The Market as Generator of Urban Form: Self-Help Policy for the Civic Realm

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"It is impossible to imagine beings more whimsical or haphazard than the streets of Taxco. They hate the mathematical fidelity of straight lines; they detest the lack of spirit of anything horizontal...they suddenly rear up a ravine, or return repentfully to where they started. Who said streets were invented to go from on place to another, or to provide access to houses? [In Taxco] they are irrational entities...like serpents stuffed with silver coiled around a bloated abdomen: yet they relinquish, languidly swoon, and disappear into the hillside. Later they invent pretense for resuming, not where they're supposed to, but in the place that suits the indolence. ¹

Fig. 1. Church of Santa Prisca, Taxco



Through time, cities have been shaped by an infinite number of interplaying factors creating complex physical, economic, and cultural systems of organization and chaos. Although contrasting in their traditional definitions, organization and chaos are terms that acquire new meaning when descriptive of cities. What may be described as a chaotic city form may function fluidly within the dynamics of its own inner setting. In fact the "chaotic" often functions to establish the dynamics and functional mechanisms of a city. On the other hand, while a structured "scientific" approach, such as the grid, is an organizing regulator for cities; it does not methodically contribute to fluidly functional and culturally rich civic systems. Both chaos and rigid order can work to create both, places rich with social dynamics and places lifeless and empty. The evolution of cities occurs through a combination of factors acting together either spontaneously or in a planned manner, but always within a unique context.

The expressions of life in the city however, challenge the normative scientific standards, design guidelines, and artistic utopian expression that architects and planners often accept for determining building and civic space typologies and ordinances that categorize the built form into organized systems. It is inherent to the planning and design professions [because they are fields involving subjective definition and scientific nature] to establish guidelines, codes, and standards, as a means to categorize the subjective and the complex. In a sense, the production of codes in the design professions and the establishment of accepted design styles, are a means of dominance and validation of the profession which attempts to diminish ambiguity in a field in which the artistic is often diminished to an issue of taste, and the scientific is overly restrictive and mechanical.

The cultural forces nesting in the civic realm are more powerful than rigid structure; they are the life forces created by human need and executed as "subversive" interventions in the planned city by the unplanned designer. In the civic realm, the romantic definitions of the traditional elements of city making are constantly challenged by users as social trends of necessity change. Idealized plazas, streets, and building typologies continue to be designed by professionals and taught in universities in prescriptive formats unsupportive of the dynamics of a multicultural/multi-economic world.

In the city of Taxco in Central Mexico, the combination of the new and the old cultural and economic trends expresses itself at every corner. The small town originally wrought by climate and currently driven by economic need, has grown to host an extensive tourist population that arrives with

Fig. 2. Steps used as market space, Taxco.



Fig. 3. Descending street used as market space, Taxco.



an inherent expectation to experience the traditional—the rolling hills of terracotta roofs, the narrow streets of human scale, and the plaza of Spanish order. Together, these elements make the stage for the majestic cathedral of Churrigueresque ornament that tells a history of Spanish influence and Mexican tradition. The small town of Taxco is a perfect case study for analysis of a romanticized city form whose traditional urban elements are being challenged as emergency architecture transpires and materializes on the streets.

Taxco's urban transformations are deeply rooted in history and culture, and are ultimately expressed through the informal economy. The market space becomes the clearest physical expression of the economic and cultural base as its redefines the traditional urban forms, particularly the street as an artery of connection and the plaza as a space of gathering. The merchants' survival activities migrate from a building typology to becoming the street itself. In Taxco, the market that flows through the organic streets, transforms the traditional street into a place of social, cultural, and economic collision that promotes a space of urban vitality and rural tranquility. In Taxco, the traditional plaza gets replaced as the true space of gathering and social interaction, and the street dissolves to house this urban activity.

BACKGROUND

Origins

Taxco has its origins in pre-Hispanic Mexico as an Indian site of mineral exploitation, 12 kilometers from its present day location in the state of Guerrero in central Mexico. As one of the oldest towns in Mexico, Taxco became famous for its rich mineral deposits even before it was conquered by the Spanish in 1445. One report even claims that there were "beds of silver being mined by the Aztecs." ² Soon, the Spanish conquerors discovered the rich mineral deposits, and by 1529 the present town originated with a new settlement called the Real de Taxco.

Adding to the mining development accomplished by the viceroyalty, New Spain established a route to the Philippines and Asia from the Mexican Pacific coast thus completing the original vision of Columbus. The connection of the maritime route to Asia was established in the Bay of Acapulco for

Fig. 4. Church of Santa Prisca, Taxco



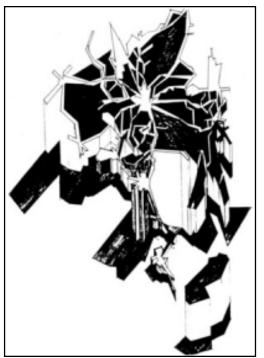
its proximity to Mexico City. Taxco, located along the route from Mexico City to Acapulco was to become a convenient stop along the way.

Religion and Tourism

"God gives to Borda and Borda gives to God" 3

Jose de la Borda, a self-made miner and respected citizen of Taxco who arrived from Spain at the age of 17, participated in the mining development of the town. After attributing his success to God, he sponsored the construction of Taxco's central cathedral, the Santa Prisca, begun in 1748 and fin-

Fig. 5. Organic urban study of city growth in Taxcopencil drawing



ished in 1758. The Santa Prisca is a major point of interest for the visitor coming to Taxco.

Mexico's political move towards independence, and the end of the Spanish colony at the beginning of the XIX century meant the collapse of the economic and trade structures that made Taxco so important. After a century of being dormant, the opening of a road from Mexico City to Acapulco brought travelers to Taxco. Among the people attracted to the beautiful hill-town, were Mexican painters David Alfaro Siqueiros and Diego Rivera; as well as American professor William Spratling, who revived Taxco's silver fame by leading the town into the development of fine silver craftsmanship.

Since then there have been two new routes opened to the sunny beaches of commercial Acapulco. One of them, opened in the 1960's, allowed for a six hour travel time from Mexico City to Acapulco. More recently, a three-hour toll road has opened, leaving Taxco outside this most efficient tourist route. Taxco remains a treasure visited by tourists, but a culturally respected rural town.

GENERATORS OF URBAN FORM

General

The town is dominated by architecture of vernacular flavor and an urban attribute that blends form and scale to create a cozy, yet majestic atmosphere. The tile roofs closely packed against each other give a small-town quality, even though they correspond to buildings with as many as five stories. They are so tightly woven together however, that a uniform subdued scale is maintained. The main physical elements of the town are massive whitewashed walls [often adobe construction, or masonry], openings of vertical proportions, individual balconies, and a location high in the hills. The cobblestone street structure follows the patterns of medieval mining towns on hilly terrain, adapting with irregular geometry to the land contours. Some streets are as narrow as nine feet across to allow a single car to pass through; others are solely for pedestrians. The town's center of formal activity is the Plaza Borda, which is the main square enlivened by the church of Santa Prisca.

Religion and Economy

After the Santa Prisca was erected on the main square, this already prominent center became the

pivot of all main arteries, and the reference landmark for visitors overwhelmed by the intricately winding venues. For the visitor touring labyrinthine Taxco, Santa Prisca becomes the tour guide. At the mere turn of a corner, disorientation ceases with a quick glance at the monument. For the native, Santa Prisca is the constant reminder of God. No matter how hidden however, every space enjoys a glimpse—whether a clear view, framed by the streets, or through a window. It is not ironic that in Mexico, religion is the "guiding light" to find-*Fig. 6. Plaza Borda, Taxco*



ing one's self.

As in many urban settings of the world, economic need [in this case in the form of tourism], has amended the meaning and use of this majestic building type. Once the landmark of religious significance erected to express spiritual importance, is now also a tourist attraction, a meeting point, the landmark of tourist transportation, and the marker of upscale hotels and restaurants.

UNCOMFORMING ROLES OF TRADITIONAL ELEMENTS OF URBAN DESIGN

The Plaza

Taxco is a small town profiting from a tourist population as a means to survive. Although the cultural riches and geographic location of Taxco have prevented this town from becoming a purely tourist resort, the local government does seek to please its visitor by regulating the uses of the Plaza Borda in front of the cathedral. This plaza serves as the welcoming face of Taxco and becomes the tourist hub. Nonetheless, this plaza is also the largest public space [conveniently located on a compact plateau] with the potential to house the vendors that are now restricted from the use of the plaza as a means to preserve the historic look of this traditional urban element.

The Street

The "traditional" streets of Taxco exist as narrow cobblestone arteries of human scale, flanked by courtyard buildings escalating down the steep terrain. The street is the initial result of climate and topography, a factor that gives character to the town. In the early days of Taxco, rain made a print on the land as it ran down the hills to become the guideline for the current street formation. The hilly terrain further informs the building typology by limiting the ground area on which construction is feasible given expensive foundation work and retaining walls. Consequently, every fraction of land is highly valued and maximized through the continuous vertical layering of construction that occurs. The traditional courtyard typology therefore becomes irregular in nature and in constant state of meta-



morphosis.

Fig. 7. Market space occupying street, Taxco The adapted typology works for the provision of light, ventilation, preservation of heat, and shaded spaces for the user. 4 The residual space in-between dense building mass, like cracks in a solid volume, become the narrow streets of vertical inclinations protected from the sun with privacy and tranquility achieved by a street with the scale of a room.

THE MARKET AS A GENERATOR OF URBAN FORM

The inhabitants have marketed the natural riches of its silver mines and crafts in an alternative market space that physically beautifies the environment through the use of spontaneous architectural elements. The beauty and richness of the market program as an urban element lies in the power of the people to accommodate to and shape its cityscape without restructuring its basic forms and building types.

Economic need leads individuals to develop a market system that will provide a means for living, and although specifics are culturally rooted, many communities deal with their economies universally in that the "economic" leads to the improvising of spaces in the city. However, the market is a universal program with cultural ramifications, making the urban result

Fig. 8. Use of uniform tents for vending, Taxco



vary tremendously from place to place as culture and city form shape one another.

Taxco is an example of a society strongly attached to its cultural ramifications; yet it attempts to keep up with a changing world by adjusting and manipulating its cultural values into marketable ones. In the market, the venues become a space of navigation in which people enter to circumnavigate the town. The space soon becomes one of collision in which people are bound by common need. Within this space a complex set of social interactions occurs in which an aggressive means of involving the buyer, and a retaliating buyer, become mutual activators. Haggling, physical contact, and loud verbal calls in diverse pitches, maintain powerful cultural dynamics allowing for the reduced space condition.

In lack of the plaza as a place to house the increased need for economic exchange, the primary urban element of the street gets challenged to house the activity that often happens in a building form or on the plaza. The street becomes articulated to displaying and housing the user's and the vendor's exchange—critical in the formation of an architectural system allowing for organized fluid interaction.

The social interaction between the merchant and the buyer usually occurs in a somewhat rushed manner in the limited width of the street. This in turn provides forms of signage, display, and exchange, to become most clever and effective in leaping out at the passerby. As the quick flow continues, the user is faced with these elements as if caught in a pinball machine. Alertness and agility become essential in understanding the rules of the space as one flows through the newly formed

Fig. 9. Market space occupying street, Taxco



"mechanism" and collides with different centers of activity to be swiftly sent forth into others.

THE TENT: TEMPORARY ARCHITECTURE

The government of Taxco has in the past attempted to regulate and rid the streets from the informal economies because of traffic congestion, however it did not take long to realize that it is this social expression that give Taxco a charm greatly attracting tourism. In a smart effort to regulate the mechanisms present, and as a means to alleviate problems of congestion, the government of Taxco has zoned many streets for the use of the market. Furthermore, it has provided blue plastic tarps to registered vendors. The simple solution of the blue tents for protection from the elements, invigorates the environment by orchestrating a spontaneous layering of vendors trickling down the commercial artery. In many instances, the people have improvised other methods of sheltering by creatively adding elements that become attachments to the existing infrastructure. Because these addenda are not part of the initial planning of the street, but rather an improvised articulation to fulfill socioeconomic needs, the results adds an order culturally and socially loaded.

Although government also offers support to the establishments of formal commercial locales along the main streets framing the Plaza Borda, the majority of the market occurs as an appropriation of the secondary streets. The need to maximize the space, no matter how small or seemingly inadequate, becomes obvious when traditional urban elements such as steps, walls, and roofs, become valuable spots to start business –every step, every wall, and every door or window, is potential street furniture. An old woman finds enough space along a rundown wall that shelters one of the main staircases to a covered indoor market. Her goods are conveniently located on the ground obstructing the main access.

ABSTRACTING CULTURE INTO URBAN ELEMENTS

The site restrictions establish a strong set of guidelines for the visual appearance of the town—from the organic layout of the streets and open spaces, to the building form. Once in place, the slope continues by gravity to shape the city's function. When navigating the streets, gravity rushes one along Fig. 10. Abstraction of corn hanging on a fence, Taxco



when descending, and slows one down when ascending. The narrow street that funnels the large pedestrian flow is speeded along by topography that in turns contributes to the quick mercantile exchange that by nature takes place. Consequently, the way that goods are displayed and grouped together to engage the user becomes vital to the transformation of the street. Often times the merchandise leaps out at the passerby in invading manners forcing the buyer to duck around it.

The diverse nature of the goods being displayed tightly together in limited space, adds rich complexity to this urban vending system. It directs the buyer to the extent of altered perception when the dynamic space becomes so dense with the mixture of objects, that the objects themselves become momentarily abstracted to the eye and perceived as an order of forms that, in congruent state with one another, appear as a larger structure with defined subspaces functioning as barriers, boundaries, shelter, and signage, all in a meeting space of cultural collision—walls, edges, buildings, scale, and the order of the civic realm.

Compositional elements such as color, patterns, and materials play a part in defining a specific culture. Different cultures employ specific combinations; nonetheless, similar spatial orders reoccur across the different groups. The argument can therefore be made that the orders of these patterns reoccur in the city to create spatial elements recognized by designers. The culture specific function that often overwhelms planners and architects is in fact a space-making element.

If we were to abstract the shapes of the goods displayed in a Mexican market for example, we would find that when you take the identifying factor away from the goods, we are left with the set of elements common to many markets of the world—fuzzy random shapes of similar colors, and with similar methods of display. If one abstracts the human perception by blurring the view to be unable to identify objects' specificity, spatial elements appear. When taking the identity of the products away, shapes become abstract forms that can then be part of many different cultures.

Individual objects, when abstracted together may visually form larger space defining elements. A broom for example, when displayed hanging by itself may transform when abstracted into a vertical strand. When a series of brooms are displayed together, the abstracted form may be read as a curtain wall made of individual vertical strands–a temporary wall, establishing spatial boundaries. This abstraction that makes objects temporarily cultureless is only a way to assist the profession to overcome its fear of culture in order to see form. The specificity of the object is always present as the architect then observes the dynamics of these spatial transformations to discover function.

CONCLUSION: SELF-HELP POLICY

Fig. 11. Woman selling goods by appropriation of the street, Taxco



"What a same! The form of a city changes faster than the heart of a mortal" Charles Baudelaire

As traditional elements of the civic realm-the plaza, the building, and the street-get challenged from their original conception by economic and cultural elements like the market space, the regimenting mechanisms that regulate architecture and design have a responsibility to change and adapt to growing complexities that shape the built environment. Multiplicity of elements call for flexibility in regulation, not added rigidity. The city of Taxco shows an approach to planning and design that acknowledges the everyday forces of living that cannot be contained. It goes on to establish rigid order where deemed necessary for the larger economic tourist factor, but is then ready to apply flexible policy-self-help policy for both the architectural and urban scale.

There are two approaches to policy design in the regulation of the civic realm. One approach is planning-based and deals with legalities and conventional planning models as master planning templates for urban design. The other approach is form based, and it deals with the specific physical restrictions on the building. Neither of these two approaches works because they are often solely based on theoretic utopian thinking, artistic aerial geometries, or statistics-based formulas—most of which are dismissive of specific contextual conditions.

A third approach to consider may be a self-help planning methodology working under fundamental parameters of socio-specific scenarios driven by economic need, and stimulating of economic growth. The asset and untapped resource at hand is people's resourcefulness in times of need. Human beings are by nature survival mechanisms. Need leads to the most creative urban solutions. In countries like Mexico it is true that an extreme economic condition already exists, and a dynamic of survival is abundant in the everyday, making survival architecture more common-place and to a certain extent inevitable. In the largest cities of the United States however, there is an explicit presence and impact of a collision of extremes at every level of society. The seizure and abandonment of urban space is ever more aggressive at attacking the artistic intervention devoid of meaning, and the scientific solution devoid of function.

The approach can have two fundamental premises to start—Self-Help Zoning, and Self-Help Architecture. The first may begin by identifying zones targeted for economic growth, and by an assessment of zone specific programs rooted to the communities in question. 5 Regulated allowance of these programs may then serve to structure already existing civic activity by allowing individuals to economically grow through self-help tactics that can visually enhance the city.

In Taxco for example, the user does not compromise the aesthetics and order of the town; instead, it complements it. Codes are tightened to maintain the main plaza's physical holistic perception. Yet, the flexible regulation allows for the spillage of the cultural market into the transformation of other civic forms like the street. The regulation that calls for the uniform tent color of vending stands makes for a cohesive order for a complex variety of spaces that create rhythm throughout the street.

At the smaller scale, Self-Help Architecture is a branch of construction that is already in place, but that needs building legitimacy to flourish as a creative art and science. Self-Help Architecture is a branch of design for which regulation needs to exist in order to allow the creative solutions of the city to evolve. Self-Help architecture calls for building codes designed for emergency architecture [that may be of temporary nature] rather the rigid codes that account for structures with a high level of permanence.

In this manner the government of Taxco seeks not to prohibit, define, design, or scientifically dictate public space or building form, but rather to assist and promote self-help tactics that compliment and transform the historically established forms of ar-

Fig. 12. Use of uniform tents for vending, Taxco



chitectural design, the civic realm and the science of policy making—a technique at minimum cost and with maximum return.

In this manner, the urban and architectural professions call at the professional and academic level for re-structuring and redefining the artistic realm, with the scientific realm. This articulation has to happen by amalgamating the connection with broader areas of understanding informed by the social sciences and implemented through supportive policy-making.

The established parameters for re-thinking form and civic space rely on developing criteria to dealing with the difficult issue of culture as a means to create architecture and civic space. Architecture and planning often feel threatened by the study of culture, sociology, psychology, and anthropology, under the wrong assumption that it inhibits the production of architecture and functional cities. Redefining the profession into a current reality of growing complexities is inevitable and requires rethinking of the process of policy making that ultimately regulates buildings, urban design, construction methods, use, and adaptations. Rigid forms of codes and regulations only promote the continued glorification and romantic idea of spaces appealing only in their conception, but devoid of meaning and life of the everyday.

NOTES

1 Toussaint, Manuel. Taxco, Guia de Emociones. Pg. 13 2 Estrada, Juan. A Short History of Taxco. Mexico D.F. 1995

3 Popular saying, Ibid, p 35

4 Although Taxco has mild weather conditions, protection from the heat in the summer and its preservation in the winter make the traditional Spanish courtyard a suitable building typology. The heavy masonry walls that form the courtyard building serve as thermal mass to maintain cool spaces during the day and warm interior spaces at night. Although true that the considerably tall 5-storey building would make the courtyard and lower floors unable to benefit from the sun, this traditional architectural building form is challenged as the building mass gets shaped by additive and subtractive means that give way to multiple court systems within the building thereby making the courtyard typology directional as it seeks the sun. Furthermore, the hilly terrain stops buildings from blocking each others' sunlight.

5 Although it is true that zoning could in this scenario become policy that may further "segregate" communities, in actuality communities in fact stay together""united" through common efforts and joined by cultural commonalities rather than""segregated". What the mainstream calls segregation is in fact often a strengthening factor crucial to the survival of communities.

PHOTOGRAPHS

Fig. 1-12. By author

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