Una visión para el futuro de Talca: Estudio de reconstrucción y redesarrollo post terremoto

A vision for Talca’s future: Post-earthquake reconstruction redevelopment studio
A VISION FOR TALCA’S FUTURE:

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REDEVELOPMENT STUDIO
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On February 27, 2010, the sixth largest earthquake in world history wreaked havoc on Chile, affecting 12.8 million people. Talca lies less than 100 kilometers from the epicenter of the 8.8 magnitude earthquake, and the city was severely damaged; a year after the quake, the municipality of Talca declared nearly 11 thousand homes uninhabitable.

El 27 de febrero de 2010, el sexto terremoto más grande en la historia mundial causó estragos en Chile, afectando a 12.8 millones de personas. Talca se encontraba a menos de 100 kilómetros del epicentro del sismo de magnitud 8.8, y la ciudad fue severamente dañada; un año después del terremoto, la Municipalidad de Talca declaró cerca de 11,000 viviendas inhabitable.
Talca was originally founded in 1962 by Tomás Marín de Poveda, and refounded as Villa San Agustín de Talca in 1741. The city is the political capital of the Maule region, and has served as an important economic and cultural center of the region throughout its history, including being the site of Bernardo O’Higgins’s signing of Chilean Declaration of Independence in 1818.

During the nineteenth century, Talca was a thriving economic center, owed to booming agricultural and manufacturing industries in the region, including wheat, wine, paper, flood, and leather. These products were exported to cities across the globe. The presence of the local agricultural landowning aristocracy brought great wealth to the city, and resulted in the development of a trolley system and the construction of magnificent architectural works such as the Bank of Talca, Teatro Municipal, and the city’s train station. These landmarks, as well as many grand homes, symbolized Talca’s progress and growth.

An influx of populations from cities such as Santiago and Valparaíso, as well as from Europe, gave the city of Talca a cosmopolitan reputation as a modern cultural hub, which resulted in the now commonly used marketing phrase “Talca, Paris, y Londres.” The city was also well known for its intellectual scene, with various academic institutes, newspapers, and professionals residing in the city.

A major earthquake in 1928 followed by the Great Depression in 1930 resulted in a movement of the population out of the city center, and diminished the national importance of Talca as an economic hub. However, much of the historical fabrics of the city remained as a reminder of its former splendor.

Talca was fundada originalmente en 1962 por Tomás Marín de Poveda, y refundada como Villa San Agustín de Talca en 1741. La ciudad es la capital política de la región del Maule, y ha servido como un importante centro económico y cultural de la región y del país durante toda su historia, además de ser el lugar de la firma de la Declaración de Independencia de Chile en 1818, por Bernardo O’Higgins.

Durante el siglo XIX, Talca fue un centro económico floreciente, debido al auge de las industrias agrícolas y manufactureras en la región, entre ellas el trigo, vino, papel, riego, y cuero. Estos productos fueron exportados a ciudades de todo el mundo. La presencia de la aristocracia terrateniente en la agricultura local trajo gran riqueza a la ciudad, teniendo como resultado el desarrollo de un sistema de tranvía y la construcción de magníficas obras arquitectónicas, como el Banco de Talca, el Teatro Municipal y la estación de tren de la ciudad. Estos puntos de referencia, así como muchas grandes casas con características arquitectónicas diferentes, simbolizan el progreso y el crecimiento de Talca.

La afluencia de población de ciudades como Santiago y Valparaíso, así como de Europa, dio a la ciudad de Talca la reputación cosmopolita como un centro cultural moderno, e incluso dio lugar una la frase de marketing utilizada comúnmente en la actualidad: “Talca, París y Londres”. La ciudad fue también muy conocida por su escena intelectual y literaria, con diversas instituciones académicas, periódicos, y famosos historiadores y profesionales que residieron en la ciudad.

Un gran terremoto en 1928 seguido por la Gran Depresión en 1930 dio lugar a un movimiento de la población fuera del centro de la ciudad, disminuyendo la importancia nacional de Talca como una potencia económica. Sin embargo, gran parte de los tejidos históricos de la ciudad quedaron como un recuerdo de su antiguo esplendor.
Street 1 Sur, before the earthquake of 1928 / Calle 1 Sur, previo al terremoto de 1928.
Before the earthquake 20 percent of Talca residents lived in the central district within which Barrio Las Heras is located. It was a place of great social mixing, with older residents who had lived in neighborhood for generations, and younger students informally renting accessory units or rooms.

Given the high value of central district land, this area represented a unique mix of social class, as Chile has one of the greatest income gaps among developed countries. Additionally, the presence of many long-term residents who led traditional Chilean lifestyle contributed to the neighborhood’s strong sense of community.

Antes del terremoto, el 20 por ciento de los residentes de Talca vivían en el distrito central dentro del cual se localizaba el Barrio Las Heras. Era un lugar de gran diversidad social, con residentes viejos que habían vivido en el barrio durante generaciones, y los estudiantes jóvenes rentando informalmente unidades accesorias o habitaciones. Dado el alto valor de los terrenos del distrito central, esta área representó una mezcla única de clases sociales, como Chile que tiene una de los mayores desfases de ingresos entre los países desarrollados. Además, la presencia de muchos de los residentes antiguos quienes llevaron el estilo de vida tradicional chilena contribuyó al fuerte sentido de comunidad del barrio.
Barrio las Heras is situated on block north of Alameda, and is bounded by Nueve Norte to the north, Ocho Oriente to the east, Cinco Norte to the south, and Tres Oriente to the west. The neighborhood consists of 24 regularly shaped 400-foot by 400-foot city blocks ringing the Plaza las Heras, a large public square with gathering spaces, including a skateboarding park, seating areas, and plantings. In contrast to the regular form of Barrio Las Heras’ blocks, the building lots that comprise them are irregular in shape, and appear unplanted, the result of successive divisions and re-parceling measures. Lots range in size, with buildings typically situated to the front of the lot. In general, the lots are occupied by compact one-story houses along the street frontage, with large interior lot areas, which remain empty as yards or developed with informal ad-hoc structures.

The neighborhood is residential, with a handful of neighborhood grocers. A school is located on the block to the northeast of the central plaza, as well as a church, a gathering space for the community center, and an auto repair shop.

El Barrio las Heras se encuentra en el bloque norte de la Alameda, y está delimitado por Nueve Norte al norte, Ocho Oriente hacia el este, Cinco Norte al Sur, y Tres Oriente hacia el oeste. En total, el barrio se compone de 24 cuadras regulares de 400 por 400 pies, rodeando la Plaza las Heras, una gran plaza pública con espacios de reunión, incluyendo un parque de patinetas, áreas de descanso, y plantaciones. En contraste con la forma regular de las cuadras en el Barrio Las Heras, los lotes de construcción que los integran son de forma irregular, y aparecen sin plantar, como resultado de sucesivas divisiones y las medidas de re-parcelación. Los lotes varían en tamaño, con edificios situados normalmente en la parte delantera del terreno. En general, los lotes están ocupados por casas de una planta compacta a lo largo de la fachada de la calle, con grandes áreas de terreno al interior, que permanecen vacíos como patios o desarrollados con estructuras informales ad-hoc.

El barrio es de carácter residencial, con un puñado de pequeños supermercados vecinales. La escuela se encuentra en la cuadra al noreste de la plaza central, así como una iglesia, un espacio de encuentro para el centro comunitario, y un taller de reparación automotriz.
On February 27, 2010, the sixth largest earthquake in world history wreaked havoc on Chile, affecting 12.8 million people. Talca lies less than 100 kilometers from the epicenter of the 8.8 magnitude earthquake, and the city was severely damaged; a year after the quake, the municipality of Talca declared nearly 11 thousand homes uninhabitable. 40 percent of the buildings in the city’s historic center were affected, a majority of which were built prior to the succession of strict national building codes implemented throughout the twentieth century.

The abrupt change in the physical landscape due to the earthquake left Talca with a severe need for housing, and a massively displaced population. Without an established reconstruction plan or an emergency management agency at the national, regional, or local levels, many public, private and nonprofit actors became involved to address the devastation and displacement.

El 27 de febrero de 2010, el sexto terremoto más grande en la historia mundial causó estragos en Chile, afectando a 12.8 millones de personas. Talca se encontraba a menos de 100 kilómetros del epicentro del sismo de magnitud 8.8, y la ciudad fue severamente dañada; un año después del terremoto, la Municipalidad de Talca declaró cerca de 11,000 viviendas inhabitable. 40 por ciento de los edificios en el centro histórico de la ciudad se vieron afectados, la mayoría de los cuales fueron construidos antes de la sucesión de los estrictos códigos de construcción nacionales implementados durante el siglo XX.

El cambio abrupto en el paisaje físico debido al terremoto dejó a Talca con un requerimiento importante de viviendas, y una gran cantidad de población desplazada. Sin un plan de reconstrucción establecido o una agencia de manejo de emergencias a nivel nacional, regional o local, muchos de los actores no lucrativos tanto públicos como privados se involucraron haciendo te a la devastación y el desplazamiento.
“The abrupt change in the physical landscape due to the earthquake left Talca with a severe need for housing, and a massively displaced population.”

“El cambio abrupto en el paisaje físico debido al terremoto dejó a Talca con un requerimiento importante de viviendas, y una gran cantidad de población desplazada.”
A Vision for Talca / Una Visión para Talca

In the wake of the earthquake, DUPLA Architects developed a Master Plan for the Reconstruction of Talca; this has guided the reconstruction efforts and development. In the 1980’s, industry began to flourish since its release. The plan highlights four main goals: the improvement of public spaces, the redevelopment of the waterfront, the creation of a mixed-use neighborhood around the train station, and increased density within the city’s historic center.

A raíz del terremoto, Arquitectos DUPLA desarrollaron un Plan Maestro para la Reconstrucción de Talca, lo que ha guiado los esfuerzos de reconstrucción y desarrollo. En la década de 1980, la industria comenzó a florecer desde su lanzamiento. El plan destaca cuatro objetivos principales: la mejora de los espacios públicos, la remodelación del paseo marítimo, la creación de una zona de uso mixto en torno a la estación de tren, y el aumento de la densidad dentro del centro histórico de la ciudad.

Growth of the City / Crecimiento de la Ciudad

According to the 2012 decennial Census, the city of Talca grew by 23.88 percent between 2002 and 2012 – a significantly greater rate than the national population growth of 15.1 percent over the same period.

Given the city’s low average birth rate of 1.9, factors other than natural growth appear to have been at play. Two possible explanations of this population increase are the expansion of the city’s limits in 2010 and the boom in housing construction that occurred after the earthquake.

De acuerdo con el Censo decenal de 2012, la ciudad de Talca creció un 23.88 por ciento entre 2002 y 2012, una tasa significativamente mayor que el crecimiento de la población nacional de 15.1 por ciento durante el mismo periodo. Dado el bajo índice de natalidad promedio de la ciudad de 1.9, factores distintos de crecimiento natural parecen haber estado en juego. Dos posibles explicaciones de este aumento de la población son la expansión de los límites de la ciudad en 2010 y el auge de la construcción de viviendas que se produjo tras el terremoto.
Expansion of the City Limits / Expansión de los límites de la Ciudad

The Municipal Secretariat for Planning’s 2010 Regulatory Plan expanded Talca’s city limits significantly to the north and the east, tripling the area of the city from 300,000 ha to 900,000 ha. The plan responded to the 2010 earthquake, and intended to complement the Master Plan developed by DUPLA.

The Regulatory Plan governs the growth of the regional capital for the next 30 years. The plan divides the city by land use such as residential, industrial, tourist, commercial, and green areas, among others. A new focus of the plan is on the developing agricultural manufacturing region to the north of the city, and a connection to an international highway to Argentina (with accompanying services and support industry) to the southeast of the city, made possible by the expansion of the city limits.

El Plan Regulador de 2010 de la Secretaría Municipal de Planificación expandió significativamente los límites de la ciudad de Talca hacia el norte y el este, triplicando el área de la ciudad de 300,000 a 900,000 hectáreas. El plan responde al terremoto de 2010, con el propósito de complementar el Plan Maestro desarrollado por DUPLA.

El Plan Regulador controló el crecimiento en la región de la capital durante los próximos 30 años. El plan divide a la ciudad por uso del suelo como residencial, industrial, turístico, comercial y áreas verdes, entre otros. Un nuevo enfoque del plan consiste en el desarrollo de la producción agrícola de la región al norte de la ciudad, y una conexión a una autopista internacional hacia Argentina (acompañado de servicios y apoyo industrial) al sureste de la ciudad, que fue posible por la expansión de los límites de la ciudad.
Community, nonprofit and academic initiatives / Iniciativas comunitarias, sin fines de lucro y académicas.

In reflection to and in conjunction with the housing reconstruction occurring throughout Talca, several community, nonprofit, and academic organizations have come to the forefront. These seem to either show support for, or researching new mechanisms for addressing the problems that remain.

Community groups / Grupos comunitarios

Neighborhood groups are self-organizing amidst the reconstruction process. The Barrio San Antonio neighborhood, west of Las Heras, is one such example. Residents of this historic neighborhood object to the area new development, which does not form a street way and so is diminishing connection to the street.

Grupos comunitarios están organizados entre ellos en medio del proceso de reconstrucción. El Barrio San Antonio, al oeste de Las Heras, es un ejemplo de ello. Residentes del barrio histórico protestan por el área del nuevo desarrollo, que no da un sentido a la calle disminuyendo así su conexión con ella.
**Academic research and support / Investigación y apoyo académico**

The architecture school at the University of Talca has played a critical role in the rebuilding efforts, as many student projects have focused on developing new housing models for displaced residents. Within the Catholic University of Maule, CEUT, the Center for Urban and Territorial Studies, has developed strategies for rebuilding effort.

**SurMaule / Surmaule**

As one of the most active non-profit groups involved in Talca’s housing reconstruction, SurMaule has taken a publicly critical view of the reconstruction process. It believes that the Reconstruction Plan has had little oversight and is serving the interest of the market, leading to an expansion of the urban area and densification of the center without the implementation of proper services. SurMaule has a contentious relationship with SERVIU, and there is little communication between the two organizations.
SERVIU and SEREMI, as regional representatives of MINVU, developed the subsidies originally created by MINVU to meet the specific needs of the Maule region. These subsidies address the owners of the 47,629 homes damaged in the region. In Talca, the efforts of these agencies have been informed by the Master Plan for Reconstruction.

The physical manifestations of SERVIU’s post-earthquake housing reconstruction efforts have taken several forms: large-scale residential buildings in the city center, made possible through densification subsidies; in-situ temporary homes; in-situ prefabricated homes, some of which conform with the city center’s traditional continuous facades; large stretches of replacement housing located outside of the city center and large-scale mixed-income apartment buildings located to the periphery of the city center.

Private sector developers work closely with SERVIU constructing these new housing developments throughout the city. in the center of the city, a large number of non-vacant lots let to speculation, as private developers sought both to make use of MINVU’s new densification subsidies and to construct other forms of housing. These include gated row house developments, which have proliferated in Barrio Las Heras. These developments increased density on some of the large narrow lots found throughout the neighborhood.

Housing development patterns in Talca emergent following the earthquake mirror activity in the greater Chilean housing market, which favors buying over renting. The second quarter of 2012 witnessed a 35 percent growth in homeownership in Chile. A higher standard of amenities is also being requested by Chileans, reflected in high housing construction costs per square meter.
“Housing development patterns in Talca emergent following the earthquake mirror activity in the greater Chilean Housing market, which favors buying over renting.”

“Los patrones de desarrollo de la vivienda en Talca emergen después de la actividad del terremoto reflejada en el gran mercado inmobiliario chileno, lo que favorece la compra frente al alquiler.”

foot; these average $160 U.S. cities, such as Chicago, which has an average housing construction cost of $158 per square foot.

los $160 dólares en ciudades como Chicago, que tiene un costo promedio de construcción de viviendas de $158 dólares por pie cuadrado.
One of the major strengths of the reconstruction effort has been the diversity of subsidies and housing options; the breath of these alludes to the need for multiple solutions. Through the diversity of housing options, a large number of those affected by the earthquake have been relocated to new homes, or provided with new homes on their existing properties.

Una de las principales fortalezas de la reconstrucción ha sido la diversidad de los subsidios y las opciones de vivienda, el aliento de estos alude a la necesidad de múltiples soluciones. A través de la diversidad de opciones de vivienda, un gran número de personas afectadas por el terremoto han sido reubicadas en nuevas viviendas, o provistos de nuevos hogares en las propiedades existentes.

ANÁLISIS
One of the major strengths of the reconstruction effort has been the diversity of subsidies and housing options; the breath of these alludes to the need for multiple solutions. Through the diversity of housing options, a large number of those affected by the earthquake have been relocated to new homes, or provided with new homes on their existing properties. The goals of many of the reconstruction subsidies have also successfully incorporated broader urban issues, such as densification, mixed-income development, and preservation.

Lastly, Talca’s reconstruction plans express a vision for the future by highlighting a renewed interest in smart, sustainable, and stronger planning for this country prone to natural disasters.

Many of the goals of MINVU’s housing subsidies and programs have not been achieved. The diversity of programs has spurred eclectic and uncontrolled construction and development, which has led to a loss of neighborhood character, particularly in the center of the city. This loss of character is exacerbated by densification projects and some of the continuous façade buildings, which abandon traditional vernacular construction methods and contrast with the city’s typical architectural styles. Although the goal of the continuous façade subsidy is to integrate new buildings with the historic fabric, the change of the historic center’s setback in the new Regulatory Plan undermines the effort.

The result is a contextual building type that contradicts the fabric of the neighborhood. In the development of a trolley system and the construction of magnificent architectural works such as the Bank of Talca, Teatro Municipal, and the Bank of Talca, Teatro Municipal, and the
city’s train station. These landmarks, as well as many grand homes with distinct architectural features, symbolized Talca’s progress and growth.

Additionally, the displacement of center city residents to the city’s periphery further dissolves community this and decreases accessibility. Issues of accessibility and increased auto dependency are also a result of the lack of mixed-used developments. Reconstruction efforts have focused on providing housing, overlooking needs for essential services. This has been one of the central criticisms of the reconstruction efforts from non-profits life SurMaule.

Finally, there is a lack of institutional coordination between the involved actors to address the many remaining abandoned and demolished lots throughout the city center. Given the number of public, private, and nonprofit actors involved in the reconstruction, and despite their shared goals for rebuilding the city and rehousing its residents, coordination issues are a major barrier to the success of Talca’s reconstruction.
SERVIU has stated an interest in taking a broader community approach. Its openness to community empowerment offers the opportunity to define and address some of the broader community goals that deserve equal attention. Furthermore, the abundance of vacant lots in the center of the city offer potential sites for implementation of such community-based plans.

It is imperative that a reassessment of both the ongoing reconstruction efforts and the vision for Talca’s future is performed before certain irreversible construction plans take effect. The current patterns of displacement do not appear to be slowing, and these continue to undermine the sense of community character and its nature of social mixing, which were strong in the city center prior to the 2010 earthquake.

Additionally, though housing production is a means for economic development and job creation, research is beginning to show that current rate of construction outweigh real demand. This is an unsustainable form of economic development. A more diverse vision of Talca’s economic future is needed to ensure the viability of the city and its residents.
“Though housing production is a means for economic development and job creation, research is beginning to show that current rate of construction outweigh real demand.”

“Aunque la producción de vivienda es un medio para el desarrollo económico y la creación de empleo, la investigación está empezando a mostrar que la tasa actual de construcción supera la demanda real.”
The project operates on different levels to achieve diverse goals for Talca. At the lot level the implementations work to connect people. On the lot level connections efforts are made to encourage mixed use and infill.

El proyecto opera a diferentes niveles para lograr diversos objetivos en Talca. A nivel de lote la implementación de trabajos para conectar a la gente. En el nivel de lote se hacen esfuerzos de conexiones para fomentar el uso mixto y relleno.
The project operates on different levels to achieve diverse goals for Talca. At the lot level the implementations work to connect people. On the lot level connections efforts are made to encourage mixed use and infill. On the block level, it is recommended that developers create pathways through the blocks, generating more options for housing. On the neighborhood level, preservation of the existing structures and incorporation into new projects is required to retain the visual culture of Talca.

El proyecto opera a diferentes niveles para lograr diversos objetivos en Talca. A nivel de lote la implementación de trabajos para conectar a la gente. En el nivel de lote se hacen esfuerzos de conexiones para fomentar el uso mixto y relleno. En el nivel de bloque, se recomienda que los desarrolladores creen vías a través de los bloques, generando más opciones de vivienda. En el nivel de los barrios, se requiere la preservación de las estructuras existentes y la incorporación de nuevos proyectos para conservar la cultura visual de Talca.
Background / Antecedente

Talca’s reconstruction efforts can be summed up in one word: housing. Little thought has been given to broader community goals, evident in both the deficiency of community involvement and single-use nature of the development that has occurred. Local residents are given little say in the future of their city and of their community, and local businesses destroyed by the earthquake are forced out.

Goal / Meta

At the scale of the individual lot, this project seeks to encourage mixed-use economic development by promoting defined sites of neighborhood identity, increased available mixed-use program and community public spaces. The organization of these regional hubs of activity is intended as a sustainable form of development that would strengthen neighborhood character.

Additionally, the lots will offer live-work housing alternatives and affordable housing units through government-delivered subsidies. Imperative to the program and use of these sites is community involvement, to encourage self-sufficiency both in the short and long term.

Physical Form / Forma Física

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Como una intervención que pasaría en el nivel de lote, este programa requerirá primero la identificación de Sitios Prioritarios de Desarrollo en toda la ciudad, cada uno centrado en torno a un eje central de la actividad existente. Uno de los ejemplos es un lote actualmente vacante junto a la plaza del Barrio Las Heras, el sitio ofrecerá un espacio de uso mixto que funcionaría a la par de la actividad de la plaza. Para llevar a cabo los objetivos de reforzar el carácter comunitario y la actividad económica en los barrios, las soluciones a corto plazo en estos sitios (antes de la construcción) incluyen programas como el surgimiento
sides. Imperative to the program and use of these sites is community involvement, to encourage self-sufficiency both in the short and long term.

Floor, office and studio space on the second and third stories, and subsidized live/work co-op units above.

The following steps for implementation are proposed, with specified actors:

1. Initiate program (SEREMI)
2. Define Priority Development Sites (Municipality and SERVIU)
3. Designate priority lots (SERVIU)
4. Determine community hub goals (Community)
5. Develop hub-specific design & building program guidelines (Municipality and SEREMI)
6. Initiate hub promotion activities (Community & Ministry of Internal Economic Affairs)
7. Develop priority sites (Developers and SERVIU)
8. Annual vote on CHIF-funded programs (Community)

Lot Physical Form / Forma Física del Lote
Priority and Task / Prioridades y Tareas

A variety of developer subsidies would aid in the implementation of this plan:

- A Centrality Subsidy for targeted and concentrated development. The existing location subsidy is to be streamlined with the community hub policy, giving additional subsidies for developing on community hub priority lots.
- A Readjustment Subsidy to discourage displacement. Developers are given an additional subsidy if the existing landowner is given a housing unit in the development.
- A Basic Services Subsidy to encourage self-sufficient communities. Developers receive an additional subsidy if they include one of the list of priority neighborhood services on their site.

Priority Development Site guidelines are proposed as follows:

1. All development on community hub priority sites must be mixed-use. Ground floor uses must incorporate public community spaces, as needed by each community hub through a vote. Each site must include a minimum of one floor of commercial office use. Each site must include a minimum of one floor of residential uses. For each additional floor of commercial office use, one additional floor of residential uses must be provided.
2. Program accommodating local businesses and local labor are prioritized. Former businesses destroyed by the earthquake are given first priority. Businesses on community hub priority sites must prioritize community hub resident labor.
3. All development on community hub priority sites must follow SEREMI’s hub-specific design guidelines.
4. Community Hub Improvement Fund (CHIF) All priority site owners must contribute annually to the CHIF.

Sitios de Desarrollo Prioritarios, se proponen las siguientes directrices:

1. Todo el desarrollo de sitios prioritarios comunidades centrales debe ser de uso mixto. La planta baja debe usarse principalmente para incorporar espacios públicos de la comunidad, según las necesidades de cada centro comunitario mediante votación. Cada sitio debe incluir un mínimo de una planta para uso de oficinas comerciales. Cada sitio debe incluir un mínimo de una planta para uso residencial. Por cada piso adicional de uso de oficinas comerciales, se debe proporcionar un piso adicional para uso residencial.
2. Programa de acomodo de empresas locales y prioridad a la mano de obra local. A los antiguos negocios destruidos por el terremoto se les da prioridad. Negocios en comunidades centrales de sitios prioritarios deben dar prioridad a la mano de obra de los residentes de las comunidades centrales.
3. Todo el desarrollo de las comunidades centrales de sitios prioritarios debe seguir las directrices específicas primarias de diseño de SEREMI.
4. Fondo de Mejoras de Comunidades Centrales (CHIF). Todos los propietarios de los sitios prioritarios deben contribuir anualmente al CHIF.
Mart 125 Redevelopment on Manhattan’s 125th Street is a property located in an area with a history of arts venues. The city-owned property is being redeveloped by NYCEDC (New York City Economic Development Corp.) in an effort to transform the region into a cultural and entertainment destination. Redevelopment program includes over 10,000 square feet of cultural space, 800 square feet of visitor center space, and 2500 square feet for retail and café program, with local businesses given priority for retail leases.

The project intends to incentivize the development of a regional business district, as the starting point for a larger culture and arts corridor spanning from the Harlem River to the Hudson River in Manhattan’s Upper West Side. Following 2008 rezoning measures to support such civic program, the redevelopment is being led by an advisory committee of 100 local stakeholders, which includes elected officials, community civic groups, and cultural institutions. Reference: www.nycedc.com

Mart 125 de Reurbanización en la calle 125 de Manhattan es una propiedad ubicada en una zona con una historia de salas de arte. El inmueble propiedad de la ciudad se está reconstruyendo por NYCEDC (Corporación de Desarrollo Económico de la Ciudad de Nueva York) en un esfuerzo para transformar la región en un destino cultural y de ocio. Reurbanización del programa incluye más de 10,000 pies cuadrados de espacio cultural, 800 pies cuadrados de espacio de centro de visitantes y 2,500 metros cuadrados para el programa de venta al por menor y la cafetería, con las empresas locales priorizadas para los arrendamientos comerciales.

El proyecto tiene la intención de incentivar el desarrollo de un distrito de negocios regional, como el punto de partida para un corredor grande de cultura y artes que va desde el río de Harlem hasta el río Hudson en el Upper West Side de Manhattan. Después de las medidas de rebonificación del 2008 para apoyar dicho programa cívico, la reurbanización está siendo dirigida por un comité consultivo de 100 actores locales, lo que incluye a funcionarios electos, grupos cívicos de la comunidad y las instituciones culturales. Referencia: www.nycedc.com
Business Improvement Districts (BIDs) / Business Improvement Districts (BID)

Business improvement districts (BIDs) are defined regions within which local businesses pay a fee or taxes to fund improvements within that region. New York City, for instance, has nearly 70 BIDs. One example of these, the Bryant Park BID, run by the Bryant Park Corporation (BPC), a not-for-profit company made up of neighboring property owners. This company was formed to renovate the historic park, which was in poor condition in the 1980s. In 1988, management of the public park was handed over to this private company, which renovated the park under a budget that was six times that which the city had previously operated it. The park reopened after a four-year renovation to great success. Reference: www.bryantpark.org

Distritos de Mejoramiento Comercial (BIDs) son las regiones dentro de los cuales las empresas locales pagan una cuota o impuestos para financiar mejoramientos dentro de la región definida. La ciudad de Nueva York, por ejemplo, tiene cerca de 70 BIDs. Un ejemplo de ellos, el BID de Bryant Park, gestionado por la Corporación de Bryant Park (BPC), una empresa sin fines de lucro formada por vecinos propietarios. Esta empresa se formó para renovar el parque histórico, que se encontraba en mal estado en la década de 1980. En 1988, la gestión del parque público fue entregado a la empresa privada, que renovó el parque bajo un presupuesto que era seis veces mayor que el que la ciudad había utilizado para operarlo. El parque volvió a abrir después de una renovación de cuatro años con gran éxito. Referencia: www.bryantpark.org

Massachusetts Priority Development Sites / Priority Development Sites en Massachusetts

Priority development sites in Massachusetts offers communities tools for economic development. Signed into state law, priority development site funding offers up to USD$150,000 in aids for everything from increased marketing and visibility of sites to professional staffing assistance, local government reorganization and brownfield remediation assistance. These sites in particular must be zoned for commercial or industrial development and be eligible for at least 50,000 square feet of new building. The community itself must identify the site. Reference: Massachusetts General Law Chapter 43D, www.mass.gov

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“In 1988, management of the public park was handed over to this private company, which renovated the park under a budget that was six times that which the city had previously operated it.”

“En 1988, la gestión del parque público fue entregado a la empresa privada, que renovó el parque bajo un presupuesto que era seis veces mayor que el que la ciudad había utilizado para operarlo.”
New development in the Plaza Las Heras neighborhood has introduced a profoundly different urban fabric. This new fabric is typified by two main qualities: higher density and the prioritization of automobiles. Row houses that take advantage of the long narrow lots to penetrate the inside the block and which often feature a gated driveway have proliferated throughout the community.

Many of these developments predate the earthquake and they are likely to increase as rebuilding continues. There are currently at least four examples of this typology in the Plaza Las Heras neighborhood along.

While many traditional adobe houses in the neighborhood lay vacant or damaged there has been a high demand for the new building types. However, these new development must be better integrated into the historic and social fabric of the area. A prized quality of the Plaza Las Heras neighborhood for many long time residents is its strong sense of community. While the new row house developments are very different from the neighborhood’s traditional form, there are ways that this new building typology can be integrated to maintain the strong social tradition of the community.

Car-oriented driveways should be converted into multi-modal laneways, which connect through blocks. This will open up what are now private enclaves that are both physically and socially isolated from the broader community. It will also enhance circulation for community residents and serve to turn the negative quality of the row houses into an asset.

Los nuevos desarrollos en el barrio de Plaza Las Heras han introducido profundas diferencias en el tejido urbano. Este nuevo tejido se caracteriza por dos cualidades principales: mayor densidad y priorización de los automóviles. Casas lineales que se aprovechan de los lotes estrechos y largos para penetrar en el interior del bloque y que a menudo cuentan con una vía de acceso privada, han proliferado por toda la comunidad. Muchos de estos cambios son anteriores al terremoto y son propensos a aumentar a medida que la reconstrucción continúa. Actualmente hay al menos cuatro ejemplos de esta tipología a lo largo del barrio Plaza Las Heras.

Aunque muchas casas tradicionales de adobe en el barrio se encuentran vacantes o dañadas, no ha habido una gran demanda de la nueva tipología de edificios. Sin embargo, estos nuevos desarrollos deben integrarse mejor en el tejido histórico y social de la zona. Una preciada cualidad del barrio de Plaza Las Heras para muchos residentes antiguos es su fuerte sentido de comunidad. Mientras que los nuevos desarrollos de vivienda lineal son muy diferentes a la forma tradicional de la zona, hay maneras de que esta nueva tipología de edificio pueda ser integrado para mantener la fuerte tradición social de la comunidad.

Los accesos vehiculares deben convertirse en calles con multitudinal conectados a través de los bloques. Esto abrirá lo que ahora son enclaves privados que son aislados físicamente y socialmente de la comunidad en general. También mejorará la circulación de los residentes de la comunidad y servirá para transformar la calidad negativa de las viviendas lineales en un activo.
In order to create the laneways a new municipal regulation should be enacted banning the construction of private driveways for new developments. These features not only sever new developments from the rest of the community but are largely single purpose, accommodating automobiles. The fact that these driveways have one entrance channels large amounts of traffic onto neighborhood streets and diminishes the pedestrian environment.

Laneways are also an opportunity to promote green infrastructure and introduce a new means of connectivity into the neighborhood. The existing blocks in the neighborhood are relatively large with dimensions of 400 feet by 400 feet. Laneways will break up the block into smaller dimensions creating more connectivity. Green elements, such as permeable paving and plants can also be introduce to the laneways to treat and capture storm water run off.

Laneways will also allow new development and different typologies to be introduced, without disrupting its historic fabric. The laneways will open new development opportunities to existing residents to build accessory units or sell their parcels, or a portion thereof, to developers.

Targeting additional density will take development pressure off of existing street.

Con el fin de crear callejones se debe promulgar una nueva regulación municipal que prohíba la construcción de accesos vehiculares privados en los nuevos desarrollos. Estas características no sólo aíslan a los nuevos desarrollos del resto de la comunidad, sino que sirven a un simple propósito, el acomodo de automóviles. El hecho es que estos accesos vehiculares tienen un solo canal de entrada para un gran flujo vehicular a las calles del barrio y disminuye el entorno peatonal.

Los callejones son también una oportunidad para promover la infraestructura verde e introducir nuevas formas de conectividad en el barrio. Los bloques existentes en la zona son relativamente grandes, con dimensiones de 400 por 400 pies. Los callejones romperán el bloque en dimensiones más pequeñas creando una mayor conectividad. Tanto los elementos verdes, como pavimentación y plantas pueden ser introducidos también en los callejones para tratar de capturar el agua de lluvia.

Los callejones también permitirán la introducción de nuevos desarrollos y las diferentes tipologías, sin alterar su estructura histórica. Los callejones abrirán nuevas oportunidades de desarrollo para los residentes existentes para construir unidades auxiliares o vender sus parcelas o parte de ellas a los desarrolladores. El enfoque a la densidad adicional tendrá la presión del desarrollo fuera de
where it could disrupt the historic character of the neighborhood. Introducing varying housing typology will allow a range of demographics to live in the neighborhood, such as families, the elderly, and students. The laneways scheme will incorporate an inclusive planning process to both strengthen the community and build ownership over the new pathways. The earthquake created vast physical as well as social disruption.

Longtime residents were displaced and many neighborhood institutions have yet to reopen. This has been paired with an infusion of new residents who have moved into the many new developments. An inclusive planning process will be an opportunity to strengthen the community and allow residents to envision what they would like the Plaza Las Heras neighborhood to look like in the future.

A community visioning session should be held in Plaza Las Heras to plan the laneways. This will be an opportunity for new and old residents to come together and meet each other for the first time.

Residents will be able to share memories of how the neighborhood was and how they would like it to be in the future. To ensure broad participation in the process, an outreach strategy should capitalize on current residents as well as community organizations to reach out to neighbors and encourage their participation. The community as a whole can decide where the laneways should go and what their general layout should be, such as pedestrians and bikes only, multi-modal etc. on the block level residents can plan various aspects of the path, such as vegetation, artwork, paving etc. This will create a coherency to the paths for the neighborhood as a whole while personalizing them at the hyper-local level. Community residents can further be involved in the process through constructing the paths and planting vegetation. Community participation can also be sustained in the long term through periodic maintenance days for the path.
The city of Chicago has instituted a program to put permeable paving in the city’s large amount of service alleys running in the middle of blocks. Instead of impermeable concrete paving, semi-permeable materials, such as bricks or stones, are used, allowing storms and snow runoff to be captured and purified on site instead of carrying pollutants to nearby water bodies. This paving also has an aesthetic benefit because it can have a green appearance by way of grass that grows between the stones or bricks.

La ciudad de Chicago ha establecido un programa para poner pavimentos permeables en la cantidad grande de la ciudad de callejones de servicios que se ejecutan en el centro de bloques. En vez de pavimento de hormigón impermeable, materiales semipermeables, como ladrillos o piedras, se utilizan, permitiendo que las tormentas de nieve y la escorrentía se captureden en el sitio en lugar de llevar la contaminación a cuerpos de agua cercanos. Este pavimento también tiene un beneficio estético, ya que puede tener una apariencia de color verde a modo de hierba que crece entre las piedras o ladrillos.
The state of Virginia passes a ban on non-connective streets in 2009. New developments in the state are required to have a certain level of connectivity, which, if a developer does not satisfy, revokes inclusion in local service provisions such as snow plowing. Streets in new developments must be through-streets, with more than one entrance, and no dead ends. Local streets also must be narrower, ranging from 24 to 29 feet, as opposed to the previously allowed 40 feet. The bill as a response to traffic congestion resulting from non-connective streets in subdivisions that let out large amounts of traffic onto busy roads. In addition the bills saves local municipalities a significant amount of money on road maintenance.

The Green Factor program applies to new commercial and multifamily housing development in Seattle. Developers are given points for including features such as large plants, permeable paving, green roofs, vegetated walls, and layering vegetation along streets and other areas visible to the public into their developments. Buildings can score additional points through providing areas for food cultivation, using native and drought-tolerant plants, and rainwater harvesting. In order to be granted a building permit, developers must score a certain amount of Green Factor points, dependent on the building’s use.

The coastal Chilean City of Constitucion was badly damaged by the 2010 earthquake and ensuing tsunami. In the aftermath, Santiago-based architecture firm Elemental was commissioned to create a Reconstruc-
The city of Sydney, Australia initiated a revitalization program to transform the city’s large system of laneways in their central business district into vibrant, new community focal points. Large-scale capital improvements were conducted such as lighting, paving, providing additional space for outdoor dining, as well as traffic calming measures. Other improvements included encouraging permanent and temporary art installations.

La ciudad de Sydney, Australia inició un programa de revitalización para transformar el sistema grande de la ciudad de callejuelas en su distrito central de negocios en nuevos centros comunitarios de coordinación vibrantes. Los mejoramientos de la capital de grande escala se llevaron a cabo, como la iluminación, pavimentación, proporcionar espacio adicional para comer al aire libre, así como medidas de pacificación del tráfico. Otros mejoramientos incluyen las instalaciones artísticas permanentes y temporales alentadoras.
The earthquake had an immediate effect on the historic adobe structures of Talca: many were badly damaged, some to the point of being uninhabitable. This damage has resulted in a context of real estate pressure, demolition, and replacement of historical structures that is fundamentally changing the spatial character of neighborhoods. Some of the new typologies are increasing density without disrupting the neighborhood’s fabric. These new developments, along with features from historic structures, could be used to develop design and spatial layout features that help to reestablish Talca’s identity for the future.

El terremoto tuvo un efecto inmediato en las estructuras históricas de adobe de Talca: muchas fueron gravemente dañadas, algunas hasta el punto de ser inhabitable. Este daño se ha traducido en un contexto de presión inmobiliaria, demolición y reemplazo de las estructuras históricas que están fundamentalmente cambiando el carácter espacial de los barrios. Algunas de las nuevas tipologías están aumentando la densidad sin interrumpir la estructura del barrio. Estos nuevos desarrollos, junto con las características de las estructuras históricas, se podrían utilizar para desarrollar las características de diseño y distribución espacial que ayudan a restablecer la identidad de Talca en el futuro.

At the neighborhood level, this project seeks to preserve the existing historic fabric of buildings and layout while still allowing for new development to blend in. The undamaged historic adobe structures currently in Barrio Las Heras would be preserved, and new development would either incorporate existing facades and structures on unaffected lots, or incorporate a percentage of design features that are consistent with Talca’s building typology and character. In addition, urban spatial design features such as interior courtyard would be encouraged. This neighborhood preservation strategy serves to strengthen and promote Talca’s character within the current context of growth.

A nivel de barrio, este proyecto busca preservar la estructura histórica existente de edificios y distribución al tiempo que permite nuevos desarrollos para mezclarse. Las estructuras históricas de adobe en buen estado actuales en Barrio Las Heras serían preservadas, y el nuevo desarrollo sería incorporado a las fachadas y estructuras existentes en los lotes no afectados, o incorporar un porcentaje de características de diseño consistentes con tipología de construcción y el carácter de Talca. Además, se fomentan las características urbanas de diseño espacial como el patio interior. Esta estrategia de preservación del barrio sirve para fortalecer y promover el carácter de Talca, en el contexto actual de crecimiento.

As an intervention at the neighborhood level, this proposal would reestablish Plaza Las Heras as the bub of Barrio Las Heras, preserving its historical centrality, activity, and use as a vibrant public space. To carry out the goal of complimentary preservation and growth, short and long term policies, incentives, and guidelines

Como una intervención a nivel de barrio, esta propuesta restablecerá tanto la Plaza como la vida del Barrio Las Heras, conservando su centralidad histórica, la actividad, y uso como un vibrante espacio público. Para cumplir con el objetivo de complementar la preservación y el crecimiento, las políticas a corto y largo plazo, los incentivos y las directrices
would be undertaken to guide reconstruction and new growth, with particular attention to historic neighborhood features. Three strategies would be employed as initial steps toward this goal:

1. Formalizing the “Fachada Continua” program that is already in existence
2. Repurposing existing adobe facades of structures that are still standing and incorporating them into higher density and newer typologies
3. Defining architectural elements to be preserved at an incremental scale throughout the neighborhood.
4. In order to reestablish the historical centrality of the plaza and define a currently nonexistent framework of preservation, three phases of guidelines, incentive policies, and regulations would be employed.

se llevarán a cabo para orientar la reconstrucción y el nuevo crecimiento, con especial atención a las características del barrio histórico. Tres estrategias se pueden emplear como pasos iniciales hacia esta meta:

1. La formalización de la “Fachada Continua”, programa que ya existe
2. Reutilización de fachadas de adobe existentes de estructuras que siguen en pie e incorporarlas en una mayor densidad y nuevas tipologías.
3. La definición de los elementos arquitectónicos que se conservan en una escala gradual en todo el barrio.
4. Con el fin de restablecer la centralidad histórica de la plaza y definir un marco de conservación actualmente inexistente, se emplearon tres fases de directrices, políticas de incentivos y regulaciones.
Guidelines:
- Establishing partnerships with local actors (municipality, universities, community groups, non-profits) to undertake programming and reconstruction efforts
- Accessing international funding source for historic preservation
- Delineating historic preservation guidelines for the neighborhood with a community visioning process
- Undertaking branded and/or casual programming in the plaza
- Introducing temporary uses or rental of vacant spaces in the neighborhood, such as farmer’s markets and an outdoor cinema
- Creating a design competition for reconstruction involving both historic and modern typologies (collaborating with architecture students)

Regulations:
- Mandated long term institutional collaborations and projects with other city actors and agencies
- Building code regulations for reconstruction in adobe
- Regulations for a minimum among of historically appropriate features in new construction
- Regulations for earthquake mitigation at the neighborhoods level
- Establishment of Zona Tipica designation for the city of Talca

Incentives:
- Subsidies for reconstruction and/or additions incorporation of minimum percentage of designated preservation design features
- Subsidies for creation of incremental accessory units at affordable rates or for renters
- Incentives for developer-led construction and/or additions incorporating certain features
- Project-based grants for individual and community preservation projects

Directrices:
- Establecer alianzas con los actores locales (municipios, universidades, grupos comunitarios, organizaciones no lucrativas) para llevar a cabo las actividades de programación y reconstrucción
- Acceder a fuentes de financiamiento internacional para la preservación histórica
- Delinear pautas de conservación histórica para el barrio con un proceso de visión comunitaria
- Realización de marca y/o programación informal en la plaza
- La introducción de usos temporales o alquiler de espacios vacantes en el barrio, como los mercados de agricultores y un cine al aire libre
- Creación de un concurso de ideas para la reconstrucción que implique tanto tipologías históricas como modernas (en colaboración con estudiantes de arquitectura)

Reglamento:
- Colaboraciones obligatorias institucionales a largo plazo y proyectos con otros actores y agentes de la ciudad
- Reglamento para el código de construcción enfocado a la reconstrucción en adobe
- Reglamento para un mínimo entre características históricamente adecuadas en las nuevas construcciones
- Reglamento para la mitigación del terremoto a nivel de barrios
- Establecimiento de la Zona Típica designada para la ciudad de Talca

Incentivos:
- Los subsidios para la reconstrucción y/o adiciones con incorporación de un porcentaje mínimo de características de diseño designadas para la preservación
- Subvenciones para la creación de unidades accesorias adicionales a precios accesibles o para inquilinos
- Incentivos para desarrolladores que lideren la construcción y/o adiciones que incorporen ciertas características
- Subvenciones basadas en apoyos para proyectos de preservación individuales o comunitarios
Although the context for historic preservation in Chile is not strong outside of wealthy historic barrios in Santiago, there are cases that resemble Talca more closely. The city of Chanco, Cauquenes Province in the region of Maule, is one that is particularly relevant. Chanco was given a “Zona Típica” designation by the national Department of Historic Monuments in 1999 due to its neo-colonial style. Like Talca, many of its structures are constructed in historic adobe building techniques. The rationale for this designation included the existence of “one-floor colonial houses with continuous façade and corridors that create a strong urban identity and continuity.” Building details included “a variety of windows, doors and gates with elaborate details and proportions, columns, lintels, and windowsills with exemplary carpentry, an interesting treatment of corners, rustic roofs, and wooden pillars of great architectural value.” The street layout and character of Chanco’s neighborhoods and spatial plan also played a key part in this designation, with reference to its traditional street network, identity as a former fishing village, and potential to draw tourists and visitors from other parts of Chile.

Aunque el contexto de la preservación histórica en Chile no es fuerte fuera de los barrios históricos ricos en Santiago, hay casos que se parecen más a Talca. La ciudad de Chanco, Cauquenes Provine en la región del Maule, es una que es particularmente relevante. Chanco recibió una designación de “Zona Típica” por el Departamento de Monumentos Históricos Nacionales en 1999 debido a su estilo neo-colonial. Como Talca, muchas de sus estructuras se construyen en el histórico técnicas de construcción de adobe. La razón de esta denominación incluye la existencia de “casas coloniales de una sola planta con fachada y pasillos que crean una fuerte identidad urbana y la continuidad continuo.” Los detalles del edificio incluyeron “una variedad de ventanas, puertas y puertas con detalles y proporciones elaboradas, columnas, dinteles y marcos de las ventanas con carpintería de ejemplar, un interesante tratamiento de esquinas, techos rústicos y pilares de madera de gran valor arquitectónico.” El trazado de las calles y el carácter de los barrios de Chanco y el plan espacial también jugaron un papel clave en esta designación, con referencia a su red tradicional de la calle, la identidad como un antiguo pueblo de pescadores y el potencial para atraer a los turistas y visitantes de otras partes de Chile.
On February 27, 2010, the sixth largest earthquake in world history wreaked havoc on Chile, affecting 12.8 million people. Talca lies less than 100 kilometers from the epicenter of the 8.8 magnitude earthquake, and the city was severely damaged; a year after the quake, the municipality of Talca declared nearly 11 thousand homes uninhabitable.

El 27 de febrero de 2010, el sexto terremoto más grande en la historia mundial causó estragos en Chile, afectando a 12.8 millones de personas. Talca se encontraba a menos de 100 kilómetros del epicentro del sismo de magnitud 8.8, y la ciudad fue severamente dañada; un año después del terremoto, la Municipalidad de Talca declaró cerca de 11,000 viviendas inhabilitables.
These three goals have elements that can be implemented in both the short- and long-term. To achieve the goal of community development, vacant lots can immediately be utilized for pop-up events or other uses while they wait to be developed for a higher use. For the laneways scheme, gates can be taken down in the short term and measures can be taken to broaden the use of the driveways to other modes, through striping the driveway for bikes or changing the paving. For the preservation goal, historic buildings can be cataloged and flagged for preservation. On severely damaged buildings, cosmetic improvements can be made to restore their exterior while financing becomes available to fully restore the structure.

Scale / Escala

The goals of community development, multi-modal connectivity, and historic preservation work on the three scales: the lot, block, and neighborhood. However, they have interlocking elements that, when combined, create a comprehensive redevelopment plan for the community. The laneway and community development plan work in tandem to bring growth to the community in ways that respect both the social and built fabric of the community. The preservation plan restores the character of the neighborhood, while not hindering the other two goals from bringing growth and development to the community.

Replicability / Replicabilidad

Though unique socially, the urban pattern of the Plaza Las Heras neighborhood is typical of many mid-sized Chilean cities. The plaza, and grid pattern are common features throughout the country. In turn, the...
The three goals view the rebuilding of Talca as a social as well as physical challenge. The earthquake not only destroyed buildings but also fractured community ties through displacing residents. The vision we propose for Talca’s future offers a ways to rebuild community fabric by providing physical spaces for new and old residents to come together. Planning for the process should be the first step in rebuilding the neighborhood through allowing residents to articulate a vision for how the community should grow. New development should not hinder community interaction but facilitate it. The plans that we have proposed rely on the residents of the community to populate them, alter them, and ultimately make them successful.

rapid development that has taken place in Talca can be found in other locations. For the reason, and their adaptability to various scales and time-frames, elements of the tree goals can be replicated, both individually and in tandem, in other areas of the city as well as in similar cities around the country.

People / Personas

The three goals view the rebuilding of Talca as a social as well as physical challenge. The earthquake not only destroyed buildings but also fractured community ties through displacing residents. The vision we propose for Talca’s future offers a ways to rebuild community fabric by providing physical spaces for new and old residents to come together. Planning for the process should be the first step in rebuilding the neighborhood through allowing residents to articulate a vision for how the community should grow. New development should not hinder community interaction but facilitate it. The plans that we have proposed rely on the residents of the community to populate them, alter them, and ultimately make them successful.

Los tres objetivos contemplan la reconstrucción de Talca como un reto tanto social como físico. El terremoto no sólo destruyó edificios, sino también fracturó los vínculos comunitarios mediante el desplazamiento de residentes. La visión que proponemos para el futuro de Talca ofrece una forma de reconstruir el tejido comunitario, proporcionando espacios físicos para que se unan los nuevos y viejos residentes. La planificación para el proceso debe ser el primer paso en la reconstrucción del barrio, permitiendo a los residentes articular una visión de cómo debería crecer la comunidad. El nuevo desarrollo no debería obstaculizar la interacción comunitaria, sino facilitarla. Los planes que hemos propuesto se basan en los residentes de la comunidad para llenarlos, alterarlos, y en última instancia que tengan éxito.
The Community Land Trust (CLT) is a housing model meant to preserve lasting affordability and prevent foreclosure, wherein a nonprofit corporation acquires and manages land on behalf of the residents of a community.

In the US, housing is commonly provided by means of a series of steps. First, vacant or suitable land parcels are identified (publicly-owned or bank-owned lands are easily suited to become part of a CLT). The CLT then purchases the land parcels, and delivers both these land parcels and the buildings constructed on them to residents, through a long-term lease or below-market-rate sale. Land is kept affordable indefinitely through an agreement that owners will resell their homes to the CLT in the future at a fixed percentage of market rate. A 30% cap on resale value, for instance, ensures that

American CLT examples:
• Champlain Housing Trust
• Dudley Street Neighbors
• Madison Area CLT

UK CLT examples:
• East Ashington Development Trust
• East London CLT
• St. Minver CLT
• Brixton Green CLT
• Cashes Green CLT

El Fideicomiso Comunitario de Terrenos (CLT) es un modelo de vivienda destinado a preservar la rentabilidad duradera y evitar el juicio hipotecario, en el que una corporación no lucrativa adquiere y gestiona las tierras en nombre de los residentes de una comunidad.

En los Estados Unidos, la vivienda está comúnmente provista por medio de una serie de pasos. En primer lugar, se identifican las parcelas vacantes o adecuada (de propiedad pública o terrenos de propiedad del fácilmente forman parte de un CLT). El CLT adquiere entonces las parcelas, y ofrece a los residentes estos dos lotes del terreno y los edificios construidos en ellos, a través de un contrato de arrendamiento a largo plazo o una venta por debajo del precio de mercado. La tierra se permanece accesible indefinidamente mediante un acuerdo en que los propietarios revenderán sus hogares al CLT en el futuro, a un porcentaje fijo del precio de mercado. Un 30% del límite de
residents benefit from rising home values, while retaining the price of the home as accessible to future low-income buyers.

The following factors are common to all CLTs:
- Land is treated as a common heritage and a shared asset.
- Ownership of land is separated from home ownership.
- Homes are privately owned, land is community-owned.
- The CLT retains ownership of the land, and leases the land to the landowner.

History and Present / Historia y Presente

The movements that influenced the formation of CLTs are a reaction to, and a criticism of, the treatment of land as individually-owned property. Henry George, an American writer and political economist active in the late 19th century, shared the ancient belief that everything found in nature belongs equally to all humanity. He proposed a radical reform of British land-owning laws, known as the Single Tax. He proposed that land should be commonly held, and that a single tax (the rent for the structures used) should be paid annually.

There were a number of early precursors to CLTs. Single Tax communities in England, for instance, were founded under George’s teachings. Later, Ebenezer Howard’s Garden value of reventa, por ejemplo, asegura que los residentes se benefician del aumento de valor de las viviendas, manteniendo su precio más accesible a los futuros compradores de bajos ingresos.

Los siguientes factores son comunes a todos los CLT:
- La tierra es tratada como un patrimonio común y un bien compartido.
- La propiedad de la tierra está separada de la casa propia.
- Las casas son de propiedad privada, la tierra es propiedad de la comunidad.
- El CLT se reserva la propiedad de la tierra, y alquila la tierra al propietario.

Hubo una serie de precursores iniciales de CLT. Un impuesto único en las comunidades de Inglaterra, por ejemplo, se fundó bajo las enseñanzas de George. Más tarde, el concepto de la
City concept resulted in a range of establishments including Welwyn Garden City and Letchworth, both in England, and which echoed George’s ideas for separating land use from land ownership. In India, Gramdan Villages sprung up following mid-century land reforms that resulted in entire villages of community-owned land gifted by wealthy landowners to low-income residents.

The first examples of modern CLTs were founded in the American South, such as Koinonia Farm in Georgia. These communities spawned from the ideals of the Civil Rights Movement, and the CLT organizational model was established to offer home ownership to poor African Americans previously restricted from it. Today, CLTs are found throughout the United States, and in different stages of development around the world. The CLT land model has been growing rapidly with the support of the nationwide Community Land Trust Network.

Why do people start a CLT? What kinds of housing problems are they trying to solve? Common problems that may be ameliorated through the CLT model include:

- Disinvestment in low-income communities
- Gentrification pressures (rising property values pricing local residents out of their own communities)
- Displacement due to development projects in the neighborhood
- Redevelopment challenges posed by natural disasters

In many countries across the world, rising unaffordability is a key factor leading to the creation of CLTs. In Australia for instance, the average price for a home in large cities is now equal to over 7 times the median salary in those cities. Because of this, over 60% of home sales in Australia are inaccessible to the median young household. Housing affordability issues in this
country has stemmed a need for better housing solutions, and CLTs have been gaining popularity in recent years.

Creating a CLT / Creación de un CLT

There are a number of prerequisites to establishing a CLT. First and foremost, CLTs need sponsor organizations. Community organizing can take this role, and gives citizen-participants a strong stake in the future of their neighborhood. Existing groups or partnerships – like neighborhood organizations or community development groups, can also sponsor CLTs. Municipal governments are seeking to sponsor CLTs, particularly in the United States, as a way to create more affordable housing.

The CLT also requires a governance model. CLTs are commonly governed by a Board of Directors, made up of community residents, business owners, and local experts. Also, it can be governed by a community voting model, where town-hall-type meetings give each community member one vote towards their preference.

In this country has stemmed a need for better housing solutions, and CLTs have been gaining popularity in recent years.

Hay una serie de requisitos previos para el establecimiento de un CLT. En primer lugar, el CLT necesita el patrocinio de organizaciones. La organización comunitaria puede tener este papel, y les da a los ciudadanos participantes un fuerte interés en el futuro de su barrio. Grupos o asociaciones existentes como organizaciones vecinales o grupos de desarrollo comunitario, también pueden patrocinar al CLT. Los gobiernos municipales están tratando de patrocinio al CLT, particularmente en los Estados Unidos, como una manera de crear más viviendas accesibles.

El CLT también requiere un modelo de gobierno. El CLT comúnmente se rige por un Consejo Administrativo, compuesto por residentes de la comunidad, empresarios y expertos locales. También, puede ser gobernado por un modelo de votación de la comunidad, donde las reuniones de tipo Ayuntamiento dan a cada miembro de la comunidad un voto a quien prefieran.
The trust has to determine its organizational limitations. CLTs are generally limited to land management: they purchase, steward and lease the land. Affordable Housing Trusts manage the land and also oversee its development, sales and maintenance.

The CLT also has to determine its spatial and demographics limits. Will it serve the residents of the entire town? A single neighborhood? Will it restrict service to certain income levels? Will it choose alternative characteristics to restrict on? When it comes time to build, the CLT has to choose what type of structures to develop. This will be based on community current conditions as well as future needs. The three main choices are: single-family homes, multi-family units (for example, apartment buildings), or co-housing units. These are multi-family units that include shared community facilities, for example a kitchen or a common area.

Among the most important choices the new CLT needs to make is the choice of what funding structure it will take. Common funding needs for a CLT include the initial land purchase, staffing costs, and operating expenses. Funding sources include: gifts, grants, charitable donations, low-interest loans, matching funds from municipal partners, and self-funding options, like agricultural revenues or sales of self-generated sustainable energy.

Case Studies / Casos de Estudio

The CLT has proven to be a resilient model for affordable housing. It is adaptable to many different scales, political structures, legal environments, and communities. The following case studies of CLTs were established in a variety of locations, with a range of forms taken and services provided. Factors considered for comparison include: level of density (urban or rural); unit types offered (single-family homes or multi-family units);
stage of development; organizational strategy; legal capacity (the power of eminent domain, for instance); means of funding; incorporation of a self-building requirement; support by a regional Umbrella CLT organization; sustainability measures; inclusion of community programs, services, or amenities; and level of local government support.

Eight CLTs – three in the United States and five in the United Kingdom – are compared, and the following assumptions are derived:

1. CLTs are a tool for both rural and urban housing.
2. It can be a useful tool for community organization and decision-making, though can also be efficiently run by a trusted board of directors.
3. All CLTs that are incorporated have received some form of public spending. It’s possible to fund a CLT without public money, but it’s rarely been done.
4. Most CLTs are constructed by private development companies in partnership with the non-profits.
5. All CLTs go farther than just providing housing.
6. Almost all CLTs have strong support from their local and regional governments.

Four of these examples in particular speak well to the problems that Talca, Chile is facing, as solutions to remedy the rise in local housing prices and construction, and the con-
control of these markets by private developers:

St. Minver CLT was founded in 2006, in a wealthy seaside village on the west coast of England. This village, Rock, is home to some of England’s most expensive real estate. Rising prices are creating problems for middle- and low-income residents. This village is responding to gentrification and found it needed a new way to provide housing that is affordable for its low and middle-income residents. It’s currently under construction, with the unique requirement that homeowners contribute a significant portion of their own time to the construction of this house. St Minver CLT was supported heavily by Cornwall CLT, a regional organization that links CLTs with resources and funding. They’ve been successful at combating rising home prices.

The Champlain Housing Trust was founded in 1984 by the City of Burlington, in the United States, to create more affordable housing for its residents. It serves the City of Burlington and 39 surrounding towns, more than 200,000 people. It owns and manages homes for over 2,100 households. Its non-housing assets include repair loans, social services, and financial services. Key to its growth and success – it’s the oldest CLT in the US, and among the largest – has been strong City and State support.

Dudley Neighbors, Inc. was founded in 1988 by the Dudley Street Neighborhood Initiative, a community group unhappy with the number of vacant lots and deteriorating homes in its neighborhood. Dudley Neighbors, since 1988, has constructed over 400 units of housing on formerly vacant lots. It is distinctive in that the City of Boston granted it the power of eminent domain to take vacant land from their owners and construct affordable housing, to be owned by the group. It has a wide range of non-housing assets, including community centers, a public school, community gardens, and open space improvement projects. It locales de vivienda y construcción, y el control de estos mercados por los promotores privados:

St. Minver CLT fue fundada en 2006, en un pueblo costero rico en la costa oeste de Inglaterra. Este pueblo, Rock, es el hogar de algunos de los inmuebles más caros de Inglaterra. El aumento de precios está creando problemas para los residentes de bajos y medios ingresos. Este pueblo está respondiendo a la gentrificación y descubrió que necesitaba una nueva forma de proporcionar una vivienda accesible para los residentes de ingresos bajos y medios. Está actualmente en construcción, con el único requisito de que los propietarios de viviendas contribuyan con una porción significativa de su propio tiempo para la construcción de esta casa. St Minver CLT fue apoyada en gran medida por Cornwall CLT, una organización regional que vincula los CLT a recursos y financiamiento. Han sido exitosos en la lucha contra el aumento en los precios de la vivienda.

El Champlain Housing Trust fue fundado en 1984 por la ciudad de Burlington, en los Estados Unidos, para crear más viviendas accesibles para sus residentes. Sirve a la ciudad de Burlington y 39 pueblos de los alrededores, con más de 200,000 personas. Posee y gestiona viviendas para más de 2,100 hogares. Sus activos no vinculados a la vivienda incluyen préstamos de reparación, servicios sociales y servicios financieros. La clave de su crecimiento y éxito - es el CLT más antiguo de los Estados Unidos, y uno de los más grandes - ha sido el fortalecimiento de la ciudad y el apoyo del Estado.

Vecinos Dudley, Inc. fue fundado en 1988 por la iniciativa del Barrio Calle Dudley, un grupo comunitario satisfecho con la cantidad de terrenos baldíos y el deterioro de casas en su vecindario. Vecinos Dudley, desde 1988, ha construido más de 400 unidades habitacionales en lotes baldíos. Se distingue ya que la ciudad de Boston le otorgó el poder de dominio eminente para tomar terrenos vacantes de sus propietarios para construir viviendas accesibles, de propiedad comunitaria. Cuenta con una amplia gama de activos no relacionados con la vivienda, incluidos los centros comunitarios, una escuela pública, jardines comunitarios y
owes a great deal of its success to high levels of city government support as well as its many partners in the non-profit sector. The East London CLT was founded in early 2012 by the London community organizing group CITIZENS in response to rising housing prices in the East End of London, as well as the threat of future gentrification due to the 2012 Olympic Games. It plans to build affordable housing on the site of a former hospital. It is led by a group of more than a thousand voting shareholders who have final decision-making power, and have access to the development and organizing knowledge of their supporting Board of Directors, who are not the decision-making authority. It is seeking to include housing that is affordable to those Londoners who find traditional affordable housing too expensive. It is formed by an innovative partnership with a development group that provides affordable housing on the site.
Introduction / Introducción

Land readjustment is a tool that is used when the existing division of land is not appropriate, preventing the land from being put to its highest and best use. Land readjustment can be either compulsory or voluntary, and is essentially the pooling of existing parcels, and the redistribution of this pooled land to the original landowners in a form that allows more appropriate development. In addition, typically a portion of the redeveloped land is retained by the municipality or the land readjustment agency for constructing infrastructure and basic services to serve the newly redistributed parcels. While the readjusted lots that the landowners receive are usually smaller than their former lots, the added value of the increased infrastructure and public amenities raise the value of the lots.

General Process of Land Readjustment / General Process of Land Readjustment

1. Irregularly-shaped parcels are located along smaller roads. Some of the lots do not have access to the roads, and the small roads may not be large enough to accommodate emergency vehicles should they be needed.
2. To better serve the residents and the community, the municipality wants to create more access by building a road, which would essentially run through the existing properties. Rather than using eminent domain and taking the properties in exchange for monetary compensation,
3. The lots are “readjusted” to accommodate the new road, and each of the landowners is given a new parcel, of relatively equal value to their former property. The land readjustment model therefore allows new infrastructure to be built and for land to be put to its highest and best use, without displacing current residents.
4. Land readjustment is not a new concept, and it has taken many forms throughout
the world. It is sometimes called “land consolidation” or “land rearrangement,” and is often similar to or shares commonalities with the planning tools of eminent domain, urban growth boundary strategies, value capture, and land banking. There are a diverse range of land readjustment case studies to draw from. Four case studies that are particularly relevant to Chile have been selected, where there are strong legal protections of property rights and minimal government interference in land development. The first case study, in Germany, as a contrast, land readjustment legislation is written into the country’s land use law, but the actual process of land readjustment can be done voluntarily, initiated by groups of landowners. In Japan, land readjustment is used to encourage densification and discourage sprawl. In Hong Kong is a developer-led application of land readjustment in a city with no land readjustment law, and finally, in a more geographically proximate case study, land readjustment is used as a tool for urban renewal in Colombia.
Case Study Germany / Caso de Estudio Alemania

Mr. Rainer Müller-Jökel, Head of the Department of Land Readjustment, in Germany summarizes that land readjustment is, “an excellent tool for ecological, economic and social land management as an essential part of sustainable urban development.” World War II left a scar down the middle of Germany, creating a very different economic and urban lifestyle between the west and east. Disparate unemployment rates were reflected in building conditions. In East Germany one million flats were vacant and in poor condition, people migrated to the west in search of work agitating social problems and bringing about conversations to demolish entire residential settlements. Germany needed a way to redistribute property and centralize cities and towns that had become distressed.

The idea of land readjustment came about as a way to fairly rearrange land so that it better serves the public. In the case of not enough land being available settlements such as money, property outside the project area or joint ownership of a plot may be granted. However, participation of landowners is a key component and in most cases everyone comes out of the arrangement satisfied. Landowners are encouraged to be very involved in the process and recommend their ideas. Commissions, formally called Land Readjustment Boards, are established to oversee the process. This board contains a jurist, a land surveyor, a land evaluator, and two members of local parliament. Despite some friction against land readjustment, cases brought to court have proved the process of land readjustment to be within the legal right of the government.

There is a five part process for land readjustment in Germany. The first is commenced of land readjustment in which the area for readjustment is defined, all current land uses are frozen and the rights of the land are transferred. Properties are mapped out and landowners are listed. There is a note made about property and centralize cities and towns that had become distressed.
in the land register that land readjustment has begun. The second phase is the preparation for land readjustment. All of the properties are merged into one bulk of land and the value of the bulk of the land is assessed. Land is designated for public use and then the standard for redistribution and current value is determined and an amount of land for each owner is decided upon. The third phase is value capture and reallocation. A value is set for readjustment gain considering the present and proposed uses of the land. New plots of land are allocated to owners and compensation is determined. The fourth phase is when a formal readjustment plan is issued. The rights and obligations of each party are determined, new properties boundaries are mapped, legal remedies are available to all parties and a public notice is issued. The fifth phase is the implementation of the readjustment plan. The readjustment plan is formally filed with the land register and the implementation is monitored legally and physically.

Land readjustment has been a very successful tool in Germany. The concept of relative size vs. relative value is an important one to study in relation to how land can increase in value after the addition of public amenities. In Germany, land readjustment is a perfect blend of law, real estate appraisal, and land surveying.

Case Study Japan / Caso de Estudio Japón

Land readjustment in Japan depends on cultural values and values that there is among involved parties. Therefore, land readjustment has continued to be important in Japan because local government had few other alternatives of achieving basic infrastructure in areas of urban growth.

Other factors may have encouraged the widespread use of land readjustment in Japan. Firstly, after the WWII, the land reform broke virtually all-large landholdings and redistributed the land to the former tenants thereby creat-

etarios. Hay una nota hecha en catastro indicando el inicio del reajuste territorial. La segunda fase es preparar la reparcelación. Todas las propiedades se fusionan en una sección territorial y el valor de la mayor parte de la tierra se evalúa. La tierra es designada para uso público y luego se determina un estándar para la redistribución, el valor actual y la cantidad de tierra designada a cada propietario. La tercera fase es la recuperación de plusvalías y reasignaciones. El valor se establece con base en el reajuste, teniendo en cuenta los usos actuales y propuestos de la tierra. Nuevas parcelas se asignan a los propietarios y se determina la indemnización. La cuarta fase es cuando se emite un plan de ajuste formal. Se determinan los derechos y obligaciones de cada parte, se trazan los límites de las nuevas propiedades, se asignan los recursos legales disponibles para todas las partes y se emite un aviso público. La quinta fase es la implementación del plan de reajuste. El plan de ajuste es formalmente archivado junto con el registro de la propiedad y la aplicación es monitoreada legal y físicamente.

El reajuste territorial ha sido una herramienta muy exitosa en Alemania. El concepto de importancia relativa frente al valor relativo es muy importante para el estudio en relación a cómo la tierra puede aumentar en valor después de la adición de los servicios públicos. En Alemania, el reajuste territorial es una mezcla perfecta de la ley, valoración de inmuebles, y agrimensura.
ing highly fragmented patterns of land ownership. The second cause is that a key challenge for Japanese urban planning throughout the 20th century was to gain ownership of land for public use, particularly for roads, parks, schools, and other public facilities due to the small proportion of rural land in public. Most municipalities have been financially unable to buy the enormous amount of land needed for public facilities. Land readjustment has caused people to sue because it requires that participating landowners contribute about one-third of their land for public uses and for sale. The third factor is that there is are extremely strong land ownership rights which are part of cultural legacy.

In order to counterattack this, the Japanese government in the past has expropriated land to assemble large plots for land development providing generous compensation. Here, the use of land readjustment is the only way to ensure adequate basic infrastructure at a reasonable cost.

The fourth cause could be persuasion. Land readjustment projects in 1959 allowed local government to initiate land readjustment directly, without the consent of landowners, when important planning goals were at stake. Indeed, the entire history of postwar Japanese city planning can be told from the perspective of attempts to make organization land readjustment projects easier, more applicable in such circumstances as inner-city redevelopment, and more attractive to landowners by responding to their concerns, such as by leaving some land for farming.

One policy that wide the use of land readjustment was achieved through the use of the flexible senbiki law in 1980. This law allowed the ministry of construction to start designating between urbanization promotion area (UPA) and urbanization controlled area (UCA) where land development was not to be allowed. The problem areas were divided into smaller land readjustment project organizing areas and a big effort was made in order to convince landowners to join a land adjustment committee. In places in which such committee could not be organized, these areas were downzoned antiguos inquilinos creando así patrones altamente fragmentadas de propiedad de la tierra. La segunda causa es que un reto clave para la planificación urbana japonesa en todo el siglo 20 era obtener la propiedad de terrenos de uso público, en particular para las carreteras, parques, escuelas y otras instalaciones públicas, debido a la pequeña proporción de la tierra rural pública. La mayoría de los municipios han sido financieramente incapaces de comprar la gran cantidad de terreno necesario para establecer los servicios públicos. El reajuste territorial ha propiciado que la gente establezca demandas, ya que requiere que los propietarios participantes contribuyan con un tercio de sus tierras para uso público como para venta. El tercer factor es que son extremadamente fuertes los derechos de propiedad de las tierras que forman parte del legado cultural.

Para contraatacar, el gobierno japonés en el pasado ha expropiado tierras para montar grandes parcelas para el desarrollo territorial otorgando una generosa compensación. En este caso, el uso de repartición es la única manera de asegurar una infraestructura básica adecuada a un costo razonable.

La cuarta causa podría ser la persuasión. Proyectos de reajuste territorial en 1959 permitieron el gobierno local iniciar repartición directamente, sin el consentimiento de los propietarios de tierras, cuando los objetivos de planificación importantes estaban en juego. De hecho, toda la historia de planificación de la ciudad durante la posguerra japonesa puede ser contada desde la perspectiva de los intentos por organizar proyectos más sencillos de reajuste territorial, más aplicables en una situación como la reurbanización del centro de la ciudad, y más atractivos para los propietarios en respuesta a sus demandas, como dejar un poco de terreno para la agricultura.

Una política que amplía el uso de reajuste territorial se logró mediante el uso flexible de la ley Senbiki en 1980. Esta ley permitió que el Ministerio de la Construcción comenzara la designación entre el área de la promoción de la urbanización (UPA) y la zona de la urbanización controlada (UCA) donde el desarrollo territorial no debía permitirse. Las áreas problemáticas fueron divididas en un proyecto de reajuste territorial más pequeño mediante la organización de áreas y haciendo un mayor esfuerzo para convencer a los propietarios de tierras a unirse a un comité de ajuste territorial. En los lugares en
to UCA so no land development was allowed. Arguments for participation in land readjustment projects were stressing public and social benefits of better-designed urban development, better provision of roads and parks, and improved community facilities.

Some districts in Tokyo are currently undergoing integrated development in order to rebuild communities. In one case study, we illustrate a completion of the first shared residential building in the Higashi Ikebukuro district. The second case study illustrates how a wooden close-set housing project has been transformed into a metropolitan housing sector using the flexible Sensiki method to enlarge roads and give more public space to the city. In this Ikejiri 2-chome district, private sector projects that give due consideration to matters such as the conditions of residents on land made available by the construction of metropolitan housing community development is enhancing the disaster resistance of the neighborhood, and further efforts are being made to improve the situation of closely packed wooden houses.

Even though the existing conditions in Japan are not the same as in Chile, there are similarities in the purpose of the Japanese land readjustment proposals are applied in Talca so the city becomes a cocoon in order to widespread the use of land readjustment projects.

A pesar de las condiciones existentes en Japón no son similares que en Chile, que el propósito del reajuste territorial japonés es mejorar los servicios públicos de los diferentes barrios de las ciudades. Entonces, qué pasaría si las propuestas de algunos de estos casos de estudio son aplicadas en Talca para que la ciudad se convierta en un semillero para difundir el uso de proyectos de reajuste territorial.
Case Study Hong Kong / Caso de Estudio Hong Kong

Hong Kong is a compact city, with a population of approximately 7 million. To exacerbate the problem, only 16% of Hong Kong’s land mass is suitable for development, resulting in the current housing situation, with approximately 90 percent of the population living in high-rise buildings. In short, the housing demand is high, and the availability of land is low. To address these issues, in this case study, the first and only of its kind, developer created a form of vertical land readjustment.

China has no explicit land readjustment law, but there are laws that allow the compulsory sale of land. In 1999, Hong Kong enacted the Compulsory Sale for Redevelopment Ordinance to streamline the procedure for site assembly for land redevelopment. The law allows for persons who own a specified majority of undivided shares in a lot (currently 90%) to apply to the Hong Kong Lands Tribunal for ordering transfers of the remaining undivided shares for the purpose of redevelopment. The process can also be initiated by the Lands Tribunal itself, in a manner similar to eminent domain, by showing that the property is blighted. The lot is then put up for a compulsory auction. Similar to eminent domain as well, this process is not without complications, and is often lengthy or brought to court.
The Hong Kong land readjustment case used this legal framework to its advantage, and avoided many of the legal and time issues often encountered with its implementation.

Lai Sing Court was a 30-year old building in the Tain Han district of Hong Kong, one of the city’s oldest upscale residential districts. Considering the city’s housing shortage, the lot was not being put to its highest and best use, and could have accommodated a larger building with more units, but, use of the Land Ordinance to facilitate the lot’s redevelopment would have been a lengthy uncertain process with high transactions costs.

From this combination of problems and opportunities, in 2003, Hong Kong Land Property Limited, a leading developer in the city, developed a flat-for-flat system of vertical land readjustment that facilitated the construction of a newer, larger structure without displacing residents. HKL was able to reach agreements with 99% of the current residents, who sold their leases to the developer in exchange for a guaranteed new apartment in the proposed rebuilt structure that would be located on a comparable floor with a comparable view.

Once HKL owned 99% of the property’s leases, they were able to use the Land Ordinance to their advantage and purchase the remaining leases at auction. HKL then began the redevelopment of the lot, and compensated the displaced families for temporary housing during the construction period. Leaseholders were also allowed to sell their leases on the open market at any point and were guaranteed a portion of the future profits that the developer would make on the sale of the additional building units made available in the larger building.

This vertical application of land readjustment succeeded for a combination of reasons. First, China has a leasehold system, so people are accustomed to sharing property rights over common areas in their neighborhoods. Also, this project was initiated during an economic downturn. Previous developers had approached the building’s leaseholders as early as 1994, and, after the economic downturn in 1998, they were more willing to compromise. The residents were also tribunalarios. Para el caso de reajuste territorial de Hong Kong se utilizó este marco legal a su favor, y evita muchos de los problemas legales y de tiempo que a menudo se encuentran con su implementación.

Lai Sing Corte era un edificio de 30 años de antigüedad en el distrito de Tain Han de Hong Kong, uno de los barrios residenciales lujosos más antiguos de la ciudad. Teniendo en cuenta la escasez de viviendas de la ciudad, el lote no fue propuesto para su mayor y mejor uso, pudiendo haber acomodado un edificio más grande, con más unidades, pero, el uso de la Ordenanza Territorial para facilitar la reconstrucción de lotes habría sido un proceso largo e incierto y con altos costos de transacción.

De esta combinación de problemas y oportunidades, en 2003, Hong Kong Terrenos de Propiedad Limitada, líder en el desarrollo de la ciudad, desarrolló un sistema piso por piso de reajuste territorial vertical que facilitó la construcción de una estructura más grande y más nueva sin desplazar a los residentes. HKL era capaz de llegar a acuerdos con el 99 por ciento de los residentes actuales, que vendieron sus contratos de arrendamiento a la promotora, a cambio de la garantía de un nuevo apartamento en la estructura reconstruida propuesta que se encontraba en una planta equiparable con vistas similares.

Una vez que HKL obtuvo el 99 por ciento de la propiedad de los arrendamientos, fueron capaces de utilizar el Ordenamiento Territorial en su beneficio y comprar los arrendamientos pendientes en la subasta. HKL entonces comenzó la remodelación de la parcela, y comenzó a las familias desplazadas con una vivienda temporal durante el periodo de construcción. A los arrendatarios también se les permitió vender sus contratos en el mercado libre en cualquier punto y se les garantizó una parte de los beneficios futuros que el desarrollador tendría sobre la venta de las unidades construidas adicionales disponibles en el edificio más grande.

Esta aplicación vertical de reajuste territorial sucedió por una combinación de razones. En primer lugar, China tiene un sistema de arrendamiento, por lo que la gente está acostumbrada a compartir los derechos de propiedad sobre las áreas comunes en sus vecindarios. Además, se inició este proyecto durante una recesión económica. Desarrolladores anteriores se habían acercado a los arrendatarios del edificio, ya en 1994, y, tras la crisis económica de 1998, estaban más dispuestos a hacer concesiones. Los residentes también estaban muy bien
highly organized, involved, and supportive of the project. The chairman of the building’s owners’ incorporation was able to gain the necessary owner support and also supported the developer. Lastly, the developer’s flexible compensation policy and financial support was a major reason for the program’s success. Because of the upfront time and money savings of the flat-for-flat system, they were able to pay for temporary housing, offered loans to pay off mortgages, and could share some of their profits with the leaseholders.

Today in Hong Kong, these factors are not all still in place. The market is recovering, and there is less opportunity to gain additional FAR in new development.

This land use tool is incredibly interesting to evaluate in the context of Chile and its post-earthquake reconstruction efforts. In developing new master plans, local governments are essentially asking whether or not the previous division of land was appropriate and does it allow for the land to be developed safely? In Chile’s coastal city master plans, the suitability of land was codified for different uses, and land readjustment might be an interesting implementation tool to consider.

From these case studies of land readjustment, many important lessons can be learned and applied to the future of Talca. The first would be to take advantage of local capacities—in the past two years communities have stepped up and successfully taken charge of many reconstruction projects, by decentralizing implementation projects have a more prescribed focus and local work has been much more successful and expedient. By promoting community empowerment and respecting local identities, culture remains prevalent and the heritage of each community is preserved. By adopting regulations that

organizados, participaron y apoyaron el proyecto. El presidente de la incorporación de los propietarios del edificio fue capaz de obtener el apoyo necesario del propietario y del desarrollador. Por último, la política de retribución flexible de los desarrolladores y el apoyo financiero fue una razón importante para el éxito del programa. Debido al tiempo inicial y el ahorro de dinero del sistema de piso por piso, fueron capaces de pagar por vivienda temporal, ofreciendo préstamos para pagar las hipotecas, y pudiendo compartir parte de sus ganancias con los arrendatarios.

Hoy en Hong Kong, estos factores no están aún en su lugar. El mercado se está recuperando, y hay menos oportunidad de obtener FAR adicional en el nuevo desarrollo.

**Lesson for Chile / Lección para Chile**

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Esta herramienta de uso territorial es muy interesante de evaluar en el contexto de Chile así como sus esfuerzos de reconstrucción tras el terremoto. En el desarrollo de nuevos planes maestros, los gobiernos locales se preguntan en esencia si, ¿la anterior división territorial era apropiada y permitía el desarrollo territorial de manera segura? En los planes maestros de la ciudad de la costa de Chile, la idoneidad del terreno fue codificada para diferentes usos y el reajuste territorial pudo ser una herramienta interesante de aplicación a considerar.

A partir de estos estudios de caso de reajuste territorial, muchas lecciones importantes pueden ser aprendidas y aplicadas para el futuro de Talca. La primera sería la de tomar ventaja de las capacidades locales. En los últimos dos años las comunidades han aumentado y tomado con éxito el cargo de muchos proyectos de reconstrucción, mediante la descentralización de los proyectos de implementación teniendo un enfoque más prescrito y el trabajo local ha sido mucho más exitoso y oportuno. Al promover el empoderamiento comunitario y respetando las identidades locales, la cultura prevalece y el patrimonio de cada comunidad se conserva. Mediante la adopción de normas que permiten que
allow flexibility planning efforts will respond to different landscape conditions plans will be much more successful. Creating a denser city will discourage sprawl, alleviate traffic, and property values will rise. Inclusion of affordable housing should be mandated so that current residents are not displaced.

los esfuerzos flexibles de planificación respondan a diferentes condiciones paisaje, los planes serán mucho más exitosos. La creación de una ciudad más densa desalentará la expansión, aliviará el tráfico, y los valores de la propiedad aumentarán. La inclusión de viviendas deberá tener el mandato para que los residentes actuales no sean desplazados.
Planning Obligation / Planning Obligation

Planning obligation is a tool of land value recapture utilized in England that involves a private agreement between a developer and the municipality to allow a development that would otherwise not meet local regulations. This tool is relatively rare and only used in certain circumstances. Obligations must follow three general guidelines:

- Prescribe the nature of the Development, such as requiring that a certain amount of units within the development be affordable or that it must incorporate some sort of community facility.
- Compensate for loss or damage caused by the development. For example, if the development removes natural or open space, the developer must pay into a fund or create a greater or equal amount of new space in a different location.
- Mitigation the development’s impact. If the development causes strain on local services, such as additional traffic, the developer must mitigate these effects.

Planning Obligations apply to the land so that even if the ownership changes, the agreement must still be honored. The obligation must be directly related to the development and cannot be a means to achieve some other ancillary goal such as providing additional services. In addition, the obligation must be reasonably related to the scale of the development. After five years, a property owner can apply to have the obligation removed if it has ceased to meet its intended function, providing a safety valve for the regulation.

Planning Obligation / Desarrollo de Viviendas de Terreno General

The Broadlands Housing Development in Breckland, England is an example of the successful utilization of a Planning Obligation. This is a large housing development that, when first proposed, did not meet local regulations. This tool is relatively rare and only used in certain circumstances. Obligations must follow three general guidelines:

- Prescribir la naturaleza del desarrollo, tal como la exigencia de que una cierta cantidad de unidades dentro del desarrollo sean accesibles o que debe incorporar algún tipo de servicio comunitario.
- Compensar las pérdidas o daños causados por el desarrollo. Por ejemplo, si el desarrollo quita espacio natural o abierto, el desarrollador debe pagar un fondo o crear una cantidad igual o mayor de espacio nuevo en un lugar diferente.
- Mitigación del impacto del desarrollo. Si el desarrollo produce una carga sobre los servicios locales, tales como el tráfico adicional, el desarrollador debe mitigar estos efectos.

Las obligaciones de planificación se aplican al territorio por lo que incluso si hay cambio de propiedad, el acuerdo debe ser honrado. La obligación debe estar directamente relacionada con el desarrollo y no puede ser un medio para alcanzar algún otro objetivo complementario, como la prestación de servicios adicionales. Además, la obligación debe ser razonablemente relacionada con la escala del desarrollo. Después de cinco años, un propietario puede solicitar que la obligación de retire si ha dejado de cumplir su función, proporcionando una válvula de seguridad para la regulación.
Priority Development Zones / Zonas de Desarrollo Prioritarias

Priority development zones are one of the main mechanisms for building affordable housing in France. They were widely used after World War II in response to the massive housing crisis resulting from war-damaged property and a baby boom. Through priority development zones, local authorities are given the ability to expropriate land on the periphery of cities to build housing. The authority creates plans for how the land should be developed, including the number of units and services that will be required, and builder and developers are contracted out to carry out the plans.

The ZUP (Zone a Urbaniser en Priorité) outside of Paris involved expropriating 22 sites totaling approximately 5,900 acres of land. Over 140,000 housing units were created on these sites over a two-decade period in accordance with a municipality-created a zoning plan that specified the services and infrastructure that were needed for each site. The developers who built the housing financed the services and infrastructure, which has resulted in a large amount of new parks and social housing as well as additional train connections.

Batterment Levy / Batterment Levy

Since 1921, Columbia has employed taxes on increases in land value to fund infrastructure. The one-time tax levied on the increased land value resulting from the general benefit to the public, as well as a private benefit to certain

normas locales de planificación. El desarrollo negoció con el municipio y acordó proporcionar ciertos servicios a cambio del derecho a construir, lo que derivó en un nuevo espacio abierto comunitario, así como nuevas unidades accesibles.

Desde 1921, Colombia ha utilizado impuestos sobre el aumento de valor de la tierra para financiar la infraestructura. El impuesto único recaudado para el incremento del valor territorial resulta en un beneficio público general, así como en el benefi-
The betterment levy is most often used in the country’s large cities such as Bogota and Medellin. In Bogota, betterment levies have funded over one billion dollars in new investment, including the city’s bus rapid transit system, the Tran-Millenio. This system has over 50 miles of exclusive bus lanes, carries 1.6 million people a day and is an international symbol of progressive transportation policy. When a new public works projects is proposed, an area of influence is created around it, based on both property owners’ proximity and accessibility to the new project. To reduce the amount of the levy on individual property owners, the area of influence is expanded as much as possible. The rate for each property owner is then calculated by their respective benefit, based on both their accessibility to the project and their ability to pay.

The betterment levy is widely accepted among citizens and the business community in Columbia; over 1.5 million properties have been affected by the levy in Bogota alone with relatively little opposition. The success of the levy is attributed to the fact that resulting infrastructure projects are popular among a wide cross-section of the country’s population.

**Bogota / Bogotá**

In Chile, impact fees are used to finance infrastructure. In the past, local Chilean governments had very little means to...
raise revenue, relying primarily on property tax and vehicle registration fees. In reaction to this problem, impact fees first emerged in the Santiago areas as way to pay for road networks to services new subdivisions, which was formerly done on a predominantly local, ad-hoc basis. Acknowledging that new development have impacts exceeding their immediate surrounding, impact fees started to be used to fund larger pieces of infrastructure. One example is a freeway on the periphery of Santiago, which was paid for through impact fees. Because the freeway went through multiple municipalities, connecting a large number of new subdivisions, the federal government had to coordinate the impact fee. The government negotiated the fee with developers along the road based on their proximity and how much traffic their subdivisions would generate. In total, 41 percent of the freeway’s construction was financed through impact fees.

Columbia Urban Intervention in Bogota / Intervención Urbana en Bogotá

cos medios para recaudar ingresos, basándose principalmente en impuestos a la propiedad y los derechos de registro vehicular. En respuesta a este problema, las cuotas de impacto surgieron por primera vez en las zonas de Santiago como forma de pagar por la red de carreteras a servicios de nuevas subdivisiones, que antes se hacía sobre una base ad-hoc predominantemente local.

Reconociendo que los nuevos desarrollos tienen impactos que exceden su entorno inmediato, las cuotas de impacto comenzaron a ser utilizadas para financiar las piezas más grandes de infraestructura. Un ejemplo es una autopista en la periferia de Santiago, la cual fue pagada mediante de las cuotas de impacto. Debido a que la autopista pasa a través de múltiples municipios, conectando un gran número de nuevas subdivisiones, el gobierno federal tuvo que coordinar la cuota de impacto. El gobierno negoció la cuota con los desarrolladores a lo largo de la carretera en función de su proximidad y la cantidad de tráfico que las subdivisiones generarían. En total, el 41 por ciento de la construcción de la autopista se financió a través de las cuotas de impacto.
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