An Application of the Contextual Operation Theory to a City
Focused on Busan, South Korea

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Abstract
Recently, there have been various attempts to recover the quality of urban life. It is obvious that the problems of modern cities have brought a loss of living quality and the exclusion of inhabitants, but there has not been a proper evaluation of these attempts, due to the absence of a theory focusing on quality. This thesis attempts to turn Pepper's 'contextual operation theory' providing insight concerning quality into an urban theory based on Rossi's urban thought, and confirm the values of the theory by applying it to Busan. The 'contextual operation theory' is classified into three types; 'successful working', 'verified hypothesis', and 'qualitative confirmation', and suggests possibilities for solving a problem correctly through 'qualitative confirmation' which deals with quality and texture together. Furthermore, to deduce the quality and texture of an event, this theory suggests the necessity of qualitative circulations between hypothesis and perceptual experience. The similarity between the 'contextual operation theory' and Rossi's 'urban artifact' confirms the possibilities of this theory as an urban theory. By roughly distinguishing areas in the city of Busan into three types based on this theory, the authors can estimate both a way in which quality is treated and a direction by which to recover it.

Keywords: contextualism; qualitative circle; Aldo Rossi; urban theory; Busan

1. Introduction
1.1 Background and Purpose of this Study
Cities have been developed with the growth of civilization. Traces of dwelling sites have been found showing the first fixed abodes, which can be translated as the beginning of city formation. A growing civilization resulted in the formation of cities and cities have become the stages for civilization, that is to say, the circulation between the urban growth caused by civilization and the blossoming of civilization through cities has continued throughout history. The fact that the word 'Civilization' is derived from the Latin word 'Civilitas', meaning a city, clearly shows this relationship between cities and civilization.

The continuing gravitation of people toward cities after the industrial revolution increased the reliance of our civilization on cities and raised public interest in them. Radical tendencies of migration to cities have made residential and sanitary conditions worse and have caused borders to expand recklessly in industrial cities, which consequently draws public attention to new cities with the capacity to solve the social problems of industrial cities.

Modern urban theories for overcoming the congestion of cities can be divided into the 'self-sufficient distribution city theory' on how to decrease the concentration of the population and the 'high density structure city theory' on how to accommodate the influx of population. The former theory takes an existing city of low density, based on a self-sufficient economic system, as a model, the latter theory is a plan based on a presupposition that guarantees remaining space by building high density structures. These schemes tried to solve urban problems by either resisting or aggressively accepting changes, have created huge social sensations and have been actualized in various regions.

These theories were used as international criteria not only during that time but also post World War II when cities devastated by the War were being rebuilt and developing countries were in the process of modernization. In Korea, such theories were aggressively introduced to rebuild and modernize cities ruined by the Korean War, which consequently turned out to satisfy the quantifiable physical demand of society and to successfully serve as a support for national development. They have become the basis of today's urban structure.

However, modern urban theories understood...
cities as simple physical objects, and solved urban problems through standardization, functionalization and Manhattanization. So cities have become expressionless, gloomy and inhuman urban spaces that fail to deal with the complexities of life. In other words, today's urban problems; lack of vitality, hollowing out of the downtown, rapid increase of energy consumption, disorganization of communities, and environmental disruption have been generated by these approaches.

Now, various schemes suggested in our cities can be translated as alternative plans to solve the problems that have occurred in modern urban spaces. The problems of modern cities have been taking place since quality was ignored and replaced by an emphasis on quantitative and objective approaches to urban situations. So urban spaces, today, are being observed from various angles and are being colorfully created. This thesis aims to establish an urban theory which allows us to identify the values and possibilities concerning the latest attempts to handle the various meanings inherent in our cities. Specifically speaking, through the urban theorization of contextual operation theory, which contains great insight into the quality of life, the authors intend to theoretically support a change in the fundamental view of how a city should be handled.

1.2 The Contents and Method of the Study

This thesis suggests the 'Contextual Operation Theory', which is a philosophical idea as an urban theory and tries to verify it by applying it to cases of actual cities.

Firstly, the authors will investigate 'Contextualism', which is the originator of the contextual operation theory and the three steps of the contextual operation theory: 'Successful Working', 'Verified Hypothesis', and 'Qualitative Confirmation'. Secondly, they will find keywords classifying the three steps by comparing successful working, verified hypothesis, and qualitative confirmations, and then turn these into an urban theory based on Aldo Rossi’s 'Urban Artifact'. Finally, through the analysis of a real city (Busan) using the contextual operation theory, the authors will verify its value as an urban theory.

2. Consideration of the Contextual Operation Theory

2.1 Contextualism

In his book, 'World Hypotheses', Stephen Pepper classified the history of philosophy into four categories; formism, mechanism, organicism and contextualism. Unlike the other three worldviews that rely on ideal or fixed objects (form for formism, constituent for mechanism, the ultimate goal for organicism), contextualism considers 'Change' and 'Novelty' in our dynamic lives as unchangeable characteristics of the world. In other words, it states that because we are always in the middle of change, every moment is a new event and thus, a series of events consist life.³

In contextualism, it is said that every event, or life, is composed of 'Quality' and 'Texture'. Pepper explains quality and texture in a sentence:

"Now what is quality and texture in this event? Its quality is roughly its total meaning, its texture roughly the words and grammatical relations making it up. Generalizing, the quality of a given event is its intuited wholeness or total character; the texture is the details and relations which make up that character or quality."⁴

In other words, to apply this concept to music, each sound and the relationships among sounds are texture and the feeling created when the music is played is quality. In a biased view of rationality, the meanings of sentences, which are varied by readers and by context, are not fundamental characters of the event, but resolutions of emotion and of circumstance, and quality is bypassed. However, sentences without meaning cannot be called sentences but merely an arrangement of words, so quality must not be bypassed.⁵

Pepper also emphasizes that quality and texture can not be understood separately, that is, quality and 'texture' are like two sides of the same coin. Therefore, an event cannot exist alone as either quality or texture.⁶ This recognition shows the reason why scientific objectivism, which understood that the problems of life could be solved by dealing with only texture as a basis, like mechanism, has failed. Moreover, contextualism shows a process of problem solving with quality and texture through the contextual operation theory.

2.2 The Three Steps of the Contextual Operation Theory

We live every day relying on the truths that we believe, but when running into a problem, we doubt the preexisting truth and try to find an alternative plan. If this problem is solved by that plan, we redefine the new truth based on it. For example, through repetition, we build a fixed idea for our own route to work places. However, if the route is blocked by obstacles or inconveniences such as a traffic accident, a change of office hours or the transportation system, or if we are suddenly struck down with illness, we cannot trust the idea any more and must try to find new routes that deviate from our regular preexisting routes, with new transportation, toilets, as well as many other changes. If we successfully get to work with the new solution to our problem, we redefine the idea of our own way to work. In the contextual operation theory, it is suggested that the way to solve a problem is through the contextual upright method, or the insight of quality and texture.

The contextual operation theory departmentalizes the 'Problem Solving Process' into 'Blocking – Analysis – Hypothesis – Operation - Satisfaction'. In this basic structure, the contextual operation theory is classified into three steps according to the way in which to solve a problem: successful working, verified hypothesis, qualitative confirmation.
2.2.1 Successful Working

Pepper explains the successful working theory in an illustration of a rat in a maze searching for a way out:

"When a rat in a maze tries a number of blind alleys, and is unsuccessful in reaching its goal, its actions are errors, but when it is successful in reaching its goal, it finds the true path. The successful action is the true one, the unsuccessful actions are false.""9

Successful working is focused on satisfaction in the problem solving process, or a successful act. So questions like "Which hypothesis is it based on?" or "How does it operate?" are not important. Accordingly, the truth can be considered as utility or successful functioning, and that is the essence of this theory. From this point of view, James said:

"We have to live today by the truth we can get today, but be ready to call it a falsehood tomorrow."9

What provides practicality and convenience so to speak, is the truth, so when the practicality or convenience disappears, the truth vanishes too. This cogitation causes the successful working theory to be criticized in that it is not a theory for judging what is truth or a lie, or right or wrong; it merely shows existing facts or success and failure.

2.2.2 Verified Hypothesis

The verified hypothesis theory is focused on the hypothesis, which makes it possible to solve a problem. A simple, successful act without an anticipatory hypothesis for example, the escape of a rat out of a maze after several random attempts is perceived to be extrinsic to a judgment of true or false.10 Pepper explains verified hypothesis in an illustration of a hunter who crosses a river. A hunter encounters a river on his way to a meadow to find deer. When his journey is blocked by the river, he analyzes the situation. After forming a possible hypothesis, one of riding on a log to the opposite side of the river, based on previous experience with water, he successfully crosses the river. On this occasion, the hunter verifies his hypothesis, and the hypothesis is received as the truth.

This way of solving a problem appears frequently in the sphere of science. A scientist forms a possible hypothesis, and when it is verified through various experiments, it becomes the truth. This verified hypothesis provides the power to predict and control nature. This process shows a way to solve a problem by verified hypothesis theory.

However, the theory at this stage considers that a hypothesis is just a logical structure that does not contain quality. Therefore, solving a problem is achieved by dealing with only the texture of an event with a hypothesis. In the end, the complex problems of life are reduced to simple problems with causal textures.

2.2.3 Qualitative Confirmation

Qualitative confirmation pays attention to the operation of a hypothesis through direct verification. It criticizes indirect verification because it loses quality in an event, due to the disintegration of perception.11 Pepper gives the example of a hunter again:

"Suppose the hunter, on looking over the situation, should make the explicit statement: "If I take up that pole, and step on that log, and push myself off from this bank, I can push myself over to the other bank." As a meaningful sentence this is already an articulated texture of references. These references are the beginnings of operations themselves, already qualitatively appearing in what we call images. These incipient references or images fill out and actualize themselves in the operations of picking up the pole and stepping on the log, balancing, and placing the pole firmly against the bank, and so on. These acts are the very acts of the perceptual verification of the hypothesis. The qualities the hunter is now experiencing are the very qualities of the event referred to as verifying the verbal statement. However, these qualities are also the very qualities of the verbal references thickened out by the environmental contributions of the river, air, the roughness of the pole, the rotation of the log, and so on."12

In other words, through perceptual or direct verification, we can reveal the quality of a verbal statement, or hypothesis, and the quality of the hypothesis becomes clear by the environmental contributions and then anticipates the quality of the ensuing event.

In this theory, dealing with textures other than the qualities of an event is an abandonment of insight of the qualities which are to be revealed as a result. So, it is possible to solve a problem correctly when treating the quality and texture all together.

3. The Urban Theorization of the Contextual Operation Theory

3.1. The Meaning of the Contextual Operation Theory: Qualitative Circle

The contextual operation theory explains three types of steps: successful working which perceives the satisfaction of problem solving itself as the truth, verified hypothesis which perceives the hypothesis making it possible to achieve the satisfaction as the truth, and qualitative confirmation which perceives a directly, or perceptually, verified hypothesis as truth. Therefore, in contrast with the successful working step focusing on 'Satisfaction', the verified hypothesis step focuses on 'Hypothesis', and differing from the verified hypothesis step, the qualitative confirmation step focuses on 'Operation' in the problem solving process. Pepper says:

"A true hypothesis, accordingly, does in its texture and quality give some insight into the texture and quality of the event it refers to for verification... The operation theory seems thus to culminate in the qualitative confirmation theory, which suggests that the body of hypotheses possessed by science and philosophy give us a considerable amount of insight
into the structure of nature. Where these hypotheses are directly verifiable we have insight not only into the texture, but also into the qualities of the events referred to. Where hypotheses are not directly verifiable we may be said to know something about the texture or relational structure of the events referred to.\textsuperscript{13}

So the contextual operation theory shows how to deal with quality and texture through relations of the three step theories and says that it is possible to solve a problem correctly by using the qualitative confirmation theory which deals with both quality and texture because the successful working theory cannot suggest a criterion of truth or falsehood and the verified hypothesis theory loses the quality of hypothesis, and the possibility of dealing with the quality of the following event, despite suggesting a hypothesis as a criterion.

The factors that make the qualitative confirmation theory meaningful are those that we can deal with both in terms of quality and texture through the direct, or perceptual, verification of a hypothesis. Here, we can find a clue that makes it possible to go beyond the modern urban space toward the city comprehending the quality of life. The clue is that in order to achieve a city with a stage of qualitative confirmation which passes over a step of the verified hypothesis, understanding a city as texture, the direct verification, or perceptual experience, should be operated in the process of problem solving.

Now, let us see the process through which quality and texture are understood in the qualitative confirmation theory. The problem solving process, blocking – analysis – hypothesis – operation – satisfaction, was mentioned in '2.2 The Three Steps of Contextual Operation Theory'. When we are blocked by a problem, we mistrust the facts which had been considered previously as the correct solutions to the problem. Through the problem solving process, we find an alternative plan. If the alternative plan solves the problem, we revise the facts based on the experience. So, the newly revised facts become the criterion for solving the problem and are trusted as the truth. However, when a new problem occurs, we mistrust the new facts and must find another new alternative plan. Namely, through the circulation: 'blocking – analysis – hypothesis – operation – satisfaction – redefining truth (1) – new blocking – analysis – hypothesis – operation – satisfaction – redefined truth (2) – another blocking – analysis…', the truth is changeable and becomes continuously new. In particular, the qualitative confirmation theory focuses on the process of operation in this circle and says that when a hypothesis is operated through direct verification, we can solve problems correctly.

Therefore, the contextual operation theory says that when the perceptual verification of a hypothesis circulates through the problem solving process, we can comprehend the texture and quality. The authors can confirm this clearly in the aforementioned depiction of the relation of the hunter's verbal statement and acts to cross a river. The incipient proposal, or hypothesis thickens out by perceiving the wind at the riverside and the waving river, and anticipates future perceptual experience in detail. Based on this, the rotation of a log that the hunter is riding on and the tension of the arms holding a pole make the statement thicker, and the proposal anticipates the hunter's following visceral progress, or perceptual verification toward the opposite side of the bank in more detail. The incipient hypothesis so to speak, anticipates perceptual experience, and the perceptual experience makes the hypothesis thicken. The revised hypothesis anticipates the perceptual experience in detail. In these give-and-take, or circulating relations, the texture and quality of an event are discerned. This circulation is similar to the 'Hermeneutic Circle'.\textsuperscript{14} The hermeneutic circle can be explained in an illustration of reading a book as follows. When we read a text, we do not simply accept the meaning of words by themselves, but grasp at their meaning based on conjecture of the whole text. When we encounter a word which cannot be understood based on this conjecture, we revise the conjecture about the whole text through the incomprehensible section. Then based on the revised conjecture, we continuously grasp at the meaning of words or sentences. Therefore, the process of reading a book is the continuous circulation between the anticipation of the whole and the experiences of parts, namely the hermeneutic circle. Consequently, the circular process of qualitative confirmation which solves a problem through the circulation between a hypothesis and perceptual experience is the hermeneutic circle. So when we deal with the texture and quality of a city, the circulation between a hypothesis and perceptual experience, or 'Qualitative Circle',\textsuperscript{15}, should be sustained.

So, what relation is there between this philosophical idea and a city? This paper will find the relation and apply the qualitative circle to a city through Aldo Rossi's thoughts about cities in the following chapter.

\subsection*{3.2 Urban thought based on the Contextual Operation Theory}

\subsubsection*{3.2.1 Aldo Rossi's Urban Artifact}

In "The Architecture of the City"\textsuperscript{16}, Aldo Rossi revealed the quality of life for cities to contain and suggested 'Urban Artifact'\textsuperscript{17} to overcome the modern urban understanding which had been reduced to simple functionalism. Since he explains that we have to deal with quality and texture together beyond the textural understanding which treats cities as physical things, this is a good example of urban view in terms of contextualism.\textsuperscript{18}

Rossi says there are two ways of observing cities: "First, the city seen as a gigantic man-made object, a work of engineering and architecture that is large and complex and growing over time; second, certain more limited but still crucial aspects of the city,
namely urban artifacts, which like the city itself are characterized by their own history and thus by their own form.\textsuperscript{19}

A city seen as a man-made object is a city which was created in order to produce a comfortable environment and artistic intention. A city seen as an urban artifact is a city which grows by itself over time and acquires awareness and memory.

The urban artifact has its own characteristics: permanence, individuality, and complexity. Rossi explains the urban artifact using various examples: "When one visits a monument of this type, for example the Palazzo della Ragione in Padua, one is always surprised by a series of questions intimately associated with it. In particular, one is struck by the multiplicity of functions that a building of this type can contain over time and how these functions are entirely independent of the form. At the same time, it is precisely the form that impresses us; we live it and experience it, and in turn it structures the city."\textsuperscript{20}

He confirms permanence in monuments, buildings, and residing areas, which have maintained their formal characteristics in spite of the changes in their functions or institutions. He also reveals the complexity of urban artifacts by showing their various meanings through many academic fields: geography, sociology, psychology and aesthetics. He then shows that they attain individuality from events and attribute to the urban or local characteristics. He explains where the individuality of urban artifacts comes from:

"Where does the individuality of such a building begin and on what does it depend? Clearly it depends more on its form than on its material, even if the latter plays a substantial role; but it also depends on being a complicated entity which has developed in both space and time. We realize, for example, that if the architectural construction we are examining had been built recently, it would not have the same value. In that case the architecture in itself would be subject to judgment, and we could discuss its style and its form; but it would not yet present us with that richness of its own history which is characteristic of an urban artifact."\textsuperscript{21}

Namely, an urban artifact contains a comprehension of material and form, as it were the textures of a city, and the meanings obtained from various events, so to speak, the quality of a city. Therefore, the urban artifact has the same view which the qualitative confirmation theory has. In this sense especially, the urban artifact reveals Rossi's contextual tendency well. He understands the urban artifact as an expression of locality obtained through collective events, which was the contextual view in which cities were formed by events through spatial flow and over time. Therefore, this thesis defines urban quality and texture as urban atmosphere and physical structure and applies the contextual operation theory to cities through the urban artifact.

3.2.2 Direct Experience of Urban Artifact

Defining the quality of urban artifacts as the mind of a city, Rossi quotes Levi-Strauss's definition of quality: "Space has values peculiar to itself, just as sounds and scents have their colors and feelings their weight. The search for correspondences of this sort is not a poet's game or act of mystification...These correspondences offer the scholar an entirely new terrain, and one which may still have rich yields."\textsuperscript{22}

Rossi says the aspect of art in urban artifacts is closely linked to their quality and this quality is specifically revealed through 'Direct Experience':

"If one takes any urban artifact – a building, a street, a district – and attempts to describe it, the same difficulties arise which we encountered earlier with respect to the Palazzo della Pagione in Padua. Some of these difficulties derive from the ambiguity of language, and in part these difficulties can be overcome, but there will always be a type of experience recognizable only to those who have walked through the particular building, street, or district."\textsuperscript{23}

Rossi's view, which indicates that an urban artifact has quality and that this quality can be confirmed only through direct experience is in accord with the contextual operation theory, which says that direct, or perceptual, verification is necessary for qualitative confirmation.

3.2.3 Qualitative Circle of Urban Artifacts

Rossi studied urban artifacts in various historical cities.\textsuperscript{24} Based on his experience regarding the cities, he tried to go beyond the modern urban understanding. However, when studying historical cities, there is always a risk: a chance to misunderstand a city as an archaeological museum. Since Rossi knew this risk well, he requested that although the study of urban history is very important, it should be treated as a part of the diverse aspects of a city. In other words, if we thought that the meaning of an urban artifact was acquired only through time or history, we would reach an error that we could not help and would be forced to wait until the meaning of events had accumulated in the city through time in order to solve our problems concerning a textural city.

From this point of view, we can confirm the importance of the qualitative circle, or the circulation between the hypothesis and the direct experience, in the contextual operation theory. Through not only circulating with events, or direct experiences, over a long time, textural or hypothetic cities can naturally restore their qualities, but we can also restore the quality of a city by solving the urban problems through the qualitative circle at that point in time. Namely, a revealing atmosphere created by many events occurring in the long term like Rossi's urban artifact is a qualitative circle with a long cycle and approaching urban problems with the circulation between a plan, or hypothesis and direct experience is a qualitative circle with a short cycle.
Therefore, in the following chapter, this paper will apply the contextual operation theory to a real city: Busan, South Korea, and will find the value and possibility of the latest attempts toward the quality of areas, by applying the qualitative circle.

4. Busan Understood by the Contextual Operation Theory

In this chapter, by studying several areas of Busan using the contextual operation theory, it can be confirmed how the texture and quality of life have been treated in these areas. Due to a limitation of space in this thesis and the goal to confirm the possibility of the contextual operation theory as an urban theory, the focus will be on areas which show the characteristics of the three steps of contextual operation well.

4.1 Successful Working Elements

The cities included in the successful working theory easily ignore hypotheses or processes and value only successful acts. This approach produces shortsighted solutions and creates more problems in the long term. However, it sometimes reveals local quality through direct responses from an area. These examples can be found in the areas which were formed impromptu, in rapid changes from social situations: initial dwelling areas, deprived hillside areas, recklessly developing areas.

(1) Deprived Areas on a Hillside

Deprived areas on a hillside filling a Busan mountainside are a good example of successful working. These deprived areas were settled as makeshift residences for refugees flooding into Busan, as a result of the Korean War. They had to respond to the problems of life immediately and therefore closely and naturally adhere to the local life. Constructed based on local topography and materials, the areas have their own environmental characteristics. According to the necessities of life, these areas have spatial structures that reflect the lives of local people. That is to say, that since these areas have formed through local people's perceptual reactions, the quality of events has accumulated intact.

However, in these areas, qualitative circles have not been formed because they do not have a hypothesis. Since urban textures are not formed properly, the areas cannot serve functionally as instruments for life and the local quality is congested without any spread or change. Successful working elements are transformed through periods and their form is unpremeditated.

Therefore, it seems to be impossible to find a regular type. Nevertheless we have to keep in mind that local quality can be found in areas such as this deprived hillside area.

(2) Recklessly Developed Areas

The areas where many different types of buildings such as shopping centers and lodging houses are jumbled close together without a hypothesis, or master plan are another example of successful working elements. These recklessly developed areas, for instance Songjung, were developed to attain the goal of profit seeking in each plot.

Since the precondition of these areas is the acquisition of commercial profit no matter how, each building is constructed in disregard of not only the environment but also the buildings right next to it. In other words, these areas are the result of shortsighted development, which cannot so much as consider the collective profit of local areas.

These areas are easily constructed where commercial demands arise while the infrastructure is insufficient, as it is in sightseeing areas on the outskirts of the city.

4.2 Verified Hypothesis Elements

A city included in the verified hypothesis theory deals with only the textures of the city through hypothesis and solves the complex problems of life by reducing them to causal relations. This type of city is built according to a plan calculated to anticipate problems, is perceived as a useful tool in our life and is held as an example of urban modernization. Such examples can be found in areas where successful cases are applied to solve urban problems: areas borrowing from previous urban structures or areas where urban theories are introduced.

(1) Apartment Complexes

Apartments complexes spreading over the entirety of South Korea have been built because they have been accepted as a successful hypothesis for creating profit and a comfortable residential environment. Specifically, the verified apartment plan became a precedent for solving the housing problem in a short period and has been accepted as a universal solution in Busan. As a result, expressionless apartment complexes can be found everywhere in Busan.
The apartment complexes built recently show a tendency to care for the quality of the dwellers' life. That is to say, the problems of life are being understood as the problems of quality and texture together. However, these areas reveal limitations when dealing with quality of life, as they still approach it texturally. They deal with the problems of life by relying only on a planner's master plan, or hypothesis, without a process or design which involves direct, or perceptual experiences.

(2) Jipjangsu Houses
In contrast to the traditional house building method in which dwellers themselves built their houses, Jipjangsu houses were constructed for sale in the relationship between a producer and a consumer after the 1960's. These Jipjangsu houses are characterized by a colorful gable roof and white concrete handrails.26

![Fig.4. Jipjangsu Houses in Gupyeong](image)

Jipjangsu houses were constructed collectively throughout metropolitan areas in South Korea including Busan, and have become established as a housing type of the common people. They were called 'France Houses' and their external characteristics and uniform space composition were accepted as a 'verified hypothesis' to be subsequently applied to most detached houses in Busan.

4.3 Qualitative Confirmation Elements
A city within the qualitative confirmation theory deals with the physical structures, or texture, and the meaning, or quality, of the city together by circulating plans and direct experiences to solve urban problems. Since a city dealing with texture alone becomes a gray city without atmosphere, revealing the atmosphere or quality of the city through direct experience is required. Examples of these can be found in recent attempts to create colorful urban spaces.

(1) Gwangbok Street
The recently completed Gwangbok Street Improvement Project is an example which applies the circle between the designer's plan and dwellers' experiences through progressive governance. Formerly, most design processes were inclined to apply a planner's plan, but Gwangbok Street tried a meaningful project to revive the area through governance among civilians, the government and scholars.

The trace of an old stream is spruced up by water facilities and the space is occupied flexibly in differing situations, such as the time of day or during special festivities, by removing the step between the footpath and roadway, and façades and signboards are controlled within minimum limits, so users can reflect their own experiences directly. The president of the project's promotional commission says:

"The ultimate goal of this street's landscape improvement is not to design the physical form of the street but to design the mind of dwellers and citizens to create and develop the street together as a host."

However, the inhabitant's participation was limited to being given options for certain proposed cases resulting in the consequence that their experience was not significantly reflected in the master plan. And since the project was limited to signboards, facades and road surfaces, it reveals the tendencies of the City Beautiful Movement rather than the local atmosphere, or quality. Therefore, beyond reflecting the dwellers' experiential decisions, the methodology of fine governance in which the qualitative circulation between dwellers' direct experiences and a planner's plan is possible, has to be studied continuously.

(2) Monnamgil Block
Monnamgil block is an area where existing habitation has been modified by experiences of life, or commercial transactions. The clothing stores aiming for profit have been penetrating through the habitation and the area is revealing a new atmosphere based on the existing habitation. This could be understood as a situation where the existing habitation serves as a hypothesis to anticipate the changed atmosphere and form of the street resulting from commercial transaction, and the commercial transaction manifesting the local atmosphere revises the hypothesis. Namely, the pillar beneath a stair landing that catches the attention of passersby anticipates a display pillar and two houses closely facing each other anticipate a connecting bridge.

![Fig.5. Gwangbok Street](image)

![Fig.6. Monnamgil Block](image)

However, if only the perceptual experiences of commercial transactions are amplified continuously, the changes of hypothesis, or abode will be intensified by them and the anticipation for experience through the habitation will be attenuated, which will lead this area to the situation where the block's atmosphere will be congested which is similar to the deprived areas on the hillside. Namely, because the qualitative circulation between a hypothesis and direct experiences depends on direct experiences, the quality and texture of existing habitation, or hypothesis, could be dissolved. Therefore, we have to deal with these areas with the realization that when one pivot of qualitative circulation, or hypothesis, continues to carry out its role, the qualitative circle will function well.
(3) Munhwa Alley

Munhwa alley is an area where part of a dwelling block was recreated as a new alley with a unique atmosphere by an architect. Since the architect who has been living in this area made a plan based on his direct experiences, he was able to make this alley capable of revealing the unique quality and texture of the area. So, while forming this alley by utilizing the existing dwelling structures, gates, gardens, and walls, he has built a new commercial space which accommodates the atmosphere of the existing residential area.

Fig.7. Munhwa Alley

The excessive intention of the planner in trying to reveal various experiential components allowed him to plan elements which were not based on perceptual experiences, or to form an arbitrary hypothesis. He tried to strengthen the local atmosphere by arranging things that symbolize experiences of the time; bells, wooden carp, and rusty ironware. However, these components are not based on the local perceptual experiences, so they remain at the level of simple adoption, or decoration.

5. Conclusion

This thesis tried to find a useful viewpoint from which to observe cities through the contextual operation theory. For this, the three steps of contextual operation theory were examined and, the possibilities of it functioning as an urban theory through comparison with Rossi's urban artifact, were found and then applied to the city of Busan.

The contextual operation theory suggests the circulation between a hypothesis and direct experience, or qualitative circle, as the key for dealing with quality and texture together. Therefore, the latest attempts and directions for recovering the quality of urban life, could be estimated. The qualitative circle may not be defined as one ideal shape. To reveal the urban quality, some approach it through governance, others through gradual development, and others through local architects.

In conclusion, the authors confirmed the meaning of the contextual operation theory by verifying the changing attitude toward cities and the direction to it. Of course, it is obvious that this theory should be improved continuously in the circle between this theory and direct verifications or applications.

Notes
2 Here, the authors abbreviate 'the operation theory of truth in contextualism to 'contextual operation theory'.
3 This is the reason why contextualism has possibilities as an urban theory. Since contextualism is directly based on dynamic life, it is possible for us to find a valuable view to look at cities that are the stages and the consequence of dynamic life.
5 "Qualities are most commonly in the focus of our attention but never (except for philosophic or aesthetic purposes) in the focus of analysis, and why, says the contextualist, the discrete mechanism is so plausible when he explains them away in terms of the elements of a texture. Those elements, details, features, components are there and constitute the texture, but the texture also has its intuited quality, which is not reducible to these things it is precisely the wholeness of these." Pepper, Ibid., 239.
6 "The two are not separable, though in different events one or the other may be the more prominent. We may now pay more attention to the total meaning, now to the words. The events in the two cases are different events, but in each case both the total character or the quality and the details making up the quality or the texture are present. There is no such thing as a textless quality or a qualityless texture." Pepper, Ibid., 238.
7 Simply speaking, blocked by a problem, we form a hypothesis by analyzing the situation. And through the operation of the hypothesis, the satisfaction is achieved. Pepper, Ibid., 268-269, 273.
8 Pepper, Ibid., 270.
9 Re-quotation, Pepper, Ibid., 271.
10 "The ‘successful working’ theory excludes hypotheses from truth, yet hypotheses are prominent textures in contextualism, and they are the very textures to which usage applies truth and falsity." Pepper, Ibid., 272.
11 The perception is made by interlocking of the strands of an object and subject. Pepper illustrates this through a table. "That is, previous to the interlocking of the strands of the continuous textures of table and organism there were no such colors or shapes (of the table) in existence… If I look away, that perceptual texture is disintegrated and its qualities, of course, disappear. If I look back, it is reintegrated and the qualities emerge once more. But the important point to note is that the qualities arise in the integration of the texture and belong neither to me alone nor to the table alone, but to the common texture. In seeing a table I am interacting with my environment and am so far out in it.” Pepper, Ibid., 265-266.
12 Pepper, Ibid., 276.
13 Pepper, Ibid., 277.
14 "Schleiermacher integrated individual forms of hermeneutic circle into the circle of comparison and anticipation, namely the circle between the inferential understanding through comparing parts and the foresighted pre-understanding which penetrates the whole. And he laid the cornerstone of philosophy of language." Kang, D. K. (1990) Hermeneutics and Social Philosophy's Problem: The Hermeneutic Circle's epistemological structure and ontological structure. SunMoon Bookshelf, 55.
15 The authors name the relation of hermeneutic circle between a hypothesis and direct experience ‘qualitative circle’ in this thesis.
17 "The Italian fatto urbano comes from the French fate urbaine. Neither the Italian nor the English translation "urban artifact" adequately renders the full meaning of the original, which implies not just a physical thing in the city, but all of its history, geography, structure, and connection with the general life of the city. This meaning is the one intended throughout this book." Ghirardo, D. and Ockman, J. (1988) The Architecture of the City. The MIT Press, 22, Editor's note.
18 Since the study about the relation between Rossi's thoughts and contextualism was already investigated, this paper focuses on the part of Rossi's urban thoughts directly related to 'contextual operation theory'. Beatriz Garcia Moreno studied the relation between Aldo Rossi's "The Architecture of the City" and Stephen C. Pepper's Contextualism in his thesis, Moreno, B. G. (1992) Contextualist Thought and Architecture. Georgia Institute of Technology.
20 Rossi, Ibid, 29.
22 Rossi, Ibid, 33.

References