

## *Rural Skin, Urban Masks: Hybridization at the edge of contemporary Chinese cities*

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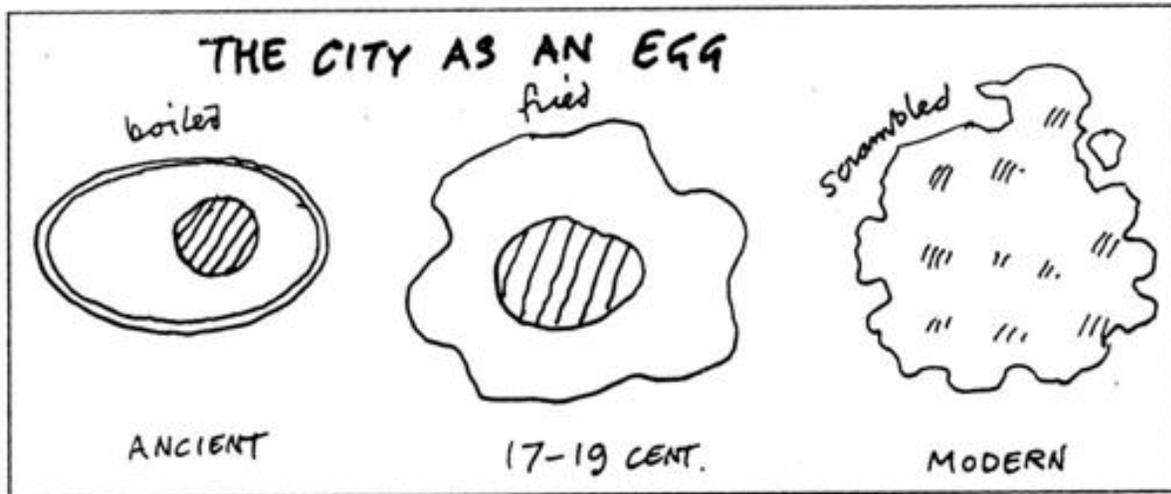
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**Abstract:** Hybridization deals with boundaries, categories, layers, as well as mixing tools. This paper attempts to explore hybrid architectural design strategies at the rural-urban edge in contemporary Chinese urbanism. The edge here is explored as a thick condition rather than merely physically, including left-over blind spot, marginalized urban villages, and interstices between infrastructure and architecture as three layers to make up the above notion of thickness. To respond, three conceptual hybridization design strategies – ‘Archi-Furniture’, ‘Archi-Structure’ and ‘Archi-Infrastructure’ are developed and examined through comparative case studies in contemporary architecture emerged from the Pearl River Delta region of southern China, which is the most developed region of the country with rapidly urbanizing townscapes and villagescapes. Finally the paper concludes that hybridization is not merely a reduced concept of mixing elements of or into architecture, but as a critical tool of design intervention to mediate a sustainable path of transformation in the rural-urban edge of Chinese cities. Hybridization can facilitate the reconstruction of the fragile identity at this rural-urban edge in a locally-rooted approach, in order to achieve a better balance between density, livability and sustainability.

**Keywords:** *Hybridization, Rural-urban Edge, Archi-Furniture, Archi-Structure, Archi-Infrastructure.*

### *1. Introduction*

Urban sprawl in contemporary Chinese cities continues to mushroom at a breakneck pace both horizontally and vertically towards ‘modern’ urbanity, with mass production of generic fabric buildings and iconic spectacles in place of rural vernacular villages. To large extent it corresponds to Cedric Price’s ‘Three Eggs Diagram’-- the city as an egg: from boiled, fried to scrambled, which shows that both the physical and mental boundaries between the rural and the urban have been dissolved dramatically, particularly at the edge of the city boundary, or the peri-urban interface.



**Fig.01 Cedric Price's 'Three Eggs Diagram'**

Source: [http://farm7.static.flickr.com/6135/6208380488\\_8947b0b7c7\\_b.jpg](http://farm7.static.flickr.com/6135/6208380488_8947b0b7c7_b.jpg)

This paper looks closely at the hybridization of spatial strategies and physical form at this edge -- the emerging 'Middle Landscape'<sup>1</sup> the in-between rural urban fringe as quoted from Peter G. Rowe, where hybrid constructions somewhere between village and city mediate and respond to the voids, blind spots, as well as terrains vague. The paper illustrates hybridization design strategies in contemporary architecture, which negotiate and reconstruct the fragile identity at this threshold in a locally-rooted approach. Focused research area is set into the Pearl River Delta region of China, a 'restless landscape'<sup>2</sup> quoted from John Friedmann, a 'Mega-urban Landscape'<sup>3</sup> quoted from Rem Koolhaas, which has emerged as a hybrid transition point in-between urban and rural, with juxtaposition and mixture of elements including existing farmlands and waterways, rural vernacular architecture, new traffic-infrastructure and building typologies.

Firstly, this paper provides a critical perspective on the edge, the peripheries, the peri-urban interface, the terrain vagues, where hybridization design position responds to and the potential to creative inhabit these edge conditions through hybrid architectural intervention. Secondly, the paper moves onto the critical practice within the contextual specificity of Pearl River Delta region, by reflecting on the hybridization design interventions from which three strategies emerge: small-scaled 'Archi-Furniture' for the hybridization from blind spot to common space (cases: *Qinmo Village Primary School* by RUF; *Sungang Central Piazza and Nanshan Marriage Registration Center* by URBANUS); medium-scaled 'Archi-Structure' for the hybridization in urban village (cases: *Dafen Art Museum and Tulou Collective Housing* by URBANUS); *mega-scaled* 'Archi-Infrastructure' for the hybridization towards city archipelago (cases: *Village\_Amidst\_the\_City* by URBANUS; *Guangzhou Fanyu Railway Station* by MVRDV). Finally, through the diversity and heterogeneity of design strategies this paper acknowledges multiple transition points towards hybridization at the edge of the rural and the city without missing indigenous resources, and reveals that hybridization as an elastic design thinking tool to respond to the rural-urban condition in contemporary Chinese situation which could facilitate new possibilities for innovative spatial organizations in a more complex spatial, environmental and functional layering. In this sense hybridization becomes a critical position

and methodology to establish a robust approach both spatially and metaphorically to the emerging architecture and urbanism in China.

## *2. Hybridization Perspective at the Edge*

Although as a term with different variables to define and tendencies to transform in different disciplines, what remains stable for ‘hybridity’, or ‘hybridization’, is that it always deals with boundaries, categories, layers, as well as tools. Within architectural boundary the notion of hybridization often refers to the process of urban transformation and mutation, or the fusion and evolution of a specific architectural typology. However, hybridization can also be seen as a design strategy for architectural intervention which is not only to expand the predefined boundaries but also to inhabit the edges, the vague territories, the peri-urban interface between rural and urban.

*‘The urban-rural interface, variously known as the urban fringe, the rurban zone, the urban field, the peri-urban area or the urban periphery, performs an important role in the urbanization process of a country. Since peri-urban areas area involved in a process of transition, they cannot be precisely defined spatially.’<sup>4</sup>*

Because of the ambiguity and difficulty to precisely define the edge spatially, hybrid ways and hybridization process to inhabit the edge becomes more critical. On one hand it refers to the uninhabitable zones and discontinuities in the physical fabric: the margin, fringe, verge, rim, or the in-between, the forgotten, the disused, the left-over, all of above forms ‘Terrains Vagues’ which was defined by Sola-Morales ‘as ambiguous, unresolved, and marginalized spaces in the urban landscape’.<sup>5</sup> On the other hand it registers the uninhabitable zones and discontinuities in the social and temporal fabric: the mentally marginalized group, the decaying community structures with fragile identities, and the tension between the built-up void center and diversely changing boundary. Hybrid inhabiting the edge is also potential: Martin Heidegger noted in his ‘Building, dwelling, thinking’ that ‘A boundary is not that at which something stops but, the boundary is that from which something begins its presencing.’ Sola-Morales also broadened an operative function for terrain vague as supplying the need for alternative spaces and uses within the contemporary city.

There are several types of edge conditions in the transition zones between rural-scape and urbanscape, and they themselves are in constant and rapid changes. They are generally classified as left-over urban blind spot, marginalized urban villages, and interstices between infrastructure and architecture. The edge of the city triggers hybridization, because this in-between zone cultivates a hybrid condition before further hybrid interventions. As David G Shane noted on urban villages as global condition: ‘we have had Green Belts before, but vast agricultural-urban hybrid areas, populated by villages that are far from agricultural, rural roots makes and apparently new urban morphology, sometimes called ‘rur-urban’, the ‘citta diffusa’, diffuse city or landscape urbanism.’<sup>6</sup> The edge of the city is in a constant flux of multiple layering: ‘the anthropical space therefore possesses another layer, made up of urban pieces, agricultural residues, infrastructures, built and un-built spaces, functional agglomerates of various kinds.’<sup>7</sup>

The contribution for the hybridization to the above thick edge condition is to stimulate a sort of ‘Edge Effects’ similarly in ecology -- the overlapped and intersected zone which is in-between two ecological patches has the heterogeneity and flexibility for wildlife from both to inhabit and interact. The area thus has gained the diversity and intensification of activities. Analogously, in the transformation from rural to urban, the creative adjacency, the unexpected collision and mixing, the reorganization of multiple layers, all produces a synergy which is twofold: one is negative, as can be seen from the lost landscape or non-place at the edge of the urban sprawl; one is positive, which has the potential to transcend the two matrix to generate a hybrid with shared strengths, that is -- the sum of the parts is greater than the whole.

### *3. Hybridization Practice at the Edge*

Applying the above global thinking into local action, to take contemporary Chinese urbanism as an example, the emerging critical issues from its mega scale and super-high pace still lie in an intermediate position which is half within and half outside the orthodox architectural discourse. The traditional distinction between the rural wild and urban civilization based on the figure-ground relationships has been blurred at the edge of city, both physically and mentally. Artificial structures of fleetingness, of fragmentation, of roughness, of over-design, keep growing simultaneously in the planned urban and wild rural, forms up territories of coexistence with heterotopia of flows and kinetic quality of informality. Different from threshold structures in European models of compactness, or what Peter G. Rowe called ‘cultural artefacts’ for suburban American cities, there are four emergent spaces acting as specific symptoms in contemporary Chinese cities: ‘factory territories that exist in indistinct zones between urban and rural space; infrastructural networks; cultural clusters; and the mental and social networks of new urban subjects who come from the countryside but work in cities’.<sup>8</sup>

Three key conceptual strategies provide lenses for examining the selected cases: ‘Archi-Furniture’, ‘Archi-Structure’, and ‘Archi-Infrastructure’. They act as catalysts of cross-scaled hybridization, ranging from meta-territories between the rural and urban, to the mini-terrains-vagues scattered inside the city. And they share several specific characteristics as follows: ‘Multiple of layering’ (creative adjacencies on thickened topographical surface); ‘Cross-programming’ (simultaneity and coexistence of contrasting elements); ‘Trans-programming’ (improvisation and spontaneous occupation pattern); ‘Symbiosis’ (interdependence at different scales).

#### *3.1 Archi-Furniture*

The first strategy is small-scaled ‘Archi-Furniture’, which facilitates hybridization from blind spot into common space. The small here is respectively, not merely the ‘pet size’<sup>9</sup> as Atelier Bow-wow put, but with emphasizes more on the structural agency in architectural interventions which act in a way like using room furniture.

Rural Urban Framework (RUF), a nonprofit design research agency based in University of Hong Kong, addresses the current-day realities on the ground: complex social structures and hyper-development in China's forgotten countryside. 'There's no comfortable transition between rural and urban in China. It's a collision between the two.'<sup>10</sup> Through acupuncture-like interventions at the edge of rural, RUF tackles different projects to make connective and resilient communities. Their hybridization design process, in which building and programming often work hand in hand, generates high value in their socially-responsive interventions.

In Qinmo, an undeveloped rural village in Pearl River Delta region, RUF challenges the standard three-floors-concrete-school building mode by rethinking the social sustainability through the production and consumption process of the building. The existing classrooms of the school are disused and the space around the classrooms is blind spot at the edge of the village. RUF's strategy is to overlap a new terraced roof structure as a thickened topographical surface which extends from the outside playground and blends the school into the surrounding farming topography. In this way the disused classrooms are reactivated, and transformed into a roof-top community place encouraging diverse and provisional occupation by villagers, especially in evenings, weekends and vocations when out of curriculum.

Reclaiming the common value between the existing structures' roofs and space in between, this new furniture-like hybrid from the perspective of the village revitalizes the forgotten edge into a vibrant hub.



Fig.02 Sectional Site Collage, Village Primary School, Qinmo Courtesy @ RUF

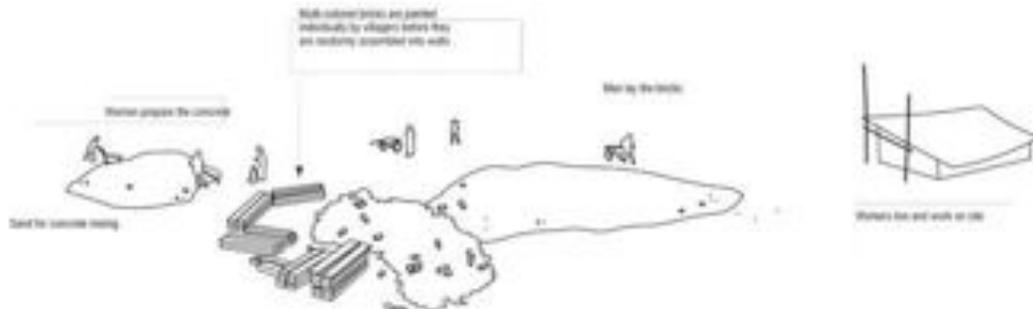


Fig.03 Collective Construction Process, Village Primary School, Qinmo Courtesy @ RUF



Fig.04 Students Activities, Village Primary School, Qinmo Courtesy @ RUF



Fig.05 Community Events, Village Primary School, Qinmo Courtesy @ RUF

In a more urban edge condition, Shenzhen-based architectural practice URBANUS keeps developing hybridization strategies. A frontier city as a Special Economic Zone in Pearl River Delta, Shenzhen is undertaking a ‘Great Leap Forward’ from a fishing village into a metropolitan in 20 years. Planned urban expansions absorbed peri-urban villages, however chaotic urban evolution in ‘Shenzhen Speed’<sup>11</sup> outweighed the extremely well-organized paper planning. Existing rural villages, self-organized urban villages, planned communities, shopping malls, industrial parks, all function as urban fragments within the superblocs and endless networks of highways. URBANUS attempts to refabricate the edge through urban infill to resist the monumental building objects and fragmented public domain. They took their ‘Urban Garden Initiative’ as ‘a tool to refill the urban residual to re-establish connections of the public domain’.<sup>12</sup>



Fig.06 A Thickened Topography, Sungang Central Piazza, Shenzhen Courtesy @ URBANUS

In the project of Sungang Central Piazza as one of urban refill projects, the site for URBANUS was not a rural one, but was anti-urban obviously, an urban blind spot with naked ground plane and negative car-parking area surrounded by warehouses. What was even worse for URBANUS's intervention was that on site the underground car-parking structure was in half construction process while the clients thought for demolition; outside site there were no references for adjacent sites' development in urban plan.

URBANUS's strategy is to emphasize on the hybridization of urban surface space, in other words, a more porous and thickened topography, which can introduce hybrid programmes and public event-structures, reconnect pedestrian routes and stimulate new activities. They worked with the existing underground car-parking structure, proposed a new urban skin as well as a membrane-like roof-scape. The thin and light-weight surface makes an upside and down artificial landscape, with several sunken piazzas which provide direct access to underground car-parking and service facilities (such as kiosks and washrooms), as well as a series of islands-like pocket gardens which integrate intimate event-structure for civic engagement.

Acting as a carpet of urban room, this programmatic and spatial layering balances public and private needs, and creates a vibrant and civic space. It is a hybrid of public domain, street furniture, landscape and architecture – 'Archi-Furniture'.

In another project of Nanshan Marriage Registration Center, the edge condition was not presented as disused blind spot but as a suppressed catalyst which didn't make full use of the urban proximity of the site in a green park. The particular programming of the architectural intervention provides a base for URBANUS to develop a hybridization strategy to activate the catalyst potential of site-specificity -- connecting the architectural ritual during the marriage registration process with the public domain.

Instead of covering the whole linear site (with a length of 100 meter and a width of 26 meter)<sup>13</sup> like normal administration building does, URBANUS freed up a majority part of the site returning to public space as an original part of park, by anchoring a circular functional volumn and a framing gateway structure at each end of the site with an open void sandwiched. Two linkages penetrate the water void to provide a ritual promenade into the interior; besides, the authorship of all the left space is shared to the users, whether regular or temporary, for their provisional and spontaneous inhabitation. After occupation, the furniture-like architectural hybrid, beloved so much by the locals, becomes a city-level community space quickly, where the everyday public domain meets the urban ritual space.

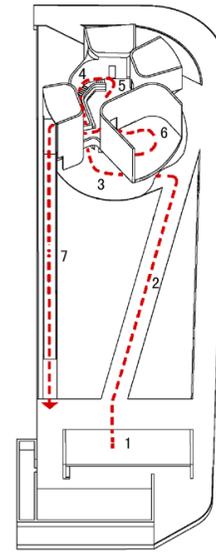


Fig.07 Site Layout and Circulation, Nanshan Marriage Registration Center, Shenzhen  
Courtesy @ URBANUS



Fig.08 Archi-Furniture inside Park, Nanshan Marriage Registration Center, Shenzhen  
Courtesy @ URBANUS



Fig.09 Ritual Movement in Public Space, Nanshan Marriage Registration Center, Shenzhen  
Courtesy @ URBANUS

### 3.2 Archi-Structure

The second strategy is medium-scaled ‘Archi-Structure’ for the hybridization in urban village (village-in-city).

Different from furniture-acupuncture urban infill hybridizations, URBANUS tackles marginalized urban villages in Pearl River Delta cities through hybridized architectural intervention integrated with locality and the contemporary vernacular, in their well-known built cases Dafen Art Museum in Shenzhen and Tulou Collective Housing in Guangzhou.

*‘From rural enclaves the Shenzhen urban villages developed into dense, vertical urban fragments, like Kowloon’s earlier Walled City, housing a large percentage of the unregistered workers drawn to work in factories.’<sup>14</sup>*

These self-made informal enclaves evolve as sort of autonomous structures somewhere between the city and countryside, where bottom-up development from inside mediates top-down forces from outside. Therefore urban villages form a seemingly isolated but connective edge condition, whether they are physically located within city or at the outskirts.

Within the city boundary, Dafen is a self-organized urban village full of grassroots studios producing fake but cheap oil paintings to the whole country. URBANUS’s proposal of a contemporary museum here is more like one of Michel Foucault’s heterotopias of illusion<sup>15</sup>, because of the incompatible contrast between the high art and low cultural production. First strategy is still cross-programming – ground floor painting shops, second floor exhibition hall, third floor rooftop plaza, all programs are overlapped in a loose-fit spatial organization with multiple circulations, which makes it less a ‘museum’ in the traditional sense, but more a mixed-use village center. Secondly, multi-leveled topography (with a maximum of 18 meters)<sup>16</sup> made the site a real non-human edge isolated by borders of old villages, new villages, new high-rise residential buildings and a school. Serving as a land-form to extend of the site’s unique topography, URBANUS proposed a series of bridging structures, some of which penetrate the courtyard building, some direct to rooftop plaza, some make alternative access to surrounding buildings. Multiple routes with functional unpredictability provide multiple possibilities for spontaneous use from nearby community and establish a symbiotic relationship between the fragmented elements to achieve a degree of interdependence at different scales.

From this viewpoint Dafen Art Museum serves as a structural connector, knitting together the different areas both physically and mentally, at the edge of the fragmented neighborhood.



Fig.10 Archi-Structure in Urban Village, Dafen Art Museum, Shenzhen  
Courtesy @ URBANUS



Fig.11 A Topographical Connector, Dafen Art Museum, Shenzhen  
Courtesy @ URBANUS



Fig.12 A Structural Mediator, Dafen Art Museum, Shenzhen  
Courtesy @ URBANUS

At the outskirts, URBANUS presents Tulou Collective Housing as another narration of architectural hybridization. They seek for an integrated design approach tackling the problematic issues of high density, vernacular typology, and disadvantage group in contemporary Chinese cities.



Fig.13 Tulou Vernacular Architecture  
Source: <http://gallery.photo.net/photo/6716646-lg.jpg>

Drew inspirations from vernacular architectural typology Tulou, a circular dwelling type found in the local rural areas which is unique for protective communal living and which integrates storage, shopping, religion, and public entertainment into one single building entity, URBANUS took this opportunity to discover a pioneering prototype for affordable housing in Pearl River Delta region. They found a piece of corner land left by highway which isn't suitable for high-income apartment, and respected the condition for a socially-conscious design as much as possible -- the hybrid form of the low-income building stands as a resistance to the generic high-rise blocks around it.

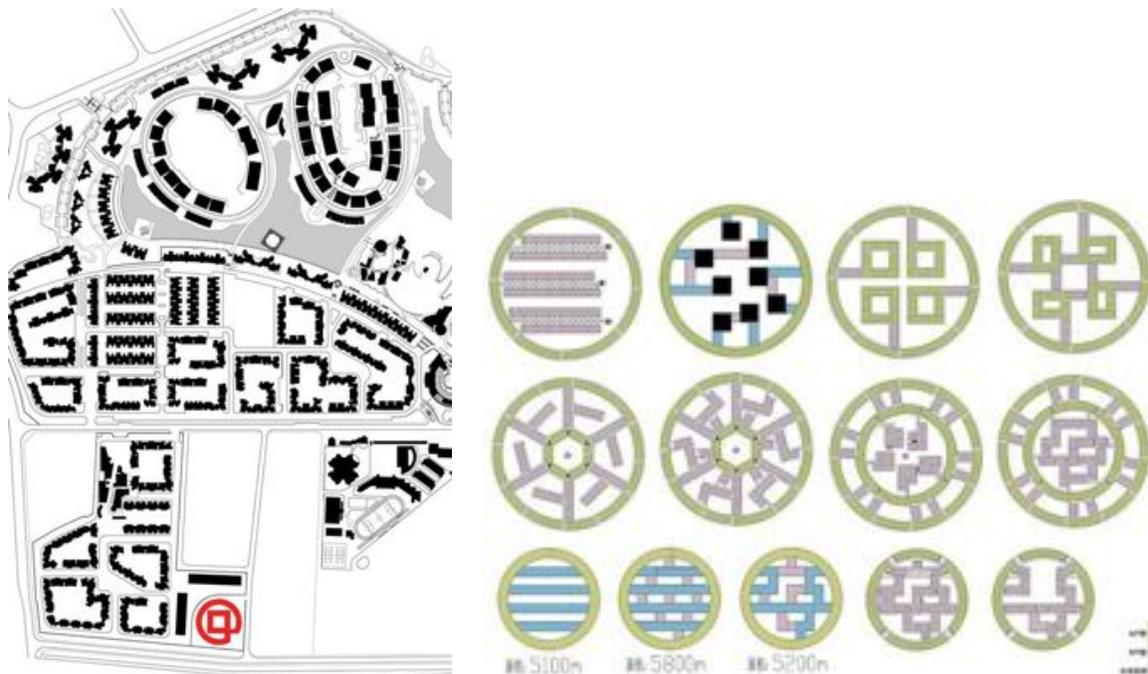


Fig.14 Site Layout and Development of Spatial Organization, Tulou Collective Housing, Guangzhou  
Courtesy @ URBANUS

The new hybrid building consists of an outer circular block with a rectangular box within that is connected to the outer ring by bridges and a courtyard. URBANUS extended families' housing units along the periphery, lower floors had no openings, upper-level were very small and the central space was for community activities<sup>17</sup> -- just the same strategy as vernacular Tulou did to achieve a defensive organization but still in harmonious relationship with their environment. What they refined was the average diameter from 50 meters in vernacular earth house to 72 meters<sup>18</sup> in concrete envelop with wooden screens which could bring more natural light and ventilation to accommodate contemporary living.



Fig.15 An Autonomous Structure, Tulou Collective Housing, Guangzhou  
Courtesy @ URBANUS

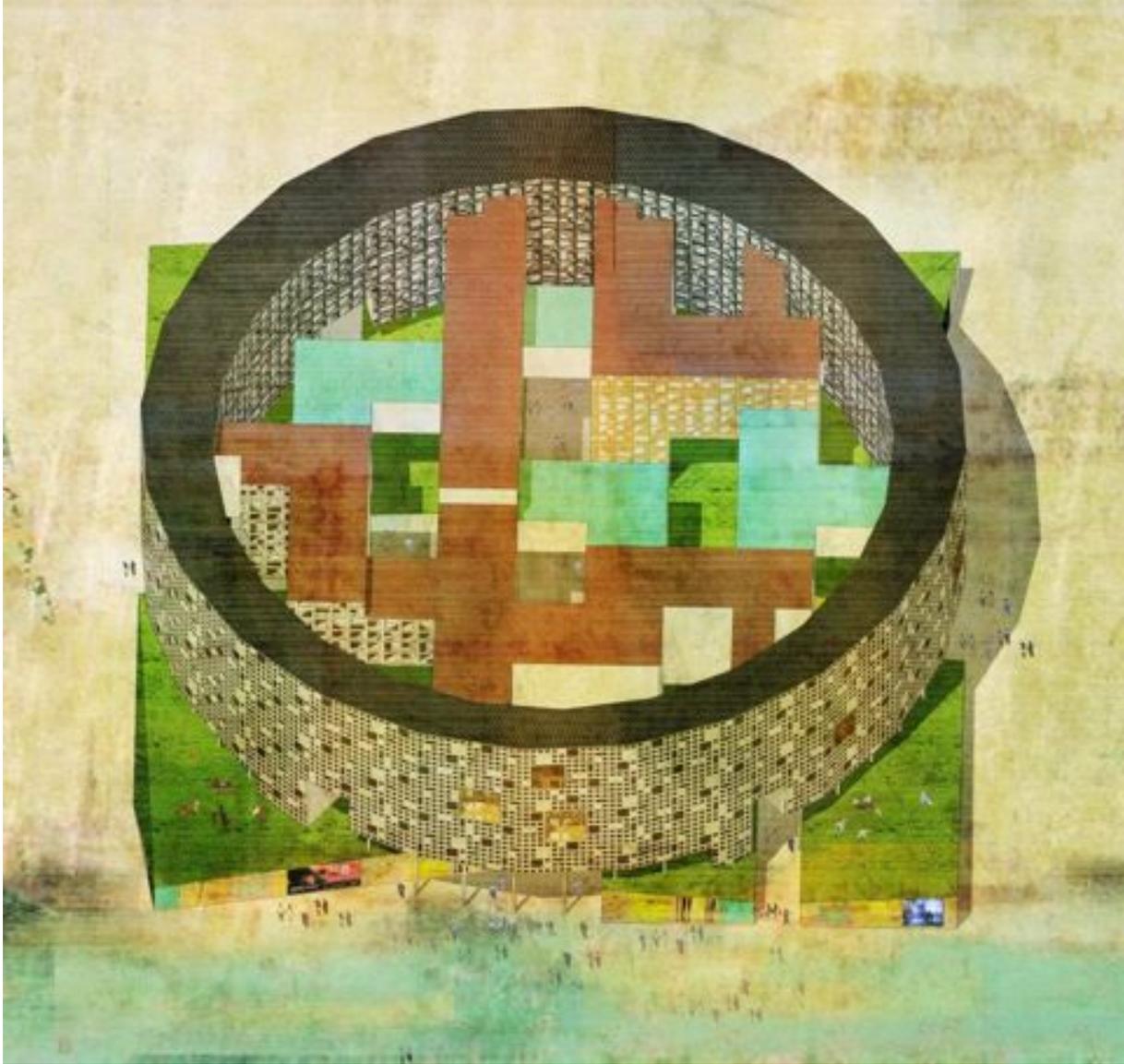


Fig.16 A Hybrid Archi-Structure, Tulou Collective Housing, Guangzhou  
Courtesy @ URBANUS



Fig.17 Collage into Urban Village and Infrastructural Interstices, Tulu Collective Housing, Guangzhou  
Courtesy @ URBANUS

What is more thought-provoking is that, they went on collage this hybrid structure to stitch into existing periphery fabric including expressways and residual land left over by both city and village.

### *3.3 Archi-Infrastructure*

The second strategy is mega-scaled ‘Archi-Infrastructure’ for the hybridization towards city archipelago, to hybridize the interstices between infrastructure and architecture.

One kind of edge stands out for the hybridization design -- the zones created by the linear cuts incised through the morphological continuity of the contemporary city by traffic-infrastructures<sup>19</sup>. ‘Although static in and of themselves, infrastructures organize and manage complex systems of flow, movement, and exchange,’<sup>20</sup> the capacity of which exactly what architectural design wish to have in recent decades.

There exists a huge potential to innovate hybrid architecture of weak form – dissolved into infrastructure – to inhabit the periphery and edge conditions of the city. The notion of massing, of gravity, of volume in architecture, all has the possibility to be dissolved as the overlapping and interweaving of several line-works; architecture could survive without the reference of urban context, not only visually looks like but also performs like civic infrastructures such as tunnels and bridges; building has been gradually dissolved into the wild but undescribed in-between zones, to a state of ‘Archi-Infrastructure’ which is non-architecture or non-landscape.

In their Proposals for ‘Village-Amidst-the-City’ in Shenzhen, URBANUS examined ‘Archi-Infrastructure’ strategy for rehabilitation design into existing mega-block of more than 400,000 sqm. By reading the existing sectional layers of the building and infrastructure, the additional ‘Archi-Infrastructure’ system was mainly made up of a series of multi-leveled ring passages, travelling at different heights throughout existing blocks, connecting public and semi-public spaces particularly the rooftops of each individual building. By partial demolition, infilling, stitching and adding public facilities, this roof-work attempted to reintroduce a civic spine to repair the fragmented fabric of caused by the interstices between the village and urban civil infrastructure, and to reinvent the edge of the village as the driven force for a new inter-connected community.



Fig.18 A Roof-top Civic Spine, Village-Amidst-the-City, Shenzhen  
Courtesy @ URBANUS



Fig.19 Sectional Archi-Infrastructure, Village-Amidst-the-City, Shenzhen  
Courtesy @ URBANUS

In the following case of Guangzhou Fanyu Railway Station strategic planning by MVRDV, the strategy of ‘Archi-infrastructure’ made an effect towards a porous and resilient rural urbanization.

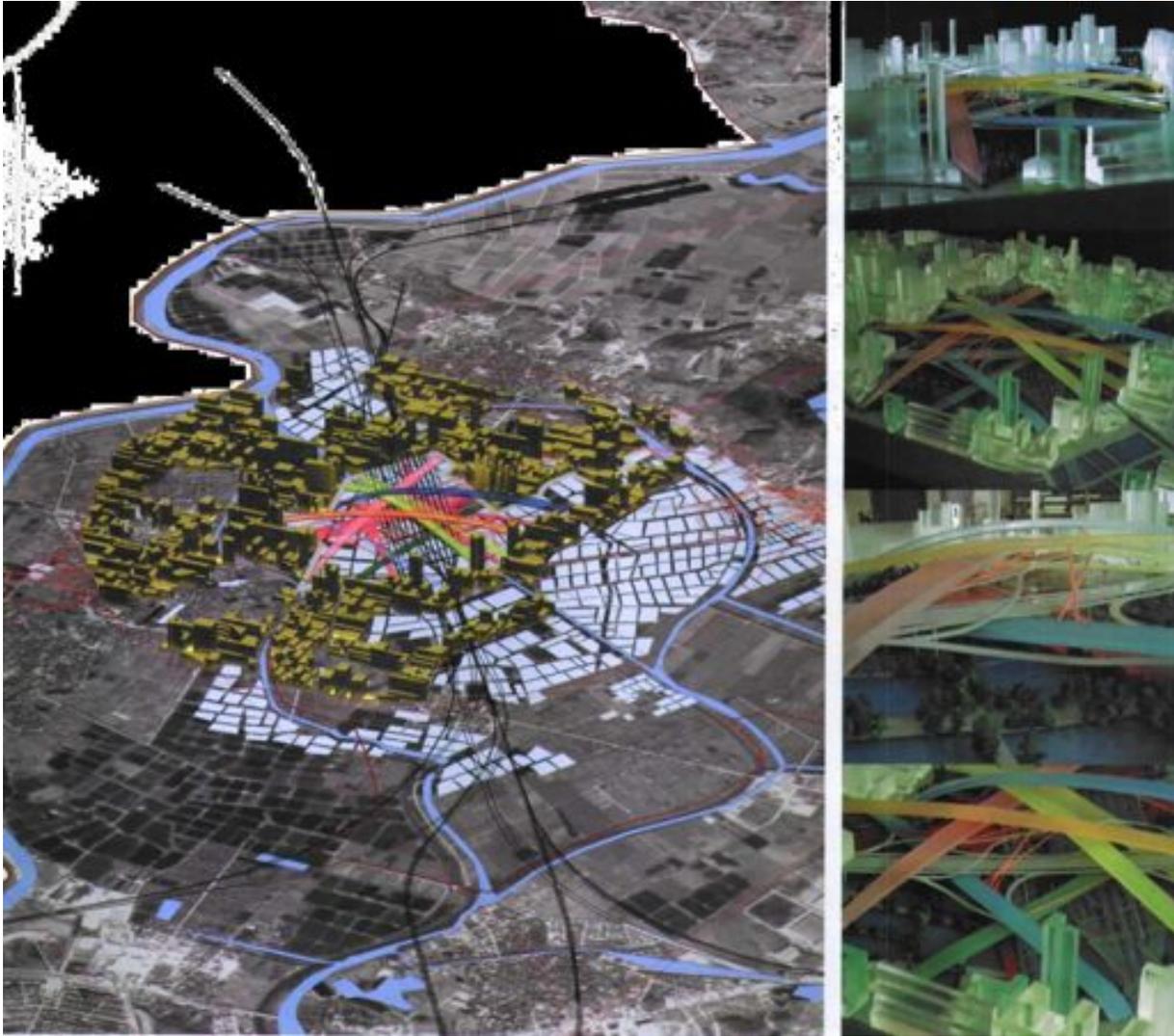


Fig.20 A Hybrid Micro-city, Fanyu Railway Station, Guangzhou  
 Courtesy @ MVRDV

The station was proposed at the edge area between the rural and city, with the existing site full of farmlands, fish ponds and rural villages. In order to maximum protect the vulnerable ecological variety of the site, or more precisely, the larger geographical region, MVRDV proposed a system of bridge-like geo-structures floating and intersecting in a way that producing a series of cavities, crevices and voids to keep the porosity of the existing land structures, whether natural or artificially. Natural light and rainwater could still be approachable even at the bottom of the proposed ‘Archi-infrastructure’, and summer wind could still penetrate the geo-structures in a sustainable manner. Therefore a hybrid relationship has been established: the agricultural plants continue growing without being sacrificed by the artificial urban structures; the public urban programmes, including highways, transportation centers, hotels, and even a library, could be lifted onto the existing fish ponds, waters and rural traffic networks.

From infrastructure as autonomous element to infrastructural layering onto architectural hybrids, these bridge-like ‘Archi-infrastructure’ creates a new artificial topography for the existing rural urban edge, which adjusts the density and fabric pattern, as well as the occupation pattern throughout time.

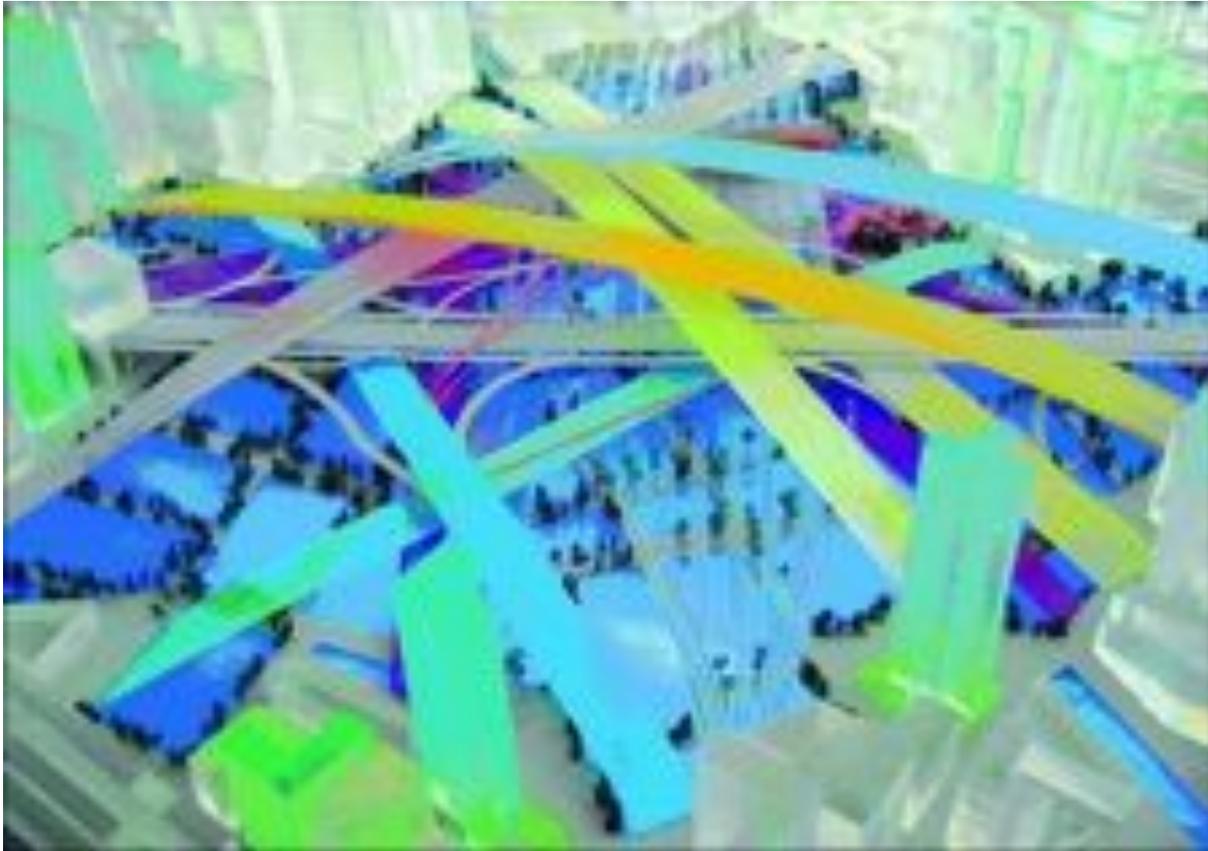


Fig.21 Bridging Infrastructure through Infrastructure, Fanyu Railway Station, Guangzhou  
Courtesy @ MVRDV

Through programmatic conflict and compression at the architecture and urban scales, the infrastructural approach of the two cases above trigger effects to achieve the heterotopian quality of hybridization at the edge between the rural and city.

#### *4. The Difficult Path Ahead*

Like so many stories in China, the stories of becoming urban, of hybridization at the rural-urban edge of contemporary cities is an ongoing one, thus the conclusion here is more a kind of stock-taking to direct an alternative way forward. Given the particular demographical and economic reality of China, it is irreversible for the rural urbanization. However, from the perspective of architects and urban designers, rather than staying at the point of debating on how to avoid an aggressive urban development at the sacrifice of rural landscape, it would be much more effective to move forward to seek for a sustainable path of transformation from rural to urban. And it is this sustainability in transformation, as quoted from John Friedmann, ‘sustainability – that is, the durability and robustness of China’s urban transition in ecological,

sociocultural, and economic terms,'<sup>21</sup> on which the key value of the hybridization design strategies in urban and architectural intervention relies.

One of the key challenges for a sustainable urbanism in contemporary Chinese cities is the disarticulation between urban and rural landscape -- the dominant urban elements, the vulnerable rural ones, and the ambiguously evolving frontier at the edge of sprawl. Joshua Bolchover noted that 'while most attention is given to the booming mega-cities in China and the associated problems of over-population, the rural areas in China are being largely ignored. Yet, a sustainable development of the rural areas is precisely that which will be decisive for China's future.'<sup>22</sup> In this process of transformation, the notion of thick edge with the rural skin and urban masks provides the most challenging but potential condition for hybridization design strategies to flourish. The three conceptual hybridization design strategies – 'Archi-Furniture', 'Archi-Structure' and 'Archi-Infrastructure', which are generally identified as responsive principles to the three edge conditions at the rural-urban edge, needs to be carefully applied and articulated in appropriate ways that generate innovative hybrid architectural languages responding to the site-specificity rather than becoming all-purpose solutions.

## References

- <sup>1</sup> Peter G. Rowe: *Making a Middle Landscape*. Cambridge, Mass.: MIT Press. 1991. Pp249.
- <sup>2</sup> John Friedmann: *China's Urban Transition*. Minneapolis, MN; London: University of Minnesota Press, 2005. Pp26.
- <sup>3</sup> Chuihua Judy Chung, Jeffrey Inaba and Rem Koolhaas (Ed.): *Great Leap Forward*. Harvard Design School Project on the City. Koln: Taschen. 2001.
- <sup>4</sup> Duncan F M McGregor; David Simon; Donald A Thompson (eds): *The Peri-urban Interface: approaches to sustainable natural and human resource use*. London; Sterling, VA: Earthscan, 2006. Pp165.
- <sup>5</sup> Ignasi de Sola-Morales Rubio: *Terrain Vague*, in *Anyplace*. Cambridge, Mass.: MIT Press, 1995, Pp 122.
- <sup>6</sup> Paola Viganò: *La città elementare, 1999* in David Grahame Shane: *Notes on Urban Villages as Global Condition*. <http://www.arcduecitta.it/world/2012/07/notes-on-urban-villages-as-a-global-condition/> (Accessed: 03/10/14)
- <sup>7</sup> Fabrizio Zanni: *Four Genetic changes in the urban landscape*. in F.Zanni, 'Urban Design in Contemporary Society', Maggioli, Milano, Italy.
- <sup>8</sup> Adrian Blackwell: *Four Spaces of China's Urban Unconscious*. *Time+Architecture*. 04, 2010.
- <sup>9</sup> Momoyo Kaijima; Junzo Kuroda; Yoshiharu Tsukamoto: *Made in Tokyo*. Kaijima Publishing: Tokyo, 2001. Pp25.
- <sup>10</sup> Chen, Aric: *Rural Urban Framework: Hong Kong*. *Architectural Record*, Dec 2013, Vol.201(12), Pp82.
- <sup>11</sup> Chuihua Judy Chung, Jeffrey Inaba and Rem Koolhaas (Ed.): *Great Leap Forward*. Harvard Design School Project on the City. Koln: Taschen. 2001. Pp181.
- <sup>12</sup> URBANUS: *Urban Refill*. *Time+Architecture*. 01, 2007.
- <sup>13</sup> URBANUS: *Nanshan Marriage Registration Center*. *Time+Architecture*. 04, 2012.
- <sup>14</sup> David Grahame Shane: *Urban Design Since 1945: A Global Perspective*. Chichester, West Sussex: Wiley, 2011. Pp231.
- <sup>15</sup> David Grahame Shane: *Urban Design Since 1945: A Global Perspective*. Chichester, West Sussex: Wiley, 2011. Pp235.

<sup>16</sup> URBANUS: Dafen Art Museum. *Time+Architecture*. 05, 2007.

<sup>17</sup> Tulou Collective Housing. In *Implicate & Explicate: Aga Khan Award for Architecture*, edited by Mohsen Mostafavi, 160-171. Baden: Lars Müller Publishers, 2011.

<sup>18</sup> URBANUS: Urban Tulou. *Time+Architecture*. 06, 2008.

<sup>19</sup> Ruth Morrow; Mohamed Gamal Abdelmonem: *Peripheries: Edge Conditions in Architecture*. London; New York: Routledge, 2013. Pp115.

<sup>20</sup> Stan Allen: *Points + Lines: diagrams and projects for the city*. New York: Princeton Architectural Press, 1999. Pp55.

<sup>21</sup> John Friedmann: *China's Urban Transition*. Minneapolis, MN; London: University of Minnesota Press, 2005. pp117.

<sup>22</sup> Joshua Bolchover: *Rural urban framework: transforming the Chinese countryside*. Basel: Birkhäuser, 2014.