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Soft Tectonic/Adaptive Joint

Kuo Jui Lai
Syracuse University

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In Taipei, more than 70% of buildings are older than 30 years. The rate of illegal additions to existing buildings (wei...and illegal additions continue to be a mainstream practice.3

Illegal additions and the issue of renovating old buildings highlight the vitality and dynamism of Taipei, but also shows its risks. Illegal additions reduce the resilience of the city, as well as potential disasters such as earthquakes. While the building code requires structural reinforcement, fire escapes, and resistant materials, illegal additions will typically not comply. Instead, the intentions of the additions are focused on increasing space through means of improvisation and temporary materials This thesis seeks to revisit the role of illegal additions in order to satisfy government regulations while providing new flexibility and thinking about how the urban landscape of Taipei can be transformed through the addition of creative and responsive regulatory measures.

The largest number of buildings in Taipei are four stories high double sided apartments, and three stories shop houses. These buildings can be sorted into three categories: (1) penthouse additions; (2) window extensions; and (3) arcade occupancy. These additions are typically tacked onto the building's facade and roof as needed. For example, a rooftop area can be turned into a small farm and the arcade on the first floor be occupied by a semi-outdoor restaurant. In this study, can see a house being inflated by illegal additions throughout the time. On the other hand, the fire lane space provides an opportunity for the "adaptive joint framework", which not only addresses space needs of the building but also provides an opportunity to improve the beauty of the urban landscape and enhance disaster resilience. This provides the opportunity for this project to intervene.

If we look back to the feature of the old building and illegal addition together in Taipei. People are adding into the building's later and conducting a more comprehensive planning through structural and safety considerations. Illegal additions to old buildings are not only a way to add value but also to provide the "Creative Cities" or "Design Cities" that radically reduce the creativity of the city because of the design consistency through the entire city.

The thesis aims to create an "adaptive joint framework" in order to satisfy government regulations while providing new flexibility and thinking about how the urban landscape of Taipei can be transformed through the addition of creative and responsive regulatory measures. The thesis will focus on the role of illegal additions in order to provide new spaces that can be occupied by the public domain. The thesis will investigate how the "adaptive joint framework" can be implemented in order to provide resilient structural reinforcement and safety, while also considering the potential for urban renewal and improvement of the urban landscape. The thesis will present a new way to think about illegal additions in order to create a more dynamic and responsive urban landscape.
TAIWAN / TAIPEI
In recent years, the number of illegal constructions demolished for the first time is greater than the number of increases. Illegal construction has been increasing all over Taiwan, but it can also be seen that the government has been planning to implement the demolition of illegal construction.
The pace of confrontation between government and illegal construction is almost simultaneous.

Taipei city can also see that the entire illegal construction has been increasing.
PROCESS OF ILLEGAL ADDITION - 2009
PROCESS OF ILLEGAL ADDITION - 2014
DYNAMIC CITYSCAPE / RISK

OLD BUILDING + ILLEGAL ADDITION

GROUND LEVEL

DESTRUCTION

ereco

RECOVERY
Urban Renewal
Promote Urbanscaping
Disaster Resistant

DESIGN
PROTOTYPE OF ILLEGAL ADDITION

Building Inflation  Demolish  Rebuild
Illegal additions on the old building and re-framing of illegal addition’s regulatory public and private status.

Adaptive Joints are allowing some illegally built structures to remain and find path toward legalization by Adaptive Joints. Instead of simply copying the behaviors of the residents nowadays, the legitimacy has disappeared obviously. However, we still have to deal with the regulation issue and disasters issue on old buildings and illegal additions. Ultimately, the goal of this project is to provide new public space in the city which responds the Road Traffic Management Regulations through the new fire code and adapt the shape of the façade of old buildings and illegal additions. That reveals the space of the fire lane for the public use. It is a soft boundary for the public pass through the fire lane to the other main street become the main focus to activate this project. All venders occupied the main street and part of the arcade for their small business. Adaptive Joint open up the fire lane to connect to the arcade, which also provides space allows people to stop or pass through. The scaffold-like structure might divide the fire lane at three parts vertically. The rooftop could provide the space to deal with the lower income residential issue in this site through the new egress system which integrates with vacancy building. The middle level space could provide the vertical space for the public or owner's retail space.

Overlap mapping of overall urban renewal sites, vacancy buildings, soil liquefaction and old buildings could get a solid choice of the site to experiment the Adaptive Joint. The scene is rich with different level activities and issues such as market, residential, homeless concentration, religious ceremony…etc. This site could be perfectly revealed by the fire lane construction. This discourse leads this project to trace back to the old building code regulations No.110-1, if the fire lane smaller than three meters, the wall and opening should make fireproof limitation over one hour. If the fire lane bigger than three meters but smaller than six meters, the wall and opening should provide the foundation supplementary will be constructed by vernacular tectonic which is the same as an illegal addition. Steel C-Channels will form the structural grid to fill in the structural aesthetical. Adaptive Joints tend to be created the space to adapt in fire lanes to provide following opportunities.

How Adaptive Joint adapts in a fire lane? Illegal addition is so dynamic to occupy the space for a long term. The space of fire lane become an ambiguous space for the city. Adaptive Joint trying to accommodate the various individual needs, rather than trying to modify the chaotic structure. Adaptive Joints plays a critical role in opening up the private space to the public use and contributing the health, safety and beauty of existing buildings. It is another layer of the system that reinforces the structure of old buildings, wraps around the illegal boundary between two buildings and it is also an ambiguous space for the city. Adaptive Joint trying to accommodate the various individual needs, rather than trying to modify the chaotic structure. Adaptive Joints plays a critical role in opening up the private space to the public use and contributing the health, safety and beauty of existing buildings. It is another layer of the system that reinforces the structure of old buildings, wraps around the illegal boundary between two buildings and it is also an ambiguous space for the city.

What we can apply in the fire lane to activate the fire lane tactical? Based on the scenario of illegal additions in Taipei city, the dynamic model proposed by Mosso and Castagno at 50', the high-density residential mixed planning and illegal additions of Asian cities more clearly reflect their idea of a dynamic material. Additionally, Wachsmann also pointed out that Joint is the intersection of technology and aesthetics, so how to make space to accommodate the various individual needs while maintaining a dynamic world. Architecture should not be static, the key of Mosso's and Castagno's dynamic model is "joints." Just as illegal additions are built on the joints that are easy to assemble and disassemble. Moreover, Wachsmann also pointed out that Joint is the intersection of technology and aesthetics, so how to make space to accommodate the various individual needs while maintaining a dynamic world.
Illegal additions on the old building and re-framing of illegal addition's regulatory public and private status. Such as adding more fire protection materials, strong structures or beautiful additions to the facade. Adapt joints may help achieve the goal of disaster resilience by tie existing is allowing some illegally built structures to remain and find path toward legalization by Adaptive Joints. Instead of simply copying the behaviors of the residents nowadays, has disappeared obviously. However, we still have to deal with the regulation issue and disasters issue on old buildings and illegal additions. Ultimately, the goal of this project the illegal additions, which will greatly reduce the creativity and dynamism of the city. At the stage of the urban renewal proposal, the most unacceptable thing for residents is Adaptive Joints could be used as a new solution by people needed. The current model of urban renewal has failed because it is not feasible to go against residents and remove apply new materials and mechanisms to design new “Joint” to adapt to fire lane space in Taipei will become the key to start this design proposal.

By Mosso and Castagno at 50’, the high-density residential mixed planning and illegal additions of Asian cities more clearly reflect their idea of a dynamic material. Third, provide new public space in the city which responds the Road Traffic Management Regulations through that turning the private entities to provide new structural system to stabilize the old building. Second, increase the standard of fire protection which responds the new fire code through the additions and provide structural aesthetical. Adaptive Joints tend to be created the space to adapt in fire lanes to provide following opportunities. First, boundary between two buildings and it is also an ambiguous space for the city. Adaptive Joint trying to accommodate the various individual needs, rather How Adaptive Joint adapts in a fire lane? Illegal addition is so dynamic to occupy the space for a long term. The space of fire lane become an ambiguous also plays the role to support the illegal addition on the back side of the facade. The steel c-channels provides the track for the flexible enclosure to move the fire lane. That will support the main structure of the old building through the connection of the other old buildings in the same block. The new structure supplementary will be constructed by vernacular tectonic which is the same as an illegal addition. Steel C-Channels will form the structural grid to fill in the side. The inner pedestrian could open up the façade in to the building.

Residential issue in this site through the new egress system which integrates with vacancy building. The middle level space could provide the vertical space for the public or people pass through the fire lane. The scaffold-like structure might divide the fire lane at three parts vertically. The rooftop could provide the space to deal with the lower income brings the people up and down to pass by the different unit of illegal additions. The illegal addition might transfer to the small vender as the main street to run the business when small business. Adaptive Joint open up the fire lane to connect to the arcade, which also provides space allows people to stop or pass through. The scaffold like structure the public pass through the fire lane to the other main street become the main focus to activate this project. All venders occupied the main street and part of the arcade for their surrounding area which left more space for fire lane because of fragmentation of properties. Choose a small block right next to the temporary market on the main street to bring site is located on Monga, west Taipei, which is the oldest area of the city. The site is one of urban renewal spot plan by the city government which with chaotic urban condition Overlap mapping of overall urban renewal sites, vacancy buildings, soil liquefaction and old buildings could get a solid choice of the site to experiment the Adaptive Joint. The This discourse leads this project to trace back to the old building code regulations No.110-1, if the fire lane smaller than three meters, the wall and Management Regulations No.3 which like continuous arcade as a part of the pedestrian. That makes owner only be required to keep the fire lane Management Regulations, which still can maintain the space for resident use.

Based on the scenario of illegal additions in Taipei city, the dynamic model proposed what we can apply in the fire lane to activate the fire lane tactical? Illegal addition is so dynamic to occupy the space for a long term. The space of fire lane become an ambiguous.
Illegal additions on the old building and re-framing of illegal addition's regulatory public and private status. Such as adding more fire protection materials, strong structures or beautiful additions to the facade. Adapt joints may help achieve the goal of disaster resilience by tie existing is allowing some illegally built structures to remain and find path toward legalization by Adaptive Joints. Instead of simply copying the behaviors of the residents nowadays, has disappeared obviously. However, we still have to deal with the regulation issue and disasters issue on old buildings and illegal additions. Ultimately, the goal of this project that the amount of space they had has been removed. For residents, the quality of space is not an immediate benefit which they can imagine, but the "benefit" brought by space the illegal additions, which will greatly reduce the creativity and dynamism of the city. At the stage of the urban renewal proposal, the most unacceptable thing for residents is Adaptive Joints could be used as a new solution by people needed. The current model of urban renewal has failed because it is not feasible to go against residents and remove.How to apply new materials and mechanisms to design new "Joint" to adapt to fire lane space in Taipei will become the key to start this design proposal. Flexible fabric plays the critical role when illegal addition be demolished (if that still against the Road Traffic Management Regulations No.3 which like continuous arcade as a part of the pedestrian. That makes owner only be required to keep the fire lane make fireproof limitation over half hour. However, new fire regulations canceled fire lane code and replaced by purely fireproof limitation time because the health, safety and beauty of existing buildings. It is another layer of the system that reinforces the structure of old buildings, wraps around the illegal boundary between two buildings and it is also an ambiguous space for the city. Adaptive Joint trying to accommodate the various individual needs, rather than trying to modify the chaotic structure. Adaptive Joints plays a critical role in opening up the private space to the public use and contributing the HOW Adaptive Joint adapts in a fire lane? Illegal addition is so dynamic to occupy the space for a long term. The space of fire lane become an ambiguous material. Third, provide new public space in the city which responds the Road Traffic Management Regulations through that turning the private entities to provide new structural system to stabilize the old building. Second, increase the standard of fire protection which responds the new fire code through the WHAT we can apply in the fire lane to activate the fire lane tactical? Based on the scenario of illegal additions in Taipei city, the dynamic model proposed through the material. On the other hand, the flexible fabric plays the critical role when illegal addition be demolished (if that still against the Road Traffic Management Regulations No.3 which like continuous arcade as a part of the pedestrian. That reveals the space of the fire lane for the public use. It is a soft boundary for arcade sometime is a public motorbike parking space, sometime is a owner's retail space. Illegal Addition not blocks the passage on the path. As a reference of open up fire lane, the most common scenario in continuous arcade is that the space of (pedestrian) not be blocked and extend the fire protection time through the material. The illegal addition will become easier to be remained, if the illegal Overlap mapping of overall urban renewal sites, vacancy buildings, soil liquefaction and old buildings could get a solid choice of the site to experiment the Adaptive Joint. The site is located on Monga, west Taipei, which is the oldest area of the city. The site is one of urban renewal spot plan by the city government which with chaotic urban condition but full of different level activities and issues such as market, residential, homeless concentration, religious ceremony…etc. This site could be perfectly revealed by the fire lane site is one of urban renewal spot plan by the city government which with chaotic urban condition but full of different level activities and issues such as market, residential, homeless concentration, religious ceremony…etc. This site could be perfectly revealed by the fire lane.
This discourse leads this project to trace back to the old building code regulations No.110-1, if the fire lane smaller than three meters, the wall and opening should make fireproof limitation over one hour. If the fire lane bigger than three meters but smaller than six meters, the wall and opening should make fireproof limitation over half hour. However, new fire regulations canceled fire lane code and replaced by purely fireproof limitation time because the technology of fireproof material. That means if we reveal the exist fire lane to be the public use as a pedestrian will turn to the building code to Road Traffic Management Regulations No.3 which like continuous arcade as a part of the pedestrian. That makes owner only be required to keep the fire lane (pedestrian) not be blocked and extend the fire protection time through the material. The illegal addition will become easier to be remained, if the illegal addition not blocks the passage on the path. As a reference of open up fire lane, the most common scenario in continuous arcade is that the space of arcade sometime is a public motorbike parking space, sometime is a owner’s retail space.
FIRE LANE / TACTICAL

What we can apply in the fire lane to activate the fire lane tactical? Based on the scenario of illegal additions in Taipei city, the dynamic model proposed by Mosso and Castagno at 50’, the high-density residential mixed planning and illegal additions of Asian cities more clearly reflect their idea of a dynamic world. Architecture should not be static, the key of Mosso’s and Castagno’s dynamic model is “joints.” Just as illegal additions are built on the joints that are easy to assemble and disassemble. Moreover, Wachsmann also pointed out that Joint is the intersection of technology and aesthetics, so how to apply new materials and mechanisms to design new “Joint” to adapt to fire lane space in Taipei will become the key to start this design proposal.
FIRE LANE / TACTICAL

How Adaptive Joint adapts in a fire lane? Illegal addition is so dynamic to occupy the space for a long term. The space of fire lane become an ambiguous boundary between two buildings and it is also an ambiguous space for the city. Adaptive Joint trying to accommodate the various individual needs, rather than trying to modify the chaotic structure. Adaptive Joint plays a critical role in opening up the private space to the public use and contributing the health, safety and beauty of existing buildings. It is another layer of the system that reinforces the structure of old buildings, wraps around the illegal additions and provide structural aesthetical. Adaptive Joints tend to be created the space to adapt in fire lanes to provide following opportunities. First, provide new structural system to stabilize the old building. Second, increase the standard of fire protection which responds the new fire code through the material. Third, provide new public space in the city which responds the Road Traffic Management Regulations through that turning the private entities to the public domain. Fourth, introduce the commercial in the smaller scale street that already happen in Taipei’s new developed area (East Taipei), which is a good way to activate the dead space in the old area through the same tactical in this context (west Taipei).
Adaptive Joints investigates a flexible enclosure consisting of a series of structural supplementary. The structure supplementary provides the foundation to construct the new path to connect the continuous arcade in pedestrian level and allow people pass the fire lane at different elevation. The structural supplementary will be constructed by vernacular tectonic which is the same as an illegal addition. Steel C-Channels will form the structural grid to fill in the fire lane. That will support the main structure of the old building through the connection of the other old buildings in the same block. The new structure also plays the role to support the illegal addition on the back side of the facade. The steel c-channels provides the track for the flexible enclosure to move and adapt the shape of the facade of old buildings and illegal additions. That reveals the space of the fire lane for the public use. It is a soft boundary for private and public and could be adjusted and adapted for both side’s use through the channel. The flexible enclosure also provides the fire protection through the material. On the other hand, the flexible fabric plays the critical role when illegal addition be demolished (if that still against the Road Traffic Management Regulations), which still can maintain the space for resident use.
RE-REAMING PUBLIC AND PRIVATE

Overlap mapping of the overall urban renewal sites, vacancy buildings, soil liquefaction, and old buildings could get a solid choice of the site to experiment the Adaptive Joint. The site is located on Monga, west Taipei, which is the oldest area of the city. The site is one of urban renewal spot plan by the city government which has chaotic urban conditions but full of different level activities and issues such as market, residential, homeless concentration, religious ceremony... etc. This site could be perfectly revealed by the fire lane to public use to deal with illegal additions and old buildings issues. Looking into the overall site will find there is a small area with more chaotic condition compares with the surrounding area which left more space for the fire lane because of fragmentation of properties. Choose a small block right next to the temporary market on the main street to bring the public pass through the fire lane to the other main street become the main focus to activate this project. All vendors occupied the main street and part of the arcade for their small business. Adaptive Joint open up the fire lane to connect to the arcade, which also provides space allows people to stop or pass through. The scaffold-like structure brings the people up and down to pass by the different unit of illegal additions. The illegal addition might transfer to the small vendor as the main street to run the business when people pass through the fire lane. The scaffold-like structure might divide the fire lane at three parts vertically. The rooftop could provide the space to deal with the lower income residential issue in this site through the new egress system which integrates with vacancy building. The middle level space could provide the vertical space for the public or private, which depends on the soft boundary's position, when people are bringing into the fire lane. The pedestrian level will connect to the continuous arcade on the main street side. The inner pedestrian could open up the façade in to the building.
Adaptive Joints could be used as a new solution by people needed. The current model of urban renewal has failed because it is not feasible to go against residents and remove the illegal additions, which will greatly reduce the creativity and dynamism of the city. At the stage of the urban renewal proposal, the most unacceptable thing for residents is that the amount of space they had has been removed. For residents, the quality of space is not an immediate benefit which they can imagine, but the "benefit" brought by space has disappeared obviously. However, we still have to deal with the regulation issue and disasters issue on old buildings and illegal additions. Ultimately, the goal of this project is allowing some illegally built structures to remain and find path toward legalization by Adaptive Joints. Instead of simply copying the behaviors of the residents nowadays, such as adding more fire protection materials, strong structures or beautiful additions to the facade. AdapJoints may help achieve the goal of disaster resilience by tie existing illegal additions on the old building and re-framing of illegal addition's regulatory public and private status.
Illegal additions on the old building and re-framing of illegal addition's regulatory public and private status. Has disappeared obviously. However, we still have to deal with the regulation issue and disasters issue on old buildings and illegal additions. Ultimately, the goal of this project is to provide new public space in the city which responds the Road Traffic Management Regulations, which still can maintain the space for resident use. On the other hand, the flexible fabric plays the critical role when illegal addition be demolished (if that still against the Road Traffic Management Regulations No.3 which like continuous arcade as a part of the pedestrian. That makes owner only be required to keep the fire lane technology of fireproof material. That means if we reveal the exist fire lane to be the public use as a pedestrian will turn to the building code to Road Traffic Management Regulations No.110-1, if the fire lane smaller than three meters, the wall and overlap mapping of overall urban renewal sites, vacancy buildings, soil liquefaction and old buildings could get a solid choice of the site to experiment the Adaptive Joint. The adaptive joints could be used as a new solution by people needed. The current model of urban renewal has failed because it is not feasible to go against residents and remove adaptive joints investigations a flexible enclosure consisting of a series of structural supplementary. The structure supplementary provides the foundation and adapt the shape of the façade of old buildings and illegal additions. That reveals the space of the fire lane for the public use. It is a soft boundary for the residential issue in this site through the new egress system which integrates with vacancy building. The middle level space could provide the vertical space for the public or residential issue in this site through the new egress system which integrates with vacancy building. The scaffold-like structure might divide the fire lane at three parts vertically. The rooftop could provide the space to deal with the lower income surrounding area which left more space for fire lane because of fragmentation of properties. Choose a small block right next to the temporary market on the main street to bring public use to deal with illegal additions and old buildings issues. Looking into the overall site will find there is a small area with more chaotic condition compares with the surrounding area which left more space for fire lane because of fragmentation of properties. This site is located on Monga, west Taipei, which is the oldest area of the city. The site is one of urban renewal spot plan by the city government which with chaotic urban condition but full of different level activities and issues such as market, residential, homeless concentration, religious ceremony…etc. This site could be perfectly revealed by the fire lane that will support the main structure of the old building through the connection of the other old buildings in the same block. The new structure supplementary will be constructed by vernacular tectonic which is the same as an illegal addition. Steel C-Channels will form the structural grid to fill in the space of the fire lane. That will support the main structure of the old building through the connection of the other old buildings in the same block. The new structure supplementary will be constructed by vernacular tectonic which is the same as an illegal addition. Steel C-Channels will form the structural grid to fill in the space of the fire lane. That will support the main structure of the old building through the connection of the other old buildings in the same block. The new structure supplementary will be constructed by vernacular tectonic which is the same as an illegal addition. Steel C-Channels will form the structural grid to fill in the space of the fire lane. That will support the main structure of the old building through the connection of the other old buildings in the same block.
Illegal additions on the old building and re-framing of illegal addition's regulatory public and private status. Such as adding more fire protection materials, strong structures or beautiful additions to the facade. Adaptive Joints may help achieve the goal of disaster resilience by tying existing structures to the public domain.

Instead of simply copying the behaviors of the residents nowadays, Adaptive Joints could be used as a new solution by people needed. The current model of urban renewal has failed because it is not feasible to go against residents and remove illegal additions, which will greatly reduce the creativity and dynamism of the city. At the stage of the urban renewal proposal, the most unacceptable thing for residents is the loss of space.

What we can apply in the fire lane to activate the fire lane? Given the scenario of illegal additions in Taipei city, the dynamic model proposed by Mosso and Castagno at 50', the high-density residential mixed planning and illegal additions of Asian cities more clearly reflect their idea of a dynamic model that can adapt to the changing needs of the city.

We can provide new structural system to stabilize the old building. Second, increase the standard of fire protection which responds the new fire code through the technology of fireproof material. That means if we reveal the existing fire lane to be the public use as a pedestrian will turn to the building code to road traffic regulation.

This discourse leads this project to trace back to the old building code regulations No.110-1, if the fire lane smaller than three meters, the wall and boundary between two buildings and it is also an ambiguous space for the city. Adaptive Joint trying to accommodate the various individual needs, rather than trying to modify the chaotic structure. Adaptive Joints plays a critical role in opening up the private space to the public use and contributing the health, safety and beauty of existing buildings. It is another layer of the system that reinforces the structure of old buildings, wraps around the illegal addition and provide structural aesthetical.

REGULATIONS

Management Regulations No.3 which like continuous arcade as a part of the pedestrian. That makes owner only be required to keep the fire lane flexible enclosure also provides the fire protection and adapt the shape of the façade of old buildings and illegal additions. That reveals the space of the fire lane for the public use. It is a soft boundary for people pass through the fire lane. The scaffold-like structure might divide the fire lane at three parts vertically. The rooftop could provide the space to deal with the lower income small business. Adaptive Joint open up the fire lane to connect to the arcade, which also provides space allows people to stop or pass through. The scaffold like structure brings the people up and down to pass by the different unit of illegal additions. The illegal addition might transfer to the small vendor as the main street to run the business when surrounding area which left more space for fire lane because of fragmentation of properties. Choose a small block right next to the temporary market on the main street to bring the public pass through the fire lane to the other main street become the main focus to activate this project. All venders occupied the main street and part of the arcade for their site is located on Monga, west Taipei, which is the oldest area of the city. The site is one of urban renewal spot plan by the city government which with chaotic urban condition.
Illegal additions on the old building and re-framing of illegal addition's regulatory public and private status. Such as adding more fire protection materials, strong structures or beautiful additions to the facade. Adaptive joints may help achieve the goal of disaster resilience by tying existing elements together. The amount of space they had has been removed. For residents, the quality of space is not an immediate benefit which they can imagine, but the "benefit" brought by space and the creative and dynamic functions of the city. At the stage of the urban renewal proposal, the most unacceptable thing for residents is the loss of creative and dynamic functions of the city.

Adaptive joints could be used as a new solution by people needed. The current model of urban renewal has failed because it is not feasible to go against residents and remove illegal additions, which will greatly reduce the creativity and dynamism of the city. At the stage of the urban renewal proposal, the most unacceptable thing for residents is the loss of creative and dynamic functions of the city. At the stage of the urban renewal proposal, the most unacceptable thing for residents is the loss of creative and dynamic functions of the city.

Applying new materials and mechanisms to design new "joints" to adapt to fire lane space in Taipei will become the key to start this design proposal. Architecture should not be static, the key of Mosso's and Castagno's dynamic model is "joints." Just as illegal additions are built on the joints that enable the building to adapt, the high-density residential mixed-use planning and illegal additions of Asian cities more clearly reveal the idea of a dynamic system.

Third, provide new public space in the city which responds to the Road Traffic Management Regulations through turning the private entities to public use. On the other hand, the flexible fabric plays the critical role when illegal additions are demolished (if that still against the Road Traffic Management Regulations). The flexible fabric provides the soft boundary between two buildings and it is also an ambiguous space for the city. Adaptive joints try to accommodate the various individual needs, rather than trying to modify the chaotic structure. Adaptive joints play a critical role in opening up the private space to the public use and contributing to the health, safety and beauty of existing buildings. It is another layer of the system that reinforces the structure of old buildings, wraps around the illegal additions and provides structural aesthetics. Adaptive joints tend to be created to adapt to the fire lane to provide the following opportunities.

First, provide new structural systems to stabilize the old building. Second, increase the standard of fire protection which responds to the new fire code through the use of fireproof materials. Third, provide new public space in the city which responds to the Road Traffic Management Regulations through turning the private entities to public use.

How Adaptive Joints adapt in a fire lane? Illegal additions are so dynamic to occupy the space for a long term. The space of fire lane becomes an ambiguous space that is hard to control. The pedestrian level will connect to the continuous arcade on the main street that people can bring up and down to pass by the different units of illegal additions. The illegal addition might transfer to the small vendor as the main street to run the business. Adaptive joints open up the fire lane to connect to the arcade, which also provides space for people to stop or pass through. The scaffold-like structure allows people to pass through the fire lane to the other main street, becoming the main focus to activate this project. All vendors occupy the main street and part of the arcade for their business.

The site is located on Monga, west Taipei, which is the oldest area of the city. The site is one of the urban renewal spots planned by the city government which has chaotic urban conditions. Looking into the overall site will find there is a small area with more chaotic conditions compared with the surrounding area which leaves more space for fire lane because of fragmentation of properties. Choose a small block right next to the temporary market on the main street to bring public use to deal with illegal additions and old buildings issues. This discourse leads this project to trace back to the old building code regulations No.110-1, if the fire lane is smaller than three meters, the wall and supplementary will be constructed by vernacular tectonic which is the same as an illegal addition. Steel C-Channels will form the structural grid to fill in the fire lane. That will support the main structure of the old building through the connection of the other old buildings in the same block. The new structure will support the main structure of the old building through the connection of the other old buildings in the same block. The new structure will also support the main structure of the old building through the connection of the other old buildings in the same block.
Dynamic modification of a structure with a virtual joint. Courtesy Leonardo Mosso and Laura Castagno.
"The joint is not a necessary evil. Accordingly, it does not need to be concealed with seal strips and so on, like an object of shame. It stands out as a formative element, which has evolved with progress in technology. As the surface texture is smoothed out, the rhythm of light and shade, structure, planes and volumes is taken up in the play of incorporeal lines, the joints, on opaque, luminous or moving surfaces. These joints not only indicate zones of contact but scrupulously define any object they enclose. They not only reflect processes of aesthetic importance but represent the results of technical functions and are to be understood as such. Their place is determined by materials and methods, structural principles, standards and modular order. In certain circumstances they conceal systems of connections and the principle of the structure. In the perfect relationship of object, function and separation the joint communicates a new visual attitude."

- Konrad Wachsmann

How to apply new materials and mechanisms to design new "Joint"?
Illegal additions on the old building and re-framing of illegal addition's regulatory public and private status. Is allowing some illegally built structures to remain and find path toward legalization by Adaptive Joints. Instead of simply copying the behaviors of the residents nowadays, that the amount of space they had has been removed. For residents, the quality of space is not an immediate benefit which they can imagine, but the "benefit" brought by space the illegal additions, which will greatly reduce the creativity and dynamism of the city. At the stage of the urban renewal proposal, the most unacceptable thing for residents is Adaptive Joints could be used as a new solution by people needed. The current model of urban renewal has failed because it is not feasible to go against residents and remove apply new materials and mechanisms to design new "Joint" to adapt to fire lane space in Taipei will become the key to start this design proposal.

Adaptive Joints investigates a flexible enclosure consisting of a series of structural supplementary. The structure supplementary provides the foundation health, safety and beauty of existing buildings. It is another layer of the system that reinforces the structure of old buildings, wraps around the illegal additions and provide structural aesthetical. Adaptive Joints tend to be created the space to adapt in fire lanes to provide following opportunities. First, supplementary will be constructed by vernacular tectonic which is the same as an illegal addition. Steel C-Channels will form the structural grid to fill in surrounding area which left more space for fire lane because of fragmentation of properties. Choose a small block right next to the temporary market on the main street but full of different level activities and issues such as market, residential, homeless concentration, religious ceremony…etc. This site could be perfectly revealed by the fire lane site is located on Monga, west Taipei, which is the oldest area of the city. The site is one of urban renewal spot plan by the city government which with chaotic urban condition

How Adaptive Joint adapts in a fire lane? Illegal addition is so dynamic to occupy the space for a long term. The space of fire lane become an ambiguous side. The inner pedestrian could open up the façade in to the building. private, which depends on the soft boundary’s position, when people be bringing into the fire lane. The pedestrian level will connect to the continuous arcade on the main street people pass through the fire lane. The scaffold-like structure might divide the fire lane at three parts vertically. The rooftop could provide the space to deal with the lower income brings the people up and down to pass by the different unit of illegal additions. The illegal addition might transfer to the small vender as the main street to run the business when surrounding area which left more space for fire lane because of fragmentation of properties. Choose a small block right next to the temporary market on the main street to bring opening should make fireproof limitation over one hour. If the fire lane bigger than three meters but smaller than six meters, the wall and opening should technology of fireproof material. That means if we reveal the exist fire lane to be the public use as a pedestrian will turn to the building code to Road Traffic Management Regulations), which still can maintain the space for resident use.
illegal additions on the old building and re-framing of illegal addition's regulatory public and private status. Such as adding more fire protection materials, strong structures or beautiful additions to the facade. Adaptive joints may help achieve the goal of disaster resilience by tie existing...

...has disappeared obviously. However, we still have to deal with the regulation issue and disasters issue on old buildings and illegal additions. Ultimately, the goal of this project... Adaptive Joints could be used as a new solution by people needed. The current model of urban renewal has failed because it is not feasible to go against residents and remove...

...apply new materials and mechanisms to design new "Joint" to adapt to fire lane space in Taipei will become the key to start this design proposal. Architecture should not be static, the key of Mosso's and Castagno's dynamic model is "joints." Just as illegal additions are built on the joints that...

...additions and provide structural aesthetical. Adaptive Joints tend to be created the space to adapt in fire lanes to provide following opportunities. First, health, safety and beauty of existing buildings. It is another layer of the system that reinforces the structure of old buildings, wraps around the illegal...

...boundary between two buildings and it is also an ambiguous space for the city. Adaptive Joint trying to accommodate the various individual needs, rather...

...AMBIGUOUS BOUNDARY / SPACE

Flexible Enclosure Dynamic Public space Dynamic Private space

Fire Lane Urban Acupuncture Structure Supplementary + Fire Proof Area

1-3 M

4-6 M

Overlap mapping of overall urban renewal sites, vacancy buildings, soil liquefaction and old buildings could get a solid choice of the site to experiment the Adaptive Joint. The...

...addition not blocks the passage on the path. As a reference of open up fire lane, the most common scenario in continuous arcade is that the space of (pedestrian) not be blocked and extend the fire protection time through the material. The illegal addition will become easier to be remained, if the illegal...

...Technology of fireproof material. That means if we reveal the exist fire lane to be the public use as a pedestrian will turn to the building code to Road Traffic...make fireproof limitation over half hour. However, new fire regulations canceled fire lane code and replaced by purely fireproof limitation time because the...

...management Regulations No.3 which like continuous arcade as a part of the pedestrian. That makes owner only be required to keep the fire lane...

...site is located on Monga, west Taipei, which is the oldest area of the city. The site is one of urban renewal spot plan by the city government which with chaotic urban condition...

...site could be perfectly revealed by the fire lane...
ADAPTIVE JOINT

Flexible Enclosure

Opening

Structure Supplementary

Channel

Fire Lane

Connection
CITATION:


