributes to the socio-cultural advancement to the once neglected neighborhood around it (Piano, 2014), revitalizing the area around it, and the building eventually becomes a landmark in itself for the surrounding neighborhood.

Such an approach can be done to areas that have a weak spirit of place around Yogyakarta, such as the perimeter areas. As for the old city quarters and historic buildings, stricter rules and regulations must be enacted in order to protect the spirit of place of those areas. Most of the historic buildings are located in strategic areas that can be economically profitable. The economic pressure from the ripple phenomenon will see these buildings as targets that should be reached. Cases in which historic buildings are being demolished in order to make way for new buildings, such as the case in the Pajeksan street, where a historic building is being replaced by a modern hotel, cannot be repeated in the future.

Above all, these historic buildings are instrumental as the built fabric of the city’s collective memory (Rossi, 1984). As for the second issue, based on the findings, the construction ripple phenomenon is affecting Yogyakarta’s ability to function properly and effectively as a city. The major trait of the construction ripple phenomenon is the wagering of investment by the private sector in areas that can become a major development center in the future. Due to this, the developments oftentimes do not correlate with the city’s needs. In the survey we found out cases in which the new buildings are affecting the water supply of the surrounding neighborhood, drying up their well (Noviandri, 2015).

The rise of new economic centers in Yogyakarta is also affecting the traffic of the city which in turn is affecting the well-being of the citizen and also tourists. This kind of development will only get worse if not being handled correctly and fast, as Yogyakarta is becoming a development center in the near future. As has been mentioned, the Genius Loci of a place is not only factored by the built environment, but also by its citizen because they are the keeper of the memory of the area (Norberg-Schulz, 1980). If the city becomes uncomfortable for the citizen, they will move out of the city to find a better one, and Yogyakarta will lose its Genius Loci nonetheless, even though architecturally and urbanely, the city maintains its architectural traits. As such, the social problems that are being caused by the rising number of generic buildings in Yogyakarta must be dealt with.

In our previous argumentation, we have concluded that the better pathway for Yogyakarta is to keep its unique spirit of the place, so we must also protect the needs of its citizen also. Yogyakarta must be able to stop the private sector’s economic pressure to build and fill the voids of the city. What Yogyakarta can do is to have a complete and thorough analysis of the areas that have not been defined clearly. Yogyakarta is defined clearly in the palace complex and its surrounding historic quarter, but it is sorely lacking such definition in the perimeter areas, such as the Sleman District.

The lack of the area’s definite function opens up the interest of the private sector to develop such area into their liking, ignoring the area’s actual potentials. The private sector will oftentimes develop those areas into a residential or commercial center, while as a city; Yogyakarta should have balanced functions throughout the regions. A strict Master plan that accommodates the needs of the citizen can eventually control the advances of the private sector, and at least regularize their development. If Yogyakarta has a clear designation on how she would advance in regard to her evolving Spirit of Place and a clear definition on what to do to her perimeter areas, then there would not be a problem when Yogyakarta began to become a ripple center of construction in the future.

Yogyakarta would surely become a more modernize city, perhaps with more complex buildings and new functions in some areas, but she would not lose the unique characteristics that separate
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herself from other cities. The presence of a strong yet easily recognizable locus will also invite the citizen to be able to identify themselves with the surrounding neighborhood, thus adding their willingness to take care of and protect the surroundings.

CONCLUSION
The construction ripple phenomenon’s effects in Yogyakarta can be seen most notably in the presence of the numerous generic buildings that are influencing the urban fabric’s evolution of the city. With their development and positioning being uncontrolled, they are also affecting the quality of life of the citizen of Yogyakarta, lowering the comfort level of the neighborhoods due to the problems such as water, traffic, and surging criminal rate. The ripple effect cannot be stopped, but it has to be controlled by avoiding the city of Yogyakarta’s transformation into a generic city. The research concluded that there are three main steps that have to be done in order to maintain Yogyakarta’s unique characteristic traits.

The first step is the combining effort from the local government and the citizen of Yogyakarta to reduce the growing number of generic buildings in the city, by having stricter rules and regulations and also by inviting the citizen to participate in the effort, so that they can identify themselves more with their surroundings.

The second step is to have a thorough analysis of the unique architectural traits of Yogyakarta itself, in order to have a definitive guideline of design that has to be applied to the new buildings in the city, especially for buildings that are huge in scale, as these buildings will become the new landmarks of the city, and they will, in turn, become the major elements of the city’s urban face.

The third step is to have a complete and thorough analysis of the areas that has not been defined clearly, especially areas in the perimeter of the cities and areas that are in a distance from the current centers of economy and development, in order to regulate the private sector’s advancement in such area, dissuading them from wagering their investment due to the pressure of the construction ripple, and also to have a clear understanding of the city’s strengths and weaknesses. If these steps can be done correctly, then Yogyakarta will be ready to accept the rippling effect of infrastructure construction. The modernization process will be done without sacrificing the unique Spirit of Place in the city. Yogyakarta will also already have sets of rules and regulations that will become the guideline when the city, in turn, become another development center in Indonesia.

CONTINUATION OF RESEARCH
To have the definitive steps on readying the city of Yogyakarta to absorb the ripple effect, this research has concluded the three main steps that the city can follow in order to keep its unique Spirit of Place. The following researches can focus more on each of those steps to have a much clearer guideline for Yogyakarta and its citizen to follow.

REFERENCE
lishers.