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Chapter 6 The Network Turn in Fieldwork and Architectural Design: A local cultural center project and an online relief project during the COVID-19 crisis in the historical area of Colombo, Sri Lanka

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1. A Contact from Colombo in Corona Disaster

On 2nd September 2021, Mr. Z, an acquaintance of the Colombo historical area which is my research field, contacted me via an online communication application for the first time in a while. It started with the usual greetings, but when he started to talk about his recent lives, the description soon made the author realize that a food crisis had occurred and was getting worse in the historical area of Colombo. In this 4th lockdown throughout Sri Lanka, economic activities were stopped due to movement restrictions and it was quite difficult for workers in the area to find stable work. Therefore, there was no income and food could not be bought. During the first and second lockdowns and intermittent curfews in between, wealthy shop owners, who have their shops in the wholesale district, distributed foodstuffs to their neighbors by their own expenses. People who attend the mosque raised money and distributed money for living expenses to families who were living in the same mosque area. There was a support for living expenses from the government too. But at this time there was no support from the government. Since they also could not do their business due to the continued lockdowns and curfews, wholesaler owners also were unable to afford donations this time.

It was thought that there was not much time left, so the author decided to collaborate with Mr. Z on a project to support household food and children's learning for the households in the historical area of Colombo in which the household of Mr. Z was also

included. Mr. Z proposed to support neighboring 60 houses by distributing them foodstuffs. These 60 houses corresponded to the most important and basic unit for his and his household's survival. As described below, he and his household were able to maintain their lives during this crisis situation by receiving various types of support through the ties among these 60 households. The relationships between the households played a decisive role in maintaining their lives. This paper calls these ties between households that consisted of this particular household a "neighborhood network". It can be confirmed that the lives of individual households were deeply depending on the mutual support they received through the neighborhood network.

When providing support, Mr. Z said that if only some selected households are supported, the other households that did not receive support would blame him for not selecting them to receive the support. Mr. Z had such an experience when he was entrusted to distribute zakat from a Saudi person in Ramadan (Yamada (2013)). Mr. Z guided the person to all houses of his neighborhood network and the person distributed the money to the houses. At that time one house could not receive the distributed amount of money since Mr. Z could not reach any member of that house despite his efforts. The person in the household that did not receive the distribution was dissatisfied with Mr. Z, who managed the distribution of the money, and a serious argument ensued between the two. These incidents were sometimes observed to even lead to a breakdown of communication between their households.

There are regular and preferential distributions of survival goods and information between a

particular group of people and their households that make the neighborhood network. Distributions take place through regular mutual communication relationships between one household and another. A particular group of people and their households are composed mainly of people from several different kinship groups. Within the neighborhood network, a “neighboring relatives’ network” which is smaller than a neighborhood network and whose members are relatives can be found. In a “neighboring relatives’ network”, more survival-related goods and information are preferentially distributed. The distribution of goods and information through neighboring relatives’ and neighborhood networks acts to ensure the survival of households and their residents in a time of crisis, as observed in the cases in Section 3 below. Neighboring relatives’ networks and neighborhood networks can be considered as non-physical common support which offer grounds for survival of their members and their households. In the historical area of Colombo, a close relationship between the neighborhood networks and the expansion of concrete spaces is observed, and spatially, the densely populated alleys of dwellings, called “lanes”, are the places where neighborhood networks are formed (Yamada (2017)).

Each of the dwellers in a group of households themselves, linked by a constant mutual communication relationship, also have the recognition, or assumed to have the recognition, that they are mutually supportive and depend on each other for their lives. Based on this recognition, it is established as a value / norm among the members of the networks who are connected with regular mutual communication relationships that they themselves should contribute to the lives of others with whom they mutually depend on for their lives, and through this, to the neighboring relatives’ network and neighborhood network (for specific examples, see Yamada (2016)). Then there is the value / norm that if one receives a support from another member, he or she will take

the opportunity to return the support to the one who supported him or her, and the lending and borrowing of supports are accumulated in the history of relationships between members and their households through the stories relating to specific events (Yamada (2016)).

The distribution of support is an important aspect of his / her contribution to the lives of those who share their lives with him / her. The case of the distribution of zakat in Ramadan, in which Mr. Z was involved, shows that there is a value / norm that the distribution should be made equally to households or members of households within the scope of the applicable network, such as a neighboring relatives’ network, a neighborhood network, etc. Distribution is a meticulous act, and Mr. Z's case shows that to whom distribution was provided and to whom distribution was not provided can lead to the breakdown of the neighborhood network and the neighboring relatives’ network.

Each time a member makes a contribution to the lives of another member, who is sharing life with him/her, at an occasion a support is needed, the continuation of the life of the supported member and his/her household become possible. The supports which are mutually provided increase the mutual trust and dependence, which in turn increases the probability of the repetition of the next support. And as long as the support is repeated, each member and their household can continue their life. Neighboring relatives’ networks and neighborhood networks are an autopoiesis system in which the components (mutual support between concrete members) are generated through the actuations (implementation of support), and the mutual trust between concrete members are generated together with the actuations which act as positive feedback, so that the components generate the next components, which in turn generate the reparative actuations iteratively.

Mutual supports among members are sustained over the long term as mutual trust is reproduced

through the mutual supports among members, and are accumulated in members over their lives, and accumulated in households over generations. Mutual trust between people, which is the basis of neighboring relatives' networks and neighborhood networks, is called "Nambikkai" and is recognized as an important asset.

This suggests that when sustaining the life of a household, there are ways to support the household alone, but in the long run, supporting the neighborhood network or the neighboring relatives' network is more reliable. And the case of the distribution of zakat in Ramadan, in which Mr. Z was involved, shows that in supporting the neighborhood network or the neighboring relatives' network, it is essential to preserve the totality of the communication and the relationships of trust among households without destroying them. Mr. Z's proposal to support all 60 households was based on his concern not to damage the relationships among the households. When providing supports, it is natural that the implementer has his own intentions, and depending on the intentions of the implementer, the applicable scope can be a single household, a network of neighboring relatives, or a network of neighborhoods. However, it was assumed that the residents of the historical area of Colombo would expect a reasonable scale of support, since this support is coming from abroad.

If the support was not provided to all the households in the neighborhood network, but only to Mr. Z's own household or to his household's neighboring relatives' network, it would have raised suspicions among other members that Mr. Z was inducing benefits to his own household or his neighboring relatives' network, which might be considered as a violation of the value / norms which is making up the neighborhood network. Since this support was particularly important for survival, it was possible that the mutual trust between Mr. Z and some of the households which are forming the basis of the networks could be undermined. The possibility could not be ruled out that the choice of to which households food should

be distributed might even redefine who would be the households who support the life of Mr. Z for the rest of his life, or even for the generations of his children. The author has also been a temporary dweller in the lane where the dwellers, who form this neighborhood network, live and has engaged with the dwellers. It was also desirable to the author, who temporary becomes a member of the neighborhood network, to have the neighborhood network in the applicable scope of support.

As a reference for considering how to carry out the project, I also informed a student from Sri Lanka about the situation in the historical area of Colombo and asked her opinions. She said that she, too, had only communicated with her relatives and close acquaintances and had no idea that these things were happening in the historical area of Colombo. She also replied to my question on how to solve this matter that the popular idea is that if someone faces difficulties in his or her life, the local network in which he or she resides should support him or her through its self-help efforts, and that it would be difficult to accept the idea to support a person who belongs to a different living network. She also told her recognition that there was a recognition and actuality that if once such a supporting relationship was formed, the relationship is expected, by people who were supported, to continue with responsibility. Of course, she also pointed out the uniqueness of the historical area of Colombo, which is "generally" perceived by Sri Lankan citizens as a center of all kinds of underground activities and injustice, a place to be avoided and given little attention. She commented that if the project emphasizes that the target audience is Sri Lankans rather than residents of the Historic District of Colombo, and that if such recognition can be obtained, there is a possibility of receiving support from citizens of Sri Lanka.

Not only in the historical area of Colombo but in Sri Lanka, and in the rest of South Asia, the government partly plays a role of supporting the lives of people, but a more fundamental part is

played by the neighborhood networks. Along with the lockdown, economic activities, government offices, and schools were closed and with that, the circuit of social connections was also closed, and the neighborhood networks came to be responsible for the distribution of the goods and information related to the lives of their dwellers. Implementing the lockdowns essentially meant that the government was leaving lives of people in the hands of their respective neighborhood networks. In a conversation with Mr. Z, if what he told was correct, it was revealed that the intermittent lockdowns and curfews have led the weakest neighborhood networks and neighboring relatives' networks to reach their limits of their ability to support the lives of their dwellers in the historical area of Colombo.

The above things indicated that the crisis in historical area of Colombo is developing in a place that is difficult to be covered by the safety network of Sri Lankan society. The author himself is living in distant from Sri Lankan society, and it was felt that he had a role to play because of his position.

However, a personal support for the 60 houses in the neighborhood network only by the author was considered too large for him and unsustainable. Since it was impossible to say how serious the situation would become or how long it would continue, and the possibility that support would continue to be needed in the future had led the author to believe that it would be desirable to establish a neighborhood network in the author's vicinity that would provide support. Although a commission fee was required, the author decided to carry out the project via a crowdfunding with the aim of making the project known to as many people as possible and in the hopes of creating a place for support via online. The author had previously talked to an expert about crowdfunding in relation to another project, and had heard that the ability to raise the target amount of funds depended on the ability of the members

of the project and their acquaintances to get the necessary publicity or attention via online. Since the author rarely uses social networking services and has no online presence, the author decided to set a goal of half of the total amount needed for this first project, assuming that the amount of donations would be small, and to donate the remaining half by himself to make the project feasible to be carried out.

2. Crowdfunding Online Relief Project in the Historical Area of Colombo during the COVID-19 Crisis

In order to raise funds through crowdfunding, it was necessary to post a project plan on a dedicated website, so the author and Mr. Z hurriedly discussed on the online meeting application and shared a general situation of the historical area of Colombo and Sri Lanka. Then, Mr. Z hurriedly went around the wholesale shops street to confirm and record the kinds, sales units and prices of necessary foodstuffs, and collected various photographs as research materials showing the actual situation and sent them to the author. In the meantime, Mr. Z and the author continued to hold regular online meetings. And while checking the objective situation of Sri Lanka with the student from Sri Lanka in the author's laboratory, the author summarized Mr. Z's research materials and discussions during this time and completed the project proposal showing the problems faced by the neighborhood network in the historical area of Colombo and their solutions. It took about two weeks from the decision to implement the project to the completion of the proposal. After that, it took about another two weeks for the website operator's review. Approximately one month after the decision to implement the project, the following article was posted on the website.



Figure 1 My Two Children and I

We are Searching for Supporters of Self-learning Children and Our Lives Under the Locked-down City Colombo

Introduction of Myself and the Historical Area of Colombo

My name is Z. I was born in this Historical Area of Colombo and has been living here for 50 years.

I have a family of 4. I am living with my two children and wife. I am working as a Nattami (a worker specialized in transporting heavy goods). Daily earning from my transportation work is the main income of my family (Fig.1).

Our area has been developed as a center of wholesale shops and hard-workers which supports distribution over the country and the Indian Ocean. Many "Lanes", the alleys with tenements or the alleys on squatted lands flanked by small houses, have been shaped as hard-workers' dwellings, forming high dense area. With the removal of the planned economy and the end of the civil war, job options, other than hard-workers, appeared. Even though, our lives are still not easy.

Our area has been used as film shooting sights because of its exceptional landscape (Fig.2). Scene settings assigned are always miserable, namely the slum of Calcutta where Mother Teresa was living, or Dhakka, the capital city of Bangladesh, devastated after the independence war. Few people care about us. Though our earnings and lives are unstable and sometimes we almost lost our ways, we are searching how we should live.

Daily Lives under the 4th Lockdown

The Streets are quiet since most of the shops are closed (Fig.3). Income is quite limited since the opportunities for work disappeared. Cart-based Food Sellers come everyday but cannot obtain any



Figure 2 Landscape of Our Area in September 2021



Figure 3 Wholesale Market Before and After the Lockdown

item without money.

Dwellers have been helping each other to support their lives.

The 1st lockdown began on 2020.03.20. It lasted

until the end of June. Two or three weeks after the lift of the lockdown, another curfew was imposed and after the lift of the curfew other curfews were continuously imposed until the beginning



Figure 4 Sharing of Surplus Meals with Relatives

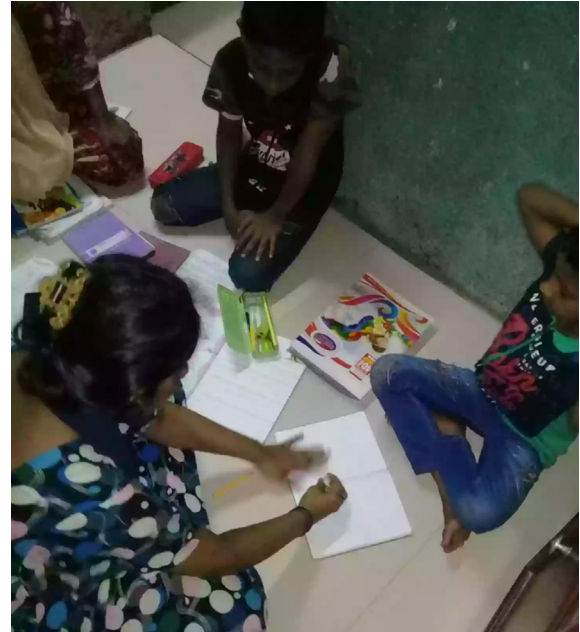


Figure 5 Children Started Self Learning by Themselves

of the 2nd lockdown (2020.10-11). During this 8 months with continuous lockdowns and curfews (2020.03-11), shop owners made donation and distributed food bags to dwellers. People gathering at local mosques raised money and distributed to us. There were also some supports from the government for living expense. At the time of the 3rd lockdown (2021.05-06), people who could still afford distributed food bags to dwellers by their expense. But the support considerably decreased. And at this 4th lockdown (2021.08-), everyone is exhausted and no longer strong enough to support dwellers.

The Way our family and neighbouring Families Stay Alive

Only several days in one week, I find some small work which is not even sufficient for family's one day eating. Since everyone is in similar condition and can imagine my family's situation, occasionally some friends give some money without saying. Sometimes I receive foodstuffs from other friends. Relatives share their balance food of the day with each other (Fig.4).

By combining these supports, we are keeping our lives. Lives of Families around here are Like This. Everyone is living in the same condition.

Children and Us Continue Learning Voluntarily for Our Future

Present lockdown condition is similar to the curfew during the civil war 12 years ago. But harder since when it will be lifted is unclear and it will be repeatedly ordered.

In spite of this difficult situation, children voluntarily started to teach each other and are keep learning. For this one and a half years, after March 2020, our school has been physically shutdown. Neighboring children gather in the house in the lane and are connecting to internet online classes run by volunteer teachers (Fig.5).

We are Living in One Connected World



Figure 6 Meal with Shared Gravy and Side Dishes

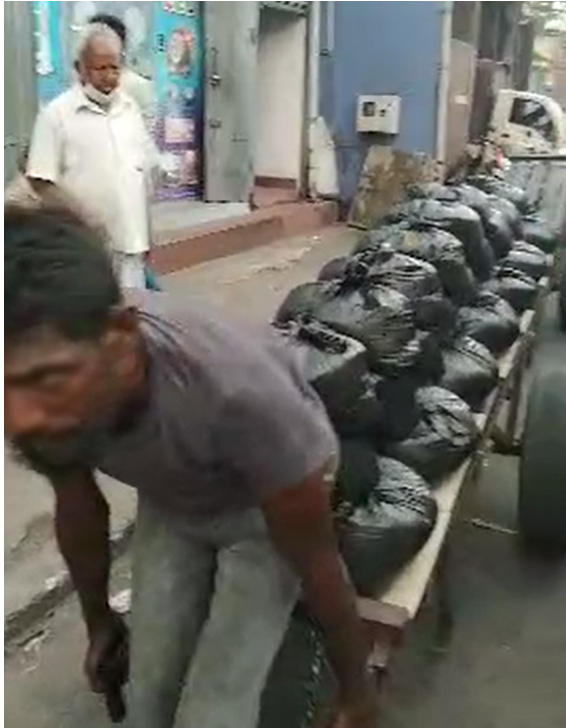


Figure 8 Foodstuffs Being Carted by Mr. Z

The author received supports from acquaintances and also from people who he did not know directly, and unexpectedly he was able to receive a full donation of the target amount and implemented the project (Fig.8, 9). Now belatedly he is preparing a "disaster cooking recipe that one can make in the

event of a disaster" as a reward for the support.

3. Looking Back on Crowdfunding Projects

After carrying out the relief project in response to the COVID-19 crisis, the author noticed the following three points that need to be considered if the author ever carries out a project in the future.

The first is the time required from the decision to implementation. When crowdfunding is used, it is necessary to consider the difference between the grace period before responding to the situation and the period required to carry out the project by crowdfunding. Because it was a relief project for a crisis that required urgency, the period of solicitation was set as a short period of one month, but it was about two months after the author decided to implement the project. The food situation still remained difficult at that time, and food distributions were implemented when effective. But the lockdown had been lifted when the project was feasible, and the most severe time had passed.

Second, the project would need to incorporate



Figure 9 Foodstuffs Distributed to Dwellers

different elements, such as the policy of the website, other than originally conceived concerns when obtaining outside funding. In particular, since the project was carried out in connections with Sri Lanka and Japan, it was necessary to propose an understanding and ethical response for both parties when preparing the proposal. For example, in the historical area of Colombo, as mentioned above, the unit of support for the crisis on lives of dwellers was considered to be the neighborhood network. On the other hand, the crowdfunding site was explicitly and implicitly based on the assumption that people with equal levels of economic need would be able to obtain equal support. Here, the modern vision of society, that is, an atomistic society in which there is no connection between people, was assumed, and ethics of such a society are premised. On the other hand, in the system of the historical area of Colombo, where each dweller contributes to the survival of his/her own neighborhood network, and each neighborhood network guarantees the lives of its dwellers in situations where food is not sufficient for everyone, distributing food to people in different neighborhood networks without distributing food to dwellers in his/her neighborhood network poses a challenge to the system and ethics of the local society. Since the route, through which support is delivered, was developed by the people belonging to each neighboring network through self-help efforts and the recipients are the first people belonging to the neighboring network.

Therefore, as a method of implementing the project, it was written on the website that the households to whom the food might be distributed were distributed with an online survey to check whether they needed food. The project was carried out in the form of food distribution in the two lanes which constituted the neighboring network, connecting with Mr. Z online. Food was distributed while confirming that there is a similar need, which is suitable for crowdfunding requirements, and it

is a response to the requirements of the historical area of Colombo where food was distributed in the unit of neighboring network. It can be expected that some distribution will be given to people belonging to other neighboring networks from acquaintances belonging to the supported neighboring network, and as a result, some effect on the stability of a wider area will be expected. This response, which is far from the possible solution in civil society that everyone in need receives equal support, will be evaluated in various ways depending on one's position. Besides, this is a good point, but while considering the description on the crowdfunding website, additional researches on the current situation were repeatedly carried out and this led to a reconsideration of the project, which was originally intended to simply distribute foodstuffs, as a project with children's learning as a central issue.

The third is about continuity. In order to carry out the project continuously, it is desirable that the project is completed by receiving occasional donations from supporters who are not too much burdened by the donations. This time, the project received support from people who had no direct acquaintance, but the majority of the support the project received came directly from acquaintances to whom the author sent information. It is not possible to ask acquaintances for support every time, but it is necessary to have a way to reach people who have no direct acquaintances and obtain understanding and support. In addition, the project was carried out as an emergency relief project. Whether or not to continue these kinds of projects which mix dwellers' daily life and researcher's daily life at normal time, needs to be examined. The conclusion must depend on the attitude of the parties involved on how the relationship between each other should be. On the other hand, there is simply a physical problem, since the projects will be carried out while Mr. Z and the author are working as usual.

4. Evaluation of the Neighborhood Network Which Worked as the Basis of Survival under the COVID-19 Crisis

In parallel with the creation of the website for the crowdfunding project, the author conducted fieldwork with Mr. Z using an online meeting application to assess the role of the neighborhood network and the neighboring relatives' network in supporting the lives in times of a crisis. Through the online meeting application, the author and Mr. Z, for about a month, recorded the details of when, where, how much, from whom, and to whom his household obtained or sent foodstuff, cash, and work which were essential for survival.

Spatially, the neighborhood network corresponds to the local dwelt environment discussed in Yamada (2017)(Fig. 10,11). In the following, referring to the five places and their network that

consist the dwelt environment of historical area of Colombo identified in Yamada (2017) - the lanes, the wholesale markets, the mosques, the tea stores, and the lodges - the paper will discuss through which of the five places the foodstuff, cash, and work of the household of Mr. Z flowed in or out of. And the paper will also discuss which networks of places supported to what extent the survival of the household of Mr. Z under crisis conditions. However, since overseas travels were prohibited during the lockdown, the lodges, which were the places relating to the flow of things from/to overseas, were closed, leaving only four places that constituted the dwelt environment.

Foodstuff:

Mr. Z's household is one of the least economically well-off households in the neighborhood network. They received the leftovers of the previous day's meal from their relatives in the Lane, either consecutively during the period or once every few days. Food is the most important factor



Figure 10 Distribution of Places of Different Types in the Constitute Historical Area of Colombo

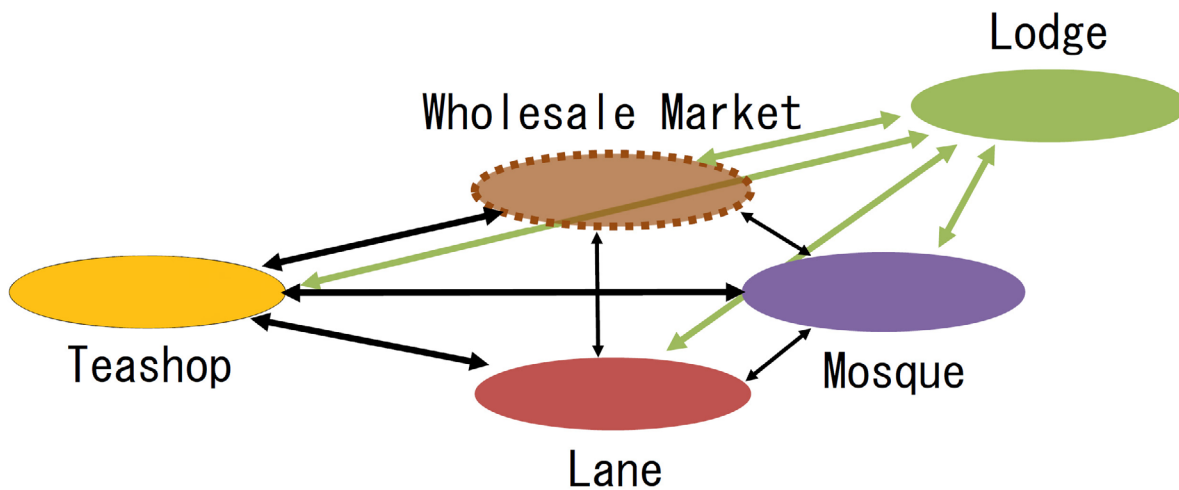


Figure 11 Five Places and Their Network Which Constitute Local Dwelt Environment

contributing to survival in a crisis situation like this one time. It turns out that the lane with relatives is the main place to receive foodstuffs (Fig. 12). In addition, food bags were sometimes distributed from the shop owners in the wholesale markets where the relatives of the Lane work. At the junction where the tea shop is located, Mr. Z sometimes received foodstuff when he met an acquaintance. Although the distribution of foodstuff from Mr. Z's household to other households was limited, but they sometimes kept further leftovers of meals received from relatives and offered them to another relative, an uncle who occasionally came from outside the neighborhood network.

Cash:

Mr. Z often received cash when he met an acquaintance at a junction with a teashop(Fig. 13). Also, he sometimes received cash when he met an acquaintance on the street of a wholesale market. Mr. Z said that acquaintances would give him money based on their understanding of his situation, and that he never asked for it himself. On the other hand, Mr. Z mentioned that he did not need to go to the junction on days when he had work, indicating that the junctions, where the teashops are located, were the main places where he could expect to receive money and that he went there with the intention of getting support when he needed it. Although it was not observed during this period, cash may be distributed to households in neighborhood network by a shop

owner, who goes to the mosque in neighborhood and who worships together there. In normal times, it was observed that the money was borrowed in advance from the boss of a shop in the wholesale market where Mr. Z was mainly working and having a Nambikkai relationship, which will be described later, with his boss. But this route of obtaining cash was not observed during lockdown when there was no work itself. Given the observed continuous increase in goods prices and the irregular availability of cash in this case, the role of cash for obtaining foodstuff was supplementary and not comparable to that of foodstuff itself. However it is the most versatile resource that can be used not only for foodstuff but also for daily necessities such as soap, toothpaste and etc. Not only that, cash is necessary and essential for fees for communications, water supply service, and electricity supply service which are critical in the life in the city.

Work:

The work was obtained through three different paths. The first path is from his boss of the shop in the wholesale market with whom Mr. Z was having a Nambikkai relationship(Fig. 14). Nambikkai is a Tamil word that means a relationship of mutual trust and dependence between two parties. Under normal circumstances, it can be expected to receive requests for loading and unloading work and delivery work on a regular basis through the boss with whom

Places Relate to
Flow of Support by
Foodstuff

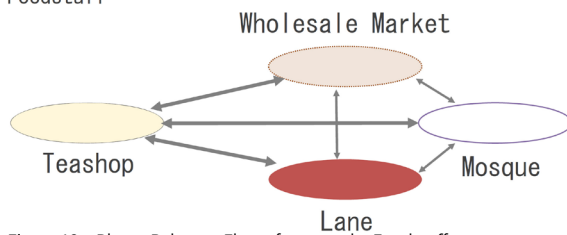


Figure 12 Places Relate to Flow of support by Foodstuff

Places Relate to
Flow of Support by
Cash

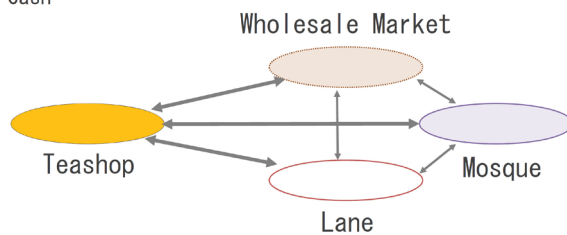


Figure 13 Places Relate to Flow of support by Cash

Places Relate to
Flow of Support by
Work

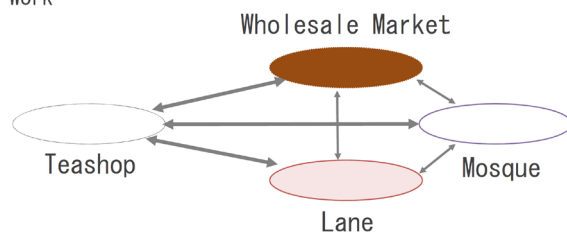


Figure 14 Places Relate to Flow of support by Work

a Nambikkai relationship is constructed. This path will usually provide a minimum stable life to the worker and his household. Regular work contributes most to the sustainability of life of the dweller and his household, and at the same time it enables the dweller and his household to have certain ability to control their lives along with their will. Therefore, the Nambikkai relationship is valued. However, under the lockdown situation, the work of loading and unloading was limited, and it was impossible to earn enough income from the work from the boss with whom a Nambikkai relationship was constructed. Therefore, the second and third paths, which allow workers to get jobs on an irregular basis, were actively used. The second path is the introduction of acquaintances. Among the loading and unloading workers “Nattamis”, the one who has a Nambikkai

relationship with his boss is called the “Head Nattami” and he is entrusted with the distribution of the loading and unloading work. Sometimes a Head Nattami who lived in the same lane as Mr. Z or who were an old acquaintance of Mr. Z in the wholesale market would introduce him to the work. On the other hand, sometimes Mr. Z also introduced the work of the shop where he is the Head Nattami to acquaintances in his Lane. However this second path is irregular and unstable, and Mr. Z has no control over the situation. The third path was when Mr. Z would go to a store in the wholesale market where he had worked before and get a temporary job from the boss. As mentioned above, the Head Nattami is in charge of the work, but if Head Nattami is absent from the store and there is an urgent need for work, he may be able to get some credibility by having worked there before and be able to connect to the work. This is a way to look for work in the wholesale market when there is no work at all.

Each of the three different places is serving as a path for the influx of different resources that support survival: foodstuff, cash, and work. And by being organized as a combination of these places, the local dwelt environment, or neighborhood network, played a critical role during an emergency. It can be seen that the local dwelt environment consists of a combination of places where foodstuff, cash, and work can be obtained in an emergency. All resources come through relationships of mutual trust that have been built up to that point in time. Based on the awareness that relationship of mutual trust is an asset and that it is a fundamental element that forms the basis of his survival, when Mr. Z introduces a job to someone, he paid attention to how to preserve the relationship of trust between him and his boss and neighbors and avoid damaging them.

Work can be found to be the only pathway that provides a steady opportunity to obtain resources for survival from non-relatives. If one can build a relationship of mutual trust with his boss, work

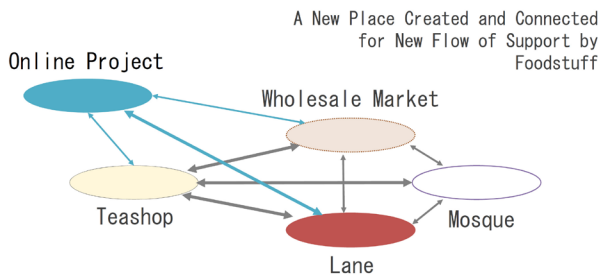


Figure 15 A New Place Created and Connected for New Flow of Support by Foodstuff

will lead to the acquisition of money, including advance borrowings, and the provision of food, and it will be a relationship that brings about the possibility of responding to various situations in survival.

It was confirmed that building a relationship of mutual trust with his boss required a guarantor and a referral to ensure that the person deserved his trust. As a guarantor for Mr. Z's personality, the author sometimes talked to his boss in maintaining the relationship of mutual trust between Mr. Z and his boss.

While mutually trusting relationships are important, there are also opinions that even if you work so much every day to build the relationship, you will only get 5 kg of rice in an emergency like this.

Why Mr. Z had contacted the author through the online meeting application was because he could no longer support his life in the local dwelt environment, and out of necessity, he was forced to open up a new path and a new place (Fig. 15). This food distribution to the entire houses of the neighborhood network will be recorded in the history of mutual trust between each of its residents and Mr. Z. It will also be an asset for Mr. Z and his household to expect future assistance.

5. The Network Turn in Fieldwork: Shifting the Way the World is Described from Space to Network

The COVID-19 epidemic has prevented people

from moving through physical space to visit actual fields, but on the other hand, it has created a situation where everyone uses online meeting media and other social media to communicate with each other regardless of spatial separation.

Through online meeting tools, it is difficult to make research on the physical space of a concrete place. On the other hand, a spatial view of the world has the limitation that it is difficult to capture the connections, or networks, between different points of separation.

While it has been usual to set space as an object and its scope for a field, it is also possible to set a group of networks as an object and its scope for a field.

If the object of the field and its scope are the network, an online meeting media that can connect regardless of spatial separations can be a useful media, which allows the researchers to confirm the connections between people and their activities extended across spatial separations with the conversations and images it provides, for conducting fieldwork. By considering the network as the object of fieldwork, it is clear that the network is not limited to the research site, which has usually been called the field, but is seamlessly connected from the research site to the researcher's place of residence. The network between the research site and the researcher's place of residence, and even the network that the researcher has in his/her place of residence, emerge as a new research subject.

Furthermore, the network-tracing perspective demands the researchers to treat both intangible and online virtual entities and physical objects as equal constitutive elements of the chains of the network, and it offers them a new view of the world. Taking advantage of the online meeting media, which has drawbacks in dealing with space but is well suited for dealing with networks, and actively exploring ways to take advantage of these media, has the potential to make a shift on researchers' sense and their way of seeing and

interacting with the world to the one based on networks.

The quest for direct connections and networks between individuals represented by the internet and the quest for communication therein have been other motivations for the development of digital technology, along with the quest for support for life of each individual through the creation of the laptop computer. One consequence of the world's digital turn will be the world's network turn.

By the way, a world based on networks has always existed and still exists today. The South Asia and Indian Ocean World, including Colombo, is a representative example of a world that has been established on the basis of networks. In the South Asia and Indian Ocean World, a network-based way of life has played an important role that does not necessarily coincide with the modernization of the 20th century, which promoted the formation of a world based on space. The author believes that the perspective from the local society, where these characteristics are particularly prominent, can contribute to relativize the modern world and provide a clue to get a prospect on the future of our lives and the world.

Reflecting on the findings of the online fieldwork in Colombo, it can be said that in the dwelt environment of the historical area of Colombo, as seen in the distribution of foodstuff, cash and work in the lane, the Nambikkai, or mutual trusting and depending relationship between two parties, is a key element of the local dwelt environment, which consists of a set of different types of places and their network, and at the same time, it is a fundamental principle that supports each dweller's life. Mutual trusting and depending relationships create roles for each party such as loading, unloading, and delivery, as well as requests for these work (See also Yamada (2021), which analyzed the network of trading activities in a wholesale market as an autopoiesis system.).

The system of local societies based on mutual

trust and dependence on relationships between two parties and the roles created from these relationships to be played by them are similar to the Jajmani system observed in rural India in the first half of the 20th century. This system can be considered to have developed from the local system called Rājākariya (Sri Lanka), Kāṇi/ Mirāsi (South India), and Vatan (North India) which are further back in time.

Though names for each region are different, these are the systems sharing a common principle of individual survival and at the same time social formation that pervades pre-modern South Asia (Mizushima T. (2008), Kotani H. (2010)), namely that individuals can have a place and exist in the system of local society by obtaining a role in it. Land, resources, and income are granted in conjunction with having a role. As long as the role is fulfilled, the individual can continue to live there and the local society is maintained.

In the historical area of Colombo, people sometimes say that they are Nambikkai, and that their relationship with another one is more important than money or land. Because roles are created out of mutual trust and dependence on relationships, as it has been already seen, this relationship is recognized as the most fundamental asset that sustains the lives of those who live in the local dwelt environment and the local society. At the same time, not a single relationship of mutual trust and dependence, but the combined network of these relationships acts as the non-physical common support which offers grounds for people's lives.

6. The Network Turn in Architecture

Throughout the 20th century, architecture, which was involved in the formation of the world through its physical composition, had taken space as its fundamental concept and explored its expression and experience. What will architecture look like

when the world's digital turn and network turn transforms the object of the search into a network? It should be something that has not been imagined so far. In the following, the author will continue the discussion based on the findings and practices of fieldwork in the historical area of Colombo. Based on the findings obtained from fieldwork, the author has been collaborating with local dwellers on a project to open a local learning center for children in the historical area of Colombo since 2011. Mr. Z was the main local person involved in the project.

The system of the local society in the historical area of Colombo, based on the basic principle of mutual trusting and interdepending relationship between the two parties and the role that arises from them, differs from the principle of survival of individuals and societies on which land ownership is the basis of private property, which was popularized during the British colonial period after the end of the 18th century and became the mainstream worldwide today. It differs in the point in which the maintenance of the right is guaranteed by the law of the nation regardless of mutual trust and the role. The historical area of Colombo is called an informal settlement because it has the widest and most densely developed historical principles of the area, which are different from the mainstream of the modern world. Due to the limited application of the law of the state that has jurisdiction over the public territory, the range of discretion for each individual and living environment is wide, and it can be said to be the ultimate world of autonomy. The solution of things is explored based on values / norms, relationships with mutual trust, and roles, regardless of stable statutory law. Perspectives from different values and norms based on each role are presented and tested through the discussions, and the framework for problem setting changes dynamically, and the solutions found along with it change rapidly. Solving things require mediation between different perspectives and the solutions presented from them, and there are frequent and

widespread situations in which creativity must be demonstrated.

Architecture is also formed through this process (see Yamada, 2016 for details). This is because in a community based on mutual trust and dependence on relationships and the roles that arise from them, there are multiple parties who have different rights to one land or a thing according to their respective roles. Therefore, it has the potential to create a different architecture from the modern architecture that is born from the design process in which owners and designers make arbitrary decisions within the scope of land ownership and within the scope of stable statutory law. In the construction of local learning center for children, the existing structure of the non-physical connection of mutual trust and dependence on relationships between people, which is the principle of individual survival and the constitutive principle of the dwelt environment, are diverted and converted into a physical way of support by connecting new beams and columns to the existing structure to transfer and support the loads each other as a whole, thereby reducing materials and costs and creating the necessary space. This construction method makes it possible to avoid unnecessary use of resources and reduce the amount of money and effort required for construction. When the family members increase or marry, the construction or extension of the house becomes necessary. In this area, constructing or extending a house is the biggest challenge for each household, which has to be attempted in one generation or several generations. Reducing the amount of money and effort required for construction and extension directly leads to a reduction in the degree of difficulty faced by the households.

Specifically, the upper floor of the one-story house where Mr. Z lives was chosen as the proposed site for the local learning center. By borrowing the RC structures of the existing buildings from the owners and residents of the buildings on both

the sides of Mr. Z's house and constructing a new group of RC beams between the two structures, the small-scale independent structures were converted into one large structure, and the RC floor was placed on the new beam to make it an activity surface of the local learning center, and the design was made to support this with the newly born large structure (Fig.16). The strength of the structures of the buildings on both sides, to afford the new construction load, was researched and confirmed in light of the basic manner of construction of RC structures in Colombo, and at the same time it was also confirmed that the proposed construction method did not deviate from the building law. Preparations were made with permission from the owners and residents of the buildings on both the sides to borrow the structures and to connect the beams there. The residents on both the sides are relatives of Mr. Z's wife, and it can be said that there is a supportive relationship with mutual trust. In addition, one of the residents' buildings was rebuilt from brick to RC, and at the time of rebuilding, a part of the wall adjacent to Mr. Z's house was removed and used as a formwork, and the RC column was made there. The construction was realized by installing the pillars. It means that the existing structure was also realized through a relationship of trust and support, and the lending and borrowing relationship of supports were embedded in the materials realized with the memory.

The focus of the design was on the standards of the new beams and the connection rules between the new beams and the existing structures as networks of columns and beams. Inadequate strength of new beams and joining methods, or inadequate strength of the structure created by joining new beams, does not only mean that despite the money and effort expended necessary floors cannot be acquired, but that it may even irreparably damage the existing structure, which is the base for the lives of the current household members. The decisions were made carefully in

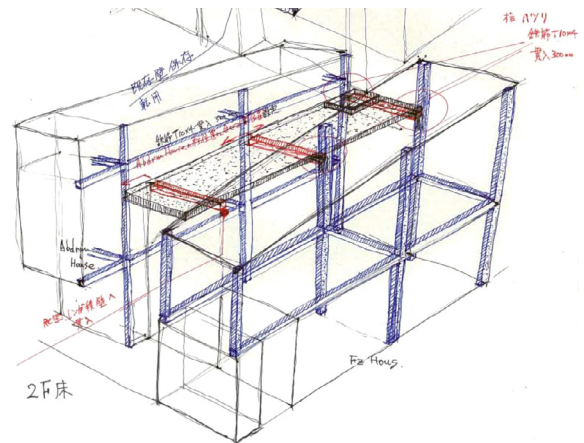


Figure 16 Initial Design for Local Learning Center: Putting a Floor on New Beams which Connect Existing Structures

consultation with a structural designer and with reference to the standards and joining rules of the existing structure's columns and beams, as well as the relevant construction regulations. It was a solution unique to the historical area of Colombo, which obtains maximum space with minimal intervention.

By the way, when it was finally time to start the construction, and when it was reconfirmed with the owners and the residents of the buildings on both the sides, the owner of the building which was rebuilt with the support of Mr. Z and his wife, was concerned about the strength of his structure, and withdrew his permission to connect the beams. It can be said that the role of protecting the place of survival of the household as the head of the householder was expressed rather than the role of supporting each other as relatives.

Since the structure for the connecting disappeared and one end of the new proposed beams lost their support, a set of new supports for them were conceived and discussed at the site by the parties involved, with the help of the member standards and connecting methods that had been studied. Each beam end that is no longer supported was proposed to be supported by a new column. Columns can be extended downwards to the allowable length. From the top of the new column, a new beam is extended towards another adjacent new column to connect the columns together. The columns are arranged at intervals

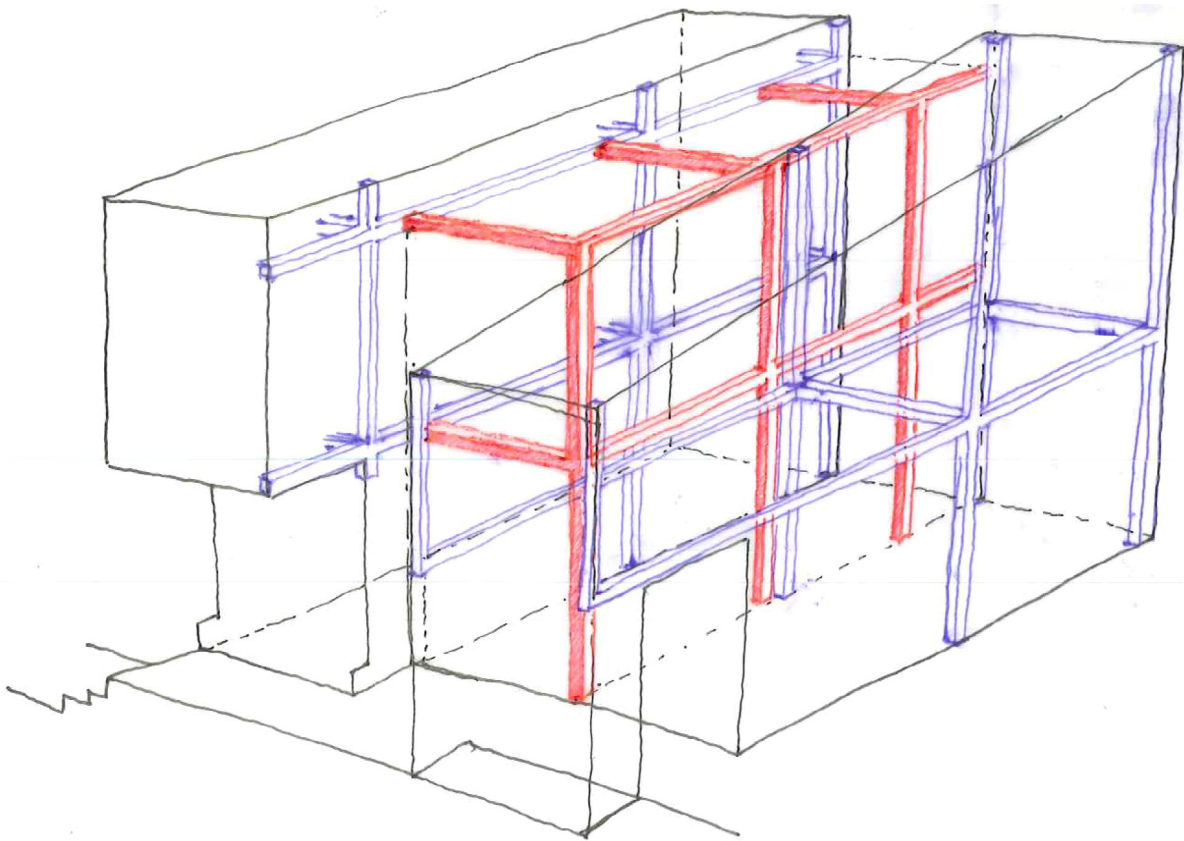


Figure 17 A New Structure Emerged Through a Self-Organizing Process in which Structural Units were Generated Recursively:
Non-self-standing Architecture with Cantilevered Structure

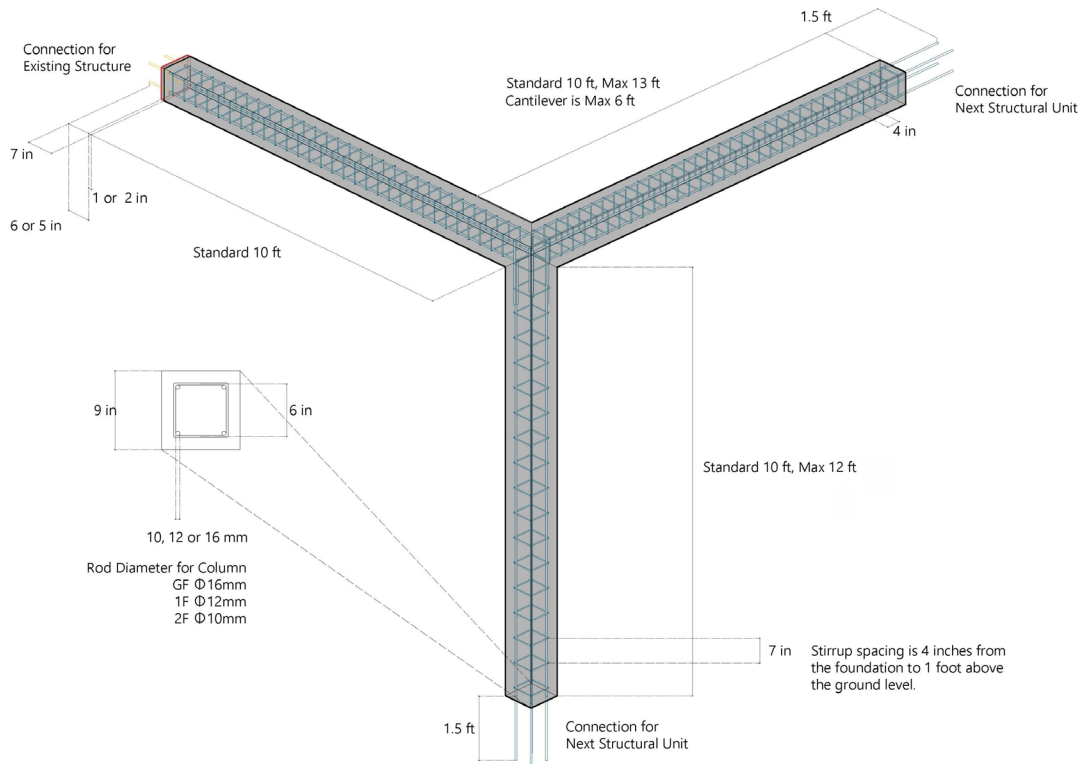


Figure 18 A Structural Unit, Its Standards and Connecting Rules



Figure 19 Self-build Construction of Structural Units, September 2017



Figure 20 The New Structure Stands with Support from the Existing Structure: The Nucleus of the Physical Common Support

equal to or less than the allowable length of the beam to form a column row. To prevent buckling, at the lower end of the column, the beam extends in a direction perpendicular to the column so that it connects to the existing structure and adjacent new columns, and the beam is supported by a new column.

In other words, as a structural unit (Fig. 18) in which three basic units that serve as columns and beams were assembled into a shape that combines pseudo-orthogonal triaxes consisting of two cantilevered beams and one pillar supporting them. The procedure of connecting them by adding a new structural unit to the lower and deep directions was repeated based on a new beam that carries the RC floor, which is the active surface of the local learning center. The process was completed when it was repeated until it was grounded downward, and in the depth, direction it was repeated from one end of the site to the other. The basic structural

unit requested the next structural unit based on the standard, and the procedure in which the structural units were connected according to the connecting rules between the two, in other words the algorithm, was repeated, and the structural unit was self-organized to fill the void with the height of the new beam at the starting point and the size of the site frontage and depth, and the outline of the structure emerged (Fig. 17). By acquiring a structural unit, the new structure became a self-organizing structural system that, when an expandable gap was created it expands horizontally and vertically while repeating the procedure of increasing the number of structural units and connecting them one after another and connecting with the existing structures. A structural system, which expresses the total system of the algorithm clearer than the single beam that was originally planned to be created, based on the dynamic changes in the preconditions at the site and the examination by the parties

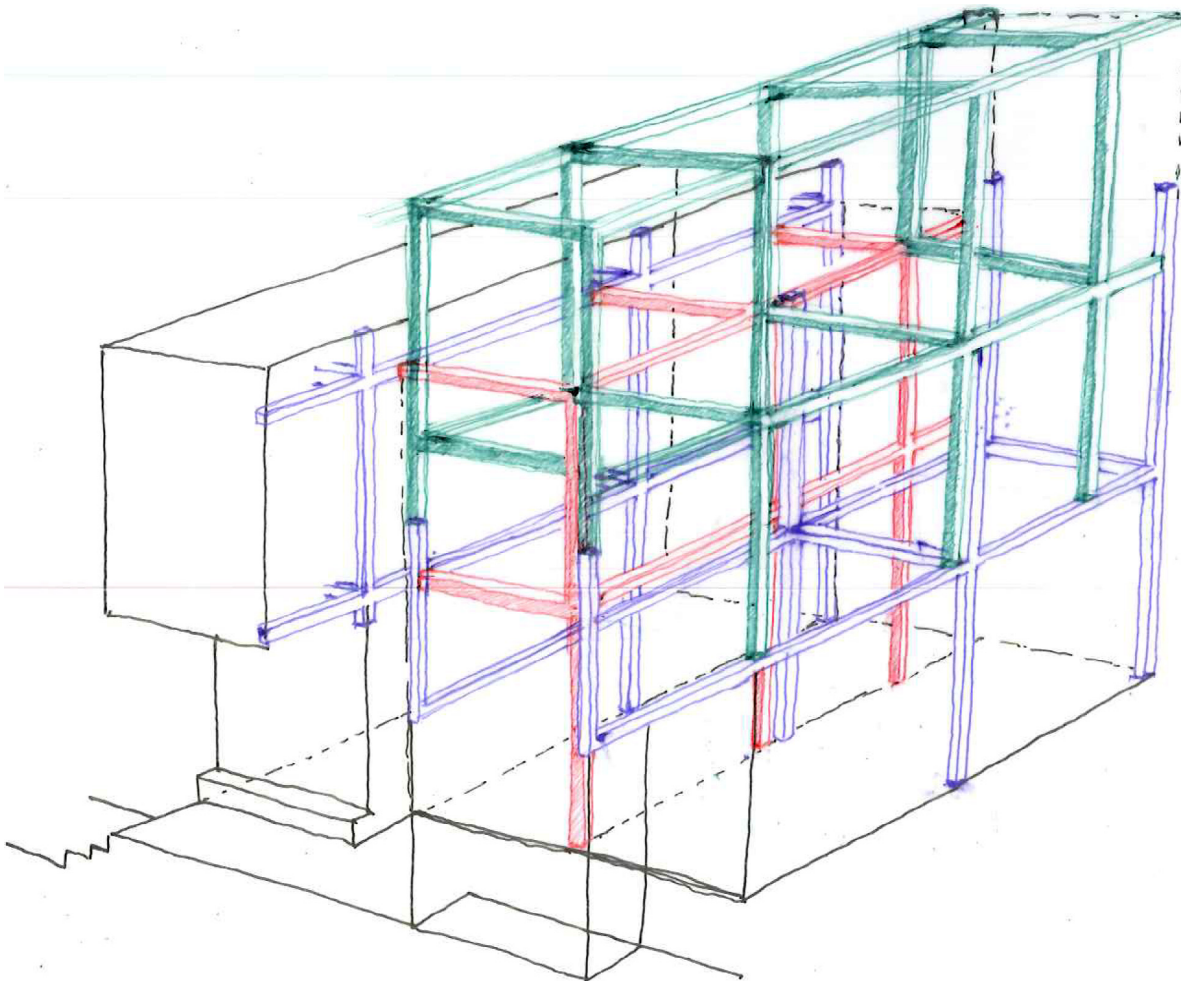


Figure 21 Extension of the Neighborhood Made by Recursion of Structural Units and Joining Them to a New Structure: A New Structure as the Physical Common Support that Expands

concerned with the idea of responding to the new situation, appeared there.

The newly constructed structure is a minimum structure in which three basic structural units are connected in the depth direction and two basic structural units are connected in the height direction (Fig. 19, 20). It cannot stand on its own and can only exist if the end of the beam on the non-column side is connected and supported by another structure. At first glance, the new structure appears to be a general rigid frame structure composed of orthogonal triaxial members. However, the structure is accumulation of structural units produced in the form. The form is generated by the surrounding conditions, that

is the physical form of the area as defined by the physical form of the existing structure's column spacing, beam height, spacing and orientation between the structures, and etc., which are formed in the course of daily lives of the dwellers. It takes the form of a pseudo-grid and expands, since the form is also influenced by present legal system and production system, that is the near-rectangular site shape, the near-planar walls possessed by the preceding structures, the planes and right angles of the plywood and square timbers that serve as the formwork, and etc.

This new structure is a physical common support while the neighboring network consists of mutual trust and supportive relationships is a non-

physical common support, and the neighbors can add new partial structures to create the active surface they need. The structure was actually added and expanded in this way (Fig. 21). In this way, an architecture that does not stand on its own and does not have the whole picture and the completed form was born. Created from fieldwork that captures the world as a network, this type of architecture could not have been realized by the common sense of modern architecture. Although simple, it is an unprecedented type of architecture that is generated through a network and embodies a network.

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