POST ECONOMY CRISIS ARCHITECTURAL SPACE
“TRANS–FORM–ATION“ IN MANYAR KERTOARJO DISTRICT, SURABAYA – INDONESIA

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Abstract
During the economy crisis 1998 in Indonesia, has caused a lot of people faced the unbalance demands of life. Surabaya, as one of the greatest city in Indonesia has also suffered of this crisis. This chain impact has a great influence through economy sector, so that the property sector in this city.

Crisis in 1998 has made a lot of people sold their property, including their private residence property to the new investor in order to get more cash to support what people and their family needs. This phenomenon has been caused a great change to the urban architecture and the usage of urban --- urban land use , and architectural space itself. The Manyar Kertoarjo District has been chosen, in this case this housing area is keep rapidly grow and develop. The growing process of the district urban architecture is still in progress, together with the developing of global economy condition. From the previous observation we can see that the impact of the crisis has caused the transformation of the old residential into the new various mixed use of space, without physically change the entire architectural part. Now in new millennium, research has shown us of how people in Manyar Kertoarjo use the opportunity in using the spatial transformation of their house as the process of “place making.” In the other side we can also see how this new program transformation process has been changed the spirit of place and the new city architecture itself. The previous research shows that the spatial usage transformation has increased people income. This symbiosis changing has caused the growing of informal economy sector, which support the new comer investors.

Through the theoretical understanding of Tschumi’s Events Space, Shirvani’s Theory of Place, and Lynch’ theory about image that make the city, this paper tries to describe how people use the spatial transformation in order to create the civic place thus this area could change new image to the city architecture. This research also hopes to give a new perspective towards a better architecture in order to create a new experience of place through old spaces. In this case how people transform s place of dwelling which is private space into a space that more public.
Research Introduction

Manyar Kertoarjo district is an interesting district of being observed. Since we know that this district was developing rapidly, especially after the economy crisis in 1998 happened, there are a lot of spatial and physical transformations have occurred. Since we have the opportunity of studying the area by documenting and observing it, it will become great values in the future if we can develop design ideas in order to continue build the city district by studying the phenomena. Previously we saw that architectural space that being formed by spatial transformation that “accidentally” happens as what we called “spatial evolution”, thus Architects and designers saw the phenomenon as a chance which can become interesting observation object. Through this research we try capturing the “genius loci” of the place and analyzing the architectural transformation that impact the urban corridor. Study objectives of the research include documenting the site as one of the most vibrant district in eastern city part and one of the site heritage of Surabaya; to learn more of how people use the space and how the influence of it, not only in micro scale, but also in macro scale (the influence to the urban architecture itself); to look forward the opportunities of developing both formal and informal sector and give inputs to the architects and city planners of how the architectural space can be further developed. Paper objectives includes sharing the experience of how people protecting the old element of architecture and its spatial contents, which can be brought into a new meaning of space; to share the experience of how the process of spatial and program transformation can be seen as a generator in order to keep the old places sustained and even improving the economic value of the space.

This research is conducted by teaching staffs and students of Architectural Design of Architecture Department of Petra Christian University.

Research Methodology

The research has conducted as qualitative research. Some research documentation, observation, and exploration have been done to support this research. This research has done documentation, direct site observation, and direct observation and dialog through the people that live in the housing area to support the primary data. Literature study and comparative study has been done to support the secondary data.

Study Objectives

- To document the site as one of the most vibrant district in eastern city part and one of the site heritage of Surabaya.
- To learn more of how people use the space and how the influence of it, not only in micro scale, but also in macro scale (the influence to the urban architecture itself).
- To look forward the opportunities of developing both formal and informal sector and give inputs to the architects and city planners in how the architecture space can be further developed.

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1 Quoting from Aldo Rossi (Rossi, p. 103) that genius loci was primary importance as it is in the classical word, which is the situation of the site, which is bound between the site itself and the local divinity, an intermediary presided over all, that was to unfold in it. The concept of genius loci was bring us to the concept of locus, which has been defined by Rossi as the relationship between building and a certain specific location. The uniqueness of the architecture itself is being stated as the locus.
Paper Objectives

- To share the experience of how people protecting the old element of architecture and its spatial contents can be brought into a new meaning of space.
- To share the experience of how the process of spatial and program transformation can be seen as a generator in order to keep people sustained and even increase their quality of live.
- To gain inputs from other participants in order to get new ideas and new direction towards better development for the city.

Theoretical Background

Economy crisis has caused many problems to the country, it also change general infrastructure of the nation. A lot of cities in Indonesia have shifted after the crisis; those which are struggle have left structural traces in adapting the condition. Through the image of the city themselves, we can read the process of how city struggling from the crisis by various infrastructure adaptation processes. One thing that we can learn of this country is from Manyar Kertoarjo district in Indonesia, by transforming the space as the process of survival from the crisis. Hamid Shirvani's and Kevin Lynch' theories have helped us in order to describe the transformation process.

According to Shirvani’s theory about place\(^2\), research tries to understand how this phenomenon happens in several civic spaces that spontaneously occur because of people reaction. To visualize those understanding, we use Bernard Tschumi’s Event Space. Research thought that by the theoretical understanding of “programs insert-ation” of the Event Space has made the existing space transformed as interesting spatial phenomenon. By Schumi’s theory of the Event Space\(^3\) he mentioned that “event, space, and movement” has tried to explain about the interaction between ritual or event that produces the space itself. According to Schumi’s theoretical understanding, it has been visualized that space contains of invisible layers that create the space\(^4\). As being mentions by Bernard Schumi, and based on previous research that being done, the event has stated the phenomenon of space. It has also shown that space can be generated by several events.

According to Lynch\(^5\) theories about creating the new image of the city, we believe that the district seems to look forward creating a new identity to mark the city zone. Lynch has mentioned that the process of marking the zone is being needed in order to identify and structure our perceptual world and illustrate the special relevance of this quality to the particular case of complex, shifting urban environment. Research observed that those understanding were applicable in this district after the process of spatial transformation in the post economic era.

Fig 2 – The Invisible Layers, The application of theoretical understanding

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\(^2\) Place theory, Shirvani (1981)  
\(^3\) Tschumi (2000, pp. 16 – 39), Damiani (2003) . Tschumi mentioned that the event has created the experience to enjoy the space. Events have created various ambiances or spatial mood that being illustrated as the invisible layers. The invisible layers are spatial tissues that cannot be seen, but can generate and produce spatial tissues (in this case public event-space) that generate other city activities support in order to create new nodes in the districts.  
\(^4\) Shirvani (1981)  
\(^5\) Lynch (1960), pp. 10 - 12
By exploring the Tschumi's event space and develop further understanding of the basic theory by using the metaphor of the city as *urban playground*, we describe that event space can be further applied as events that contain of spatial programs that change the space and being called as the invisible layers. The invisible layers were being inserted to the existing space or basic layers, thus made gradual change to the entire existing of the original spatial layer.

This paper also tries to describe of how those event space phenomenon changes some points as how Lynch has stated about several points that make the city:

1. **Landmark**
   The closest landmark that occurs is at least 500 m from it. Those landmarks are the Balai kota, Pakuwon City Gate, and Airlangga University. The transformation of space in the district has given prominent to the existing landmarks. Those landmarks are being formed by open space or gigantic architectural space. The existing landmark has made it as interesting public space that creates public activities. These activities support has interest people as pedestrians, drivers and passeners, and neighborhoods to enjoy the cityscape and urban corridor along the Manyar Kertoarjo road.

2. **Nodes**
   Nodes can also be described as supporting programs that happens around the district. Close by the area, it being interpreted as strong places of activities. Some nodes that can be found in this area are schools, offices, factories (lies along Jalan Kenjeran), and Residences itself. Most of the nodes are potential target market for these areas that is why private sector takes it as their benefit in transforming it into more valuable function. Research also noted that at least 20 schools and 5 universities can be reach in less than 1 kilometer from this area. Other interesting places that can be note as nodes are delta plaza shopping center, Galaxy Mall shopping center, and KONI headquarter. Those places have generated new programs to the district.

3. **Paths**
   Paths that can be found here is busy roads, which are main artery to the eastern part of Surabaya, and main access to new district like Pakuwon City, Kenjeran Beach, Suramadu Bridge, and Sukolilo Estate. Pedestrian is not strongly stated, as most other district in Surabaya. There are none access especially for pedestrians to enjoy this corridor. To reach the place, public must use vehicle. The parking zone is terribly using almost half of the road itself. According to the observation, the existing of the space has cause this paths interesting enough for informal investor, such as hawkers and foodstalls investors. It lies among several schools, public buildings, malls, and housing estates. The width of the roads has also interest of being transformed into parking zone. In our observation, especially on the weekend and at night time there is traffic jams along this road.

4. **Linkage**
   The existing activities support generating new programs for this corridor as a city linkage. Some nodes, as being mentioned above, could generate this area as a strong linkage to the eastern part of the city itself.

5. **Edges**
   The borders that marks the district are jalan Kertajaya, jalan Dharmahusada, Dharmawangsa, and Bundaran ITS (Campus Circle) as the end of the district.

As being mentioned previously that events has generate invisible layers that make a new direction towards spatial transformation. This paper use the term "Invisible Playground" as the metaphor of place that brings new experience to the people as urban playground. The layers happens in the impact of several phenomenon of activities such as:

* Schools and Campuses has cause a lot of people needs refreshments during certain times. Students also need a place which can become "urban relieve". Places such as

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6 The metaphor of urban playground is being mentioned in the discussion by exploring the district and observing the phenomenon that city needs references in order to make the city space more enjoyable. Some references that make the image soaked in our memories and meanings must being created in order to keep experiencing the city as memorable place by setting up some icons and signs that being formed by fixed elements, such as signage, façade, and landscape, and people as the moving elements itself, those are the urban parts and the playground as the spatial settings.
eating place and restaurant would be interested to develop as a linkage along the corridor.  
- Upper class housing perhaps is the most important target market. A place that provide lifestyle needs would be a great things to be consider in developing these area. A place for upper class urban such as beauty salon, beauty centre, restaurant, and boutique has changed the existing of Manyar Kertoarjo main corridor.
- As an important linkage for the eastern part of Surabaya has made some places transformed their parts and become highlighted part in eastern Surabaya district.

The layers that create "The Invisible Playground":

1. Interactive Activities
According the observation that happened in public open space in Surabaya, most of the public open space has been filled by people because they can interact with other people. Nowadays, communication and interaction can be primary needs to human, especially for them who live in city and metropolitans. Public places which offer interactive activities, such as café, where people can meet and communicate each other can be attractive for people as a playground in the middle of the city. The activity that happens can be a strong program to create a place as Shirvani mentioned, which can strongly supported by several nodes around the district.

2. The Element of Surprises
The elements of surprises could be lighting that creates vibrant kind of façade skin, colorful interior spaces, and highlighted signage that has attracted viewer to this area, especially at night. The architecture that we found has been competing one another in order to become the most attractive. This can be seen as the element of surprises after a long and dull corridor of Kertajaya and Bundaran ITS. If people drive along the corridor from Kertajaya Road, they can feel the dramatic change from plain, and dull ambience to an interesting city interiors. The elements of surprise can attract people to stop by and enjoy the ambience. The element of surprises is being created by architecture itself. Those surprises serve a new experience of space that want to state different function between the old or existing space to the new program.

3. Emotional Bond
According to Shirvani’s theory about the theory of place, space could be enjoyed if there are emotional bond between users and the space itself. The emotional bond between space and users happens if the space gives meaning to the users which in public understanding it usually stated as function and meaning. In that case, the event space has already been stated. The program is how to superimpose public needs and design so this area can be known be neighborhoods as vibrant nodes and strong linkage for other district.

4. Security
People will use the space if there are safety guarantee. In this case safety means public privacy of spatial usage and comfortable in using it. Since people faced threats and riots during the economy crisis era, people try to make their own private barriers in order to keep them using the public space. Boundaries, spatial protection and social barriers are being set up by people, but in the other side it also create the “invisible space” that can be use for other programs as invisible layers. Thus by creating those layers that being mentioned above the accidental transformation that being done by the private sector themselves can be enjoyable and easy to be experienced by local residents. This has been visualized by the research mind map that being described below. As being stated below, in this research mind mapping diagram:

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7 Boundaries, social barriers, and spatial boundaries were being set by people in order to protect the main function of the space. Research showed that these barriers have never been occurred before the economic crisis. Nowadays people use these barriers also as commercial space in order to do business. That is why it being called the invisible layers.
As being mentioned that city is a symbol of a complex society, which also telling us about the dynamic of the society itself, every step of city development more or less is a process in order to respect of the time. During Orde Baru era (before 1996) most of the country development is being centralized and controlled by center of the nation, which is Jakarta. Most of the development is focused in Java Island, and our capitol city. Java was developed rapidly. During the time, most of the infrastructure development is being controlled by former President Soeharto and his fellows, such as mega structure project, highways, and prestigious projects. During the economic crisis, the political condition became unstable, riots, mass protest, and labor demonstration happened everywhere. The freedom of speaking up was everywhere, and democracy became euphoria for the people. Economic and finance sector was unstable, bank interest was extremely high, so that people abandon business. The economy condition were gradually recovered after 1998 during the reformation era, when former President Soeharto step down, and the new presidents afterwards tried to set up new economy regulations in order to recovering the nation. The new regulation has caused gradual decrease of bank interest and recovered the currency. The regulation has started the economy sector back, so that middle low business, like entrepreneurs and home industry.

Manyar Kertoarjo District In Surabaya

The District has been set up by Sinar Galaxy Developer in early 1980. In that time, Eastern Surabaya existing is mostly swamps and rice fields. The district lie in Kecamatan Sukolilo and it being develop as housing estate for the middle up class urban family. In mid 1980, Manyar Kertoarjo has already been developing to become a pack
housing area. So that the district
developing, and divided into 3 main parts,
that being recognized by 3 roads from this area, which are Manyar Kertoarjo, Dharmahusada,
and Kertajaya Indah. Kertajaya Indah is the latest part of the district. Each of the district parts is
recognizable by its architectural appearance specification.

Manyar Kertoarjo has the strong influence of modern architecture; Dharmahusada Indah has
mostly the influence of European and eclectic architecture. Kertajaya Indah part is the transition
between eclectic and minimalism style in architecture, as the latest part of the district that being
developed. History recorded that in some part of the district once suffer from 1981 political riots.
During that time, there are many 2 stories houses that being attacked by unknown people that
caused damage of the destruction. It cause many facades of the houses are not the original
façade as we can see right now. Nowadays there are some traces of the riots that happens,
especially along Manyar Kertoarjo. Manyar Kertoarjo is the oldest area of the district. Some
façade has been transforming into more solid and close appearance. In the interior parts, there
are a lot of house that use steel bars in order to protect the interior parts from terrors of the old
days. Beyond 1997, most of the areas are residential places. Typically, it contains of 1 or 2
stories private landed house, with front yard and backyard. People who stay here mostly are
single family, from middle up class, with minimum two private vehicles owned by themselves.

In general, usually they are upper class workers, traders, professionals, businessmen, or
entrepreneurs. They work mostly in the city or get their own office place in suburb. House can
become their private dwellings and leisure space for the entire family. Beyond 1997, most of the
areas are residential places, own by private sectors.

Typically, it contains of 1 or 2 stories private housing, with front yard and backyard. People who
stay here mostly are single family, from middle up class, with two private vehicles owned by those
families. Now, most of the family who stay here has already had second generation; children inherit the
house from their parents or old middle up couple. During 1997, Indonesia has suffered from
multidimensional crisis. The economical crisis that happened before the political crisis, and after the
former President Soeharto step down, has caused a great impact to the entire country, including city
life. Globalization, money regulation, and new
political direction have take control of the country reformation at the time. Because of the riots that happen in 1997 and 1998, there are a lot of people leave the country, especially the rich people, so that they sell a lot of their private property, including private residential.

After the riots in 1998, new reformation era has begun, and people who left in the country start to re-manage their life. Some tries to start the new life, but it still difficult seek good job vacancy at the time. Some people who left the country were returning, and some who wealthy enough, try to become entrepreneurs by their own property. Some transform their house, especially the house which facing the main roads, to become multi-usage space, and some other rent parts of the house for other usage, such as cafes, service station, show rooms, and other function. That spatial transformation has caused trans-function of spatial usage, for almost along the main roads. The existing of the roads has changed, not only in the inner site of the house, but also give a gradual impact to the street use. Some parts of the streets have been change as parking facility that cause traffic jams in several busy hours by the enplaning function. The other problems also provoke by the informal public sectors, such as food stalls and hawkers, that take house pedestrians and road’s side which cause some hawkers are rent some of the housing parts, but some others are the old occupants of the street.

Spatial Transformation : The Application of The Invisible Layers

As being mentioned by Trancik\(^8\) the first step in the urban spatial design process is to study the evolution (transformation) of the structure of a place by developing descriptive biographies of growth and change. In those studies, we noted major events that influence the background of the site, including the definition of important growth periods and several changes that mark the place. After the process of analyzing and observing those data that being found in site, this research saw that people use invisible layers and develop the space by using the spatial transformation.

As being mentioned above, these transformations has solved spatial problems of how people protecting the old element of architecture and its spatial contents can be brought into a new meaning of space; to share the experience of how the process of spatial and program transformation can be seen as a generator in order to keep the old places sustained or even increasing quality of live, especially local income of the people. We mentioned that the transformation could be divided into 2 main category. The transformation that being found in this observation is being sorted by:

- Spatial Function Transformation, transformation which basically change the function or the program of the space. Since they changed the program and the spatial needs, those transformation mostly followed by form transformation.
- Form (Skin) Transformation, which only change the architectural skin. Most of the building use the "face-lifting" process, only to camouflage the façade appearance of the building so it will attract people who see it.

Spatial Function Transformation divided by:

1. COMPLETE TRANSFORMATION

This is the most total of spatial transformation that being found in the observation. In this case, spatial transformation is derived of physical transformation. The total change of form, spatial order, and functional transformation has caused the total transformation of architectural space. Observation has noted:

- Complete physical transformation as form of creating new meaning of space, from private function to public place.
- People creating strong boundaries in order to mark and separate the public and private.

\(^8\) Finding Lost Space, Trancik (1986) pp. 228 - 229
- The insertion of new programs in space, which creating completely new layers of space, which works more effective during day and nights that creating invisible layers that can be controlled into various spatial layers.

Fig 7 – From up left clockwise : Tungku Rempah Restaurant, Prima Rasa Restaurant, warung Sederhana Restaurant, and Komugi Bakery.

The Study of Complete Spatial Transformation:

Fig 8 – Study of Complete Spatial Transformation. The yellow circle is marking private residential zone. The blue circle shows how it being transformed into public commercial area. Light brown circle shows the service zone.

2. ZONING TRANSFORMATION
We found that owner only change some part of the residential zone (private) to commercial zone (public). Some building keep protecting their private zone and make barrier zone as an in-between zone, some zone of the house has been being rent and transformed the function of the residence as commercial function, such as beauty salon, restaurant, office, etc. The observation has noted that this could be influenced by cultural background by most of the owner of the houses. People who stay in this area mostly are Chinese, who are mostly traders. Chinese people usually live in shop houses in Northern Surabaya. After Surabaya developing, the second generation, who inherit family business and chose to stay separately still keep the culture as being traders or entrepreneurs. They use some parts of the house and set it as space of keep doing business, the transformation is being shown by this analysis:

Fig 9 – Study of partial Zoning Transformation Typology: The yellow zone shows the existing residential zone. After spatial transformation, study shows that the private residential zone has changed and only left almost half of the existing residential zone. Upper image is the transformation of Homemade Cooking Restaurant and the lower part is the
3. MULTI USE SPACE TRANSFORMATION
This transformation is the most unpredictable spatial function application through the existing of space. The owners usually rent the space for temporary tenants; such as hawkers or food stalls which only opens at specify time.

It being described that:
- The old layers (the existing of space) has superimposed with the new activities which are inserted. The invisible layers have been applied as spatial layers that can be controlled as “turning in” and “turning off layers”. The activities occurred has stated specific spatial layer, and in other period of time the activities changed, so that the layers will also change. Some of the layers which are not active being turned off and the active layers become turned on.
- Spatial Boundaries became blurring, and people makes social boundaries in order to protect their private zone.

Through this kind of spatial transformation, we can see that the invisible layer is clearly stated, by spatial layers that being state differently in daytime and night time. In Automobile Repair station, we can see that in daytime it only serve as repair station, but at the night time, those layers changed into night café and also place for young people meet. In other side, some community like young age community, teenagers, and auto club members use this place as a place to hang out with their group.

4. FUNCTIONAL TRANSFORMATION
Research shows that this kind of transformation has served the most valuable and economic reason of transformation since people did not touch the architectural (physical) parts.

Research describes:
- The re-use of old existing has
- Boundaries between private and public has been stated by transition space, that mostly occurred by the existing. People only develop the existing of front yard into parking zone or foyer as transition space.

FORM / PHYSICAL TRANSFORMATION:

1. “Skin” Transformation
Most of the transformation is to uplift the facade of architecture (by renovate the skin of the building). Mostly, they do not change the layout of the building, only by tearing down some parts of the space. This transformation is only to create a new image of architectural space. Most of this kind of transformation has also changed the function of space.

2. Vertical Transformation
Vertical transformation is the most suitable spatial development by stretched the space vertically, so that the space can be enlarged in order to fulfill the spatial and functional needs. Some of the building which use this kind of transformation has created multi use of function, for example the case of 21 Café use the first storey as automobiles show room, 2nd storey for café, and the 3rd storey for multifunction hall. This kind of transformation has been maximalizing the spatial usage within limited site and minimum cost on site investigation.

3. Horizontal Transformation
Some buildings are politely obeying the Floor Area Ratio for this area, which is not building storey more that 3 stories height. Some who realize it choose to stretch the space horizontally, by rent or buy the site next to its building. Some of the building has stretched its site and its space. Some of them have realized that parking has become their biggest problems, but some of it needs to develop the space for functional reason.
Summary

- The process of analyses of spatial transformation that occur in Manyar Kertoarjo has stated that insert- ation of new programs can bring transformation of private zone to become more public. Off course those shifting have caused several effects that can be brought further studies, such as architectural studies, human behavioral studies, urban studies, and ecological studies.

- The impact of the architectural space transformation has caused several outputs. Research shows that the process of transformation has:
  1. Maintained the continuity of the street wall that lies between Kertajaya corridors along to Kertajaya Indah Corridor.
  2. Shown the various individual designs, especially that being exposed in the front façade of the building. Those exposures has caused chaotic to the urban atmosphere along the Manyar Kertoarjo – Kertajaya Indah corridor.
  3. Some of those transformations have not been respectable enough to the existing of the neighborhoods, skyline, rhythms of facades and other spatial elements.
  4. Enhanced spatial patterns to the urban corridor, but it need further study to make it better design to create better image in the entire Manyar Kertoarjo Corridor and the district.
  5. For urban designers and planners, parking will become a great problems, it needs a big concern from them and off course, city government.

- Beside the growth of economy sector post – economy crisis in Indonesia, the evolution of architecture space is by the means of local culture. Research believes that culture and habits has produced the evolution of function in space. Those caused spatial transformation.

- Communication is an important part that plays the role in our modern days. The phenomenon of Communication and technology has brought new invisible layers through the existing of space. Research believes that communication has generated more public places to be set up in the modern city nowadays. It creates new programs to architecture that create further city spaces.

- As being mentioned that city itself is the powerful symbol of a complex society, thus the city transformation is the process in order to fulfill the dynamics of urban complexity. We thought that some places are transforming as the part of the process reclaiming the city space as public space that can fulfill urban needs.

- Further development and better planning for this area would be necessarily needed, since this area is now being famous enough as culinary tourism attraction of Surabaya. Sharing from other place experience will become interesting inputs to this paper. It will also support our city facing our 2030 national goals, which stated that Indonesia should be one of the well developed countries.
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**Image Source**

Fig 2 – 8 : Private documentation

Fig 1, 7- 10 : Architectural Design Ar. 100 - Student Project Report academic year 2009 – 2010 ; “ Eksplorasi Tempat Makan di Manyar Kertoarjo “ team 1 & 2