

# ENVIRONMENTAL MISFITS : A CASE STUDY OF BATASAN HILLS

*by Nicolo Del Castillo*

## **Introduction**

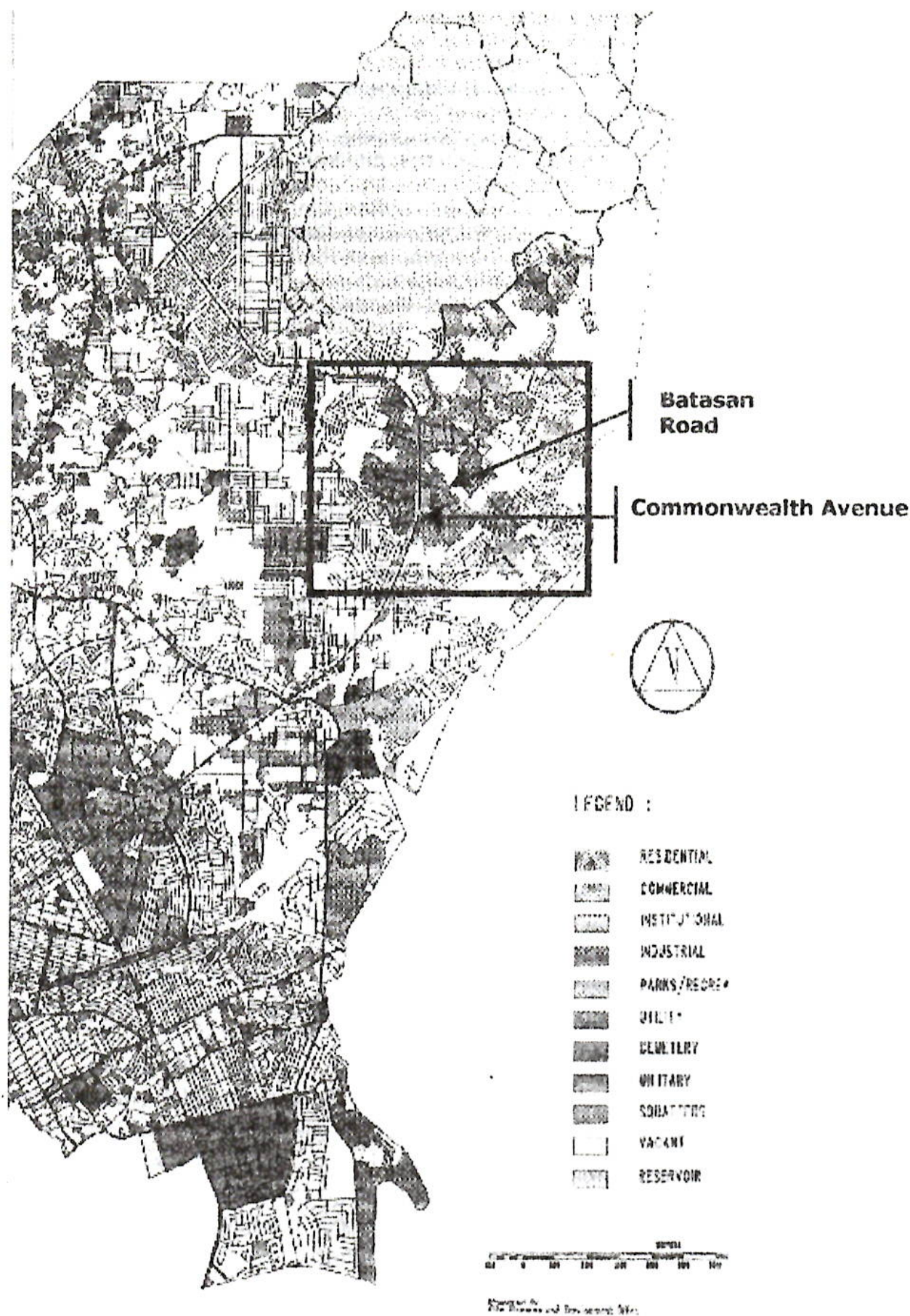
In this paper, I aim to find issue or issues in the state of design standards in our environment. To do this, I have chosen to focus on the relationship between environment and behavior, and see if there are misfits or incongruities between environment and behavior.

The use of the term "*environmental misfits*" means, for the purposes of this paper, a conflict between a designed environment and the behavior that takes place in that environment. In any habitable environment, people are affected by it and/or affect it, in more ways than one. In architectural design, this "symbiotic" relationship<sup>1</sup> is heightened by the fact that designers assume human needs and behaviors and consequently shape or design the spaces where these behaviors should or would take place. However, sometimes assumptions are wrongly or weakly made and it is here that we notice the phenomenon of a *misfit* between behavior and environment.

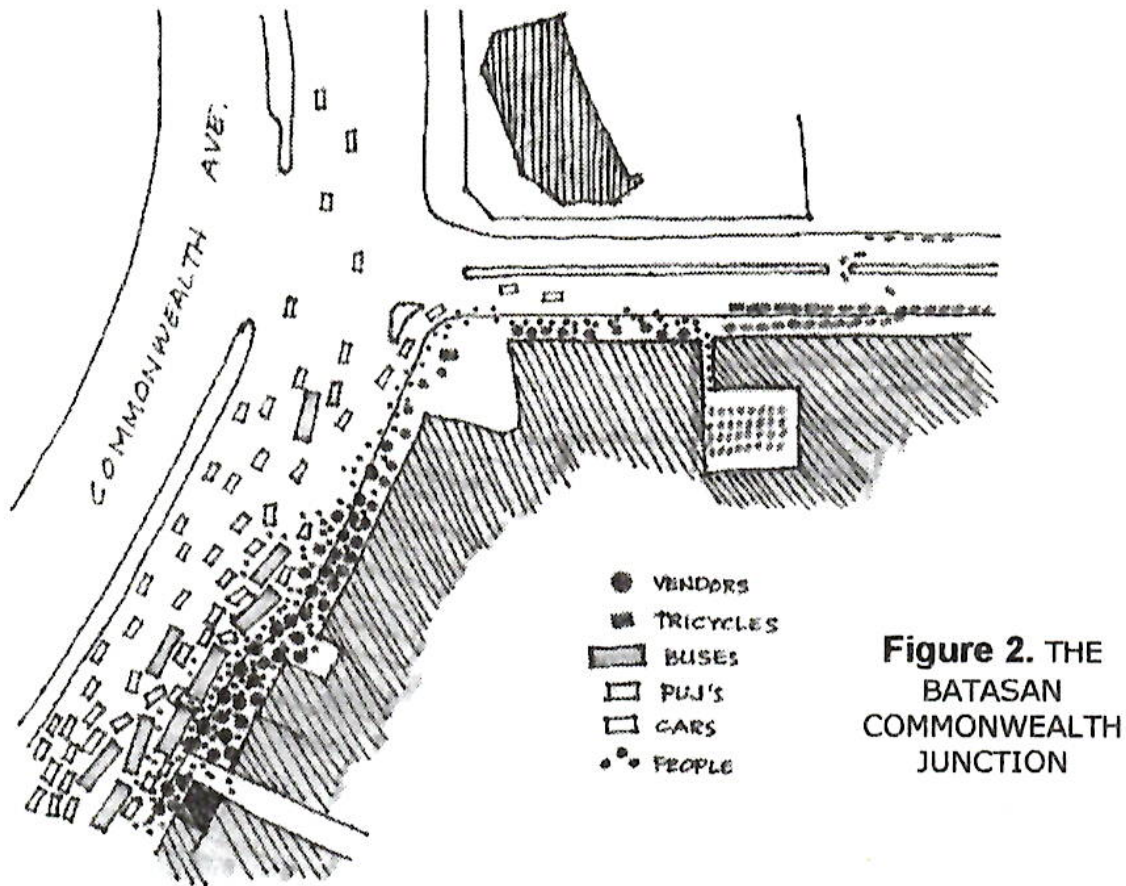
As early as the 1960's, observations were made regarding this phenomenon of misfits between environment and

behavior. These observations were made by social scientists at the time when the edicts of the Modernist Movement were being seriously questioned. Environment-behavior studies (EBS) became a new multidisciplinary field in response to the clamor for a more socially responsible approach to planning and design of the environment.<sup>2</sup> Environment-behavior studies has since been known by other names such as people-environment research, environmental psychology/sociology, or environmental design research. According to Moore, Tuttle & Howell (1985), environment-behavior studies is "the study of the mutual relations between human beings and their physical environment at all scales, and applications of the knowledge thus gained to improving the quality of life through better informed environmental policy, planning, design and education". Since EBS includes applications of knowledge gained, it becomes a useful tool in informing design decisions at all levels and scales of the environment.

Having defined EBS, it becomes quite apparent that in relation to it, the design process as it is practiced in the country is linear, starting with the



**Figure 1.** EXISTING LAND USE MAP OF QUEZON CITY (boxed area shows Batasan Hills courtesy of Q.C. planning office)



**Figure 2. THE  
BATASAN  
COMMONWEALTH  
JUNCTION**

conception stage and ending with the finished building or environment. In presenting a case study on a local urban problem, and focusing on the environment-behavior relationship, this paper will show how this linearity contributes to the incongruities in our environment.

### **Quezon City : Existing Land Use**

The case study area is Batasan Hills, which is situated in the northeastern part of Quezon City (QC), a predominantly residential area with significant pockets of institutional zones.

Batasan Hills was originally intended to be a major institutional center with the State Legislature as centerpiece. However, government neglect and change in priorities has left the area to be overwhelmed with squatter

communities. Today, Batasan Hills has become the squatter capital of QC.

### **The Bottleneck at the Batasan- Commonwealth Junction: A Recurring Urban Theme**

For quite a few years now, during rush hours, the junction of Commonwealth Ave. and Batasan Road has become a commuters', and motorists', nightmare. Dozens of public buses and jeeps converge on this junction to load and unload passengers, resulting in a bottleneck for vehicular traffic. This scene is often repeated in many parts of the city and in the whole of the metropolis that it has become a recurring urban theme.

Primary observation gives us three (3) major reasons (illustrated in **Figure 2**) why this problematic situation occurs: The bus/jeepney stop area can

not simply accommodate the huge volume of public utility vehicles (PUV's). Therefore, the PUV's use up even the lanes not intended for stopping.

1. A *talipapa* or makeshift market operates within the confines of the bus/jEEPney stop and is apparently tolerated by the local government. The vendors occupy most of the sidewalk thereby forcing pedestrians to walk on the carriageway. This further reduces the usable space for vehicles.
2. A tricycle terminal is also situated along Batasan Road near this junction. The tricycles take the pedestrians to the innermost areas of Batasan Hills. Since this junction is a major transport node, the huge volume of tricycles further constricts the passageway for vehicles and pedestrians along Batasan Road.

The numerous interventions made by local government and traffic authorities on the junction all seem to have failed. Moving the bus/jEEPney stop away from the junction only resulted in the transfer of the bottleneck. Organizing the vendors to have a semblance of order only encouraged more vendors to proliferate in the area resulting in further congestion.

Obviously, the authorities had mistaken a few trees for the entire forest. In order to understand the problems of this junction, one must look at the junction in a bigger context: as an urban node, a focal point of a larger urban setting. That urban setting is Batasan Hills.

### **Batasan Hills: A Closer Look**

Seeing that the junction is a major transport node, and a major urban node at that, it is only proper to understand the dynamics of people and vehicular movement in Batasan Hills as a whole.

Batasan Hills was once an institutional zone reserved for important government offices such as the Legislature and the various executive branches of government. The State Archives was also planned to be located here. The areas immediately around the government center were planned for residential development with the government workers and executives as primary clientele. However, years of political turmoil and policy changes have rendered the planned national government center (NGC) just that --- a plan, a dream. Today, after years of neglect, Batasan Hills has become a highly residential area dominated by squatter colonies that occupy idle government land. Awarding portions of the NGC to squatter groups to stem their ceaseless encroachment onto government property has only encouraged squatter groups to proliferate and expand their communities.

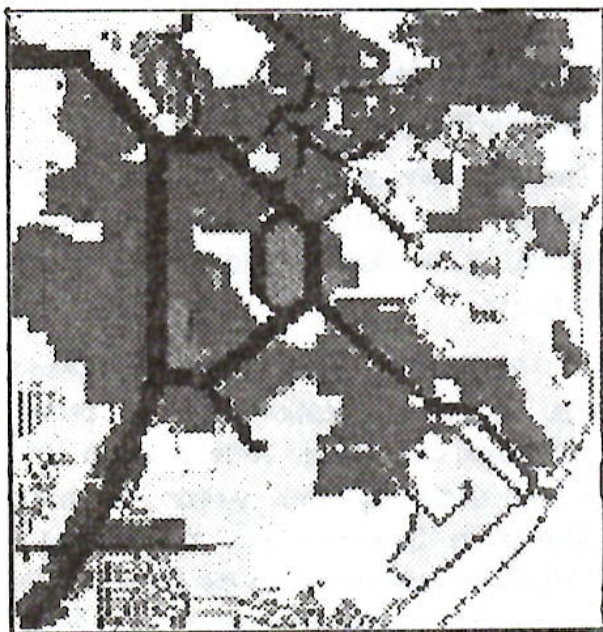
**Figure 4** is a pixelized rendition of the existing land use at Batasan Hills and shows just how much area of the NGC has been dominated by squatter colonies. The dark gray areas correspond to the squatter areas. The gray areas indicate the legitimate residential areas while the light gray areas outline the institutional areas.

Batasan Road is horseshoe-shaped, forming a loop around the Batasang Pambansa (State Legislature). This road layout makes Batasan Road a collector road for all the inner roads at Batasan

Hills as it is the only route that connects to Commonwealth Avenue. There are no other alternative routes for residents of Batasan Hills to take other than Batasan Road. This makes the junction at Commonwealth Avenue a major urban node. It is the transfer point from the main commuter lines to the feeder commuter lines -- the tricycles. The process of transferring or changing modes of transport thus becomes a vital part in creating a solution for the bottleneck at Batasan - Commonwealth. This process is largely behavioral in nature and therefore needs to be treated as such.

### **The Batasan-Commonwealth Junction: A Behavior Setting**

A behavioral setting is a basic unit of analysis of the interactions between people and their environments.<sup>3</sup> It is characterized by a pattern of behavior, the physical setting where the behavior takes place and is directly linked to that behavior, and the time frame within which the behavior occurs.



**Figure 4. BATASAN HILLS, EXISTING LAND USE**

The term "behavior" as used in this paper does not intend to mean the internal processes that take place in a person's mind. Behavior, here, shall only mean the observed actions of people or a person in a setting.

The Batasan-Commonwealth junction can be seen as a behavior setting with the following characteristics:

1. Patterns of behavior of users
  - a) Waiting for a ride along the roadside;
  - b) Embarking / disembarking from a vehicle;
  - c) Moving from bus/jeep stop to the tricycle terminal;
  - d) Moving from the tricycle terminal to the bus/jeep stop;
  - e) "Shopping" for, or inspecting, goods being peddled by vendors; and
  - f) Buying or negotiating with vendors;
2. Physical features
  - a) The bus/jeepney stop: actually a designated area for loading/unloading passengers of PUV's;
  - b) The sidewalk, not necessarily paved, where movement of pedestrians are intended to take place; it is 6 meters at its widest, including the undeveloped areas reserved for road expansion, and 1.2 meters at its narrowest along Batasan Road; and
  - c) The tricycle terminal where pedestrians take their rides to the

inner areas of Batasan Hills; the terminal is about 200 sq. m. set along Batasan Road.

- d) The *talipapa* stalls where goods, ranging from meat and fish, fruits and vegetables to dry goods such as clothes and jewelry, are sold.

### 3. Time frame

Although the behavior or range of behaviors takes place throughout the day, it is during rush hours (5 - 8 p.m.) that the situation becomes critical.

The behavior setting is so complex that sub-settings can be further extracted and analyzed to have a more manageable set of information. It must be reiterated though that these sub-settings are intrinsic parts of the whole behavior setting. This paper further focuses on three sub-settings where most of pedestrian interaction occurs: the *talipapa*, the sidewalk and the tricycle terminal.



#### **SETTING: Talipapa: The Mobile/ Impromptu Market**

The *talipapa* is a mobile and informal market system of loosely organized

vendors. The stalls are lightweight and simple for easy disassembly. The lightweight construction of the stalls are due to the fact that the stalls are erected on "illegal" areas and are meant to permit quick and easy transience.

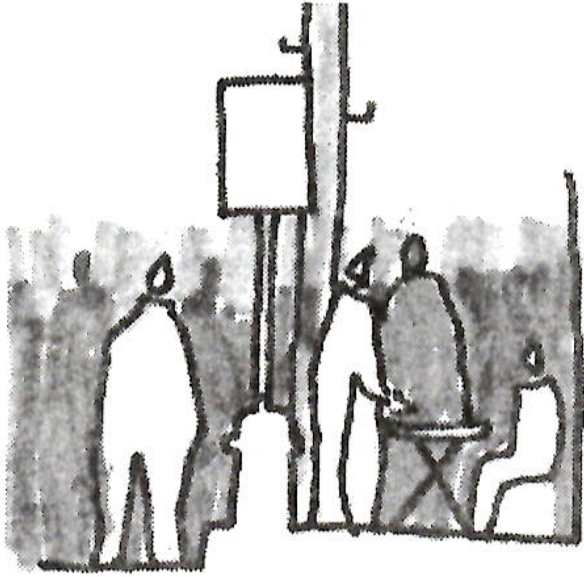
It is the low-income earners, who cannot afford goods sold in an otherwise legitimate venue, who sustain *talipapas*. Although in the context of Batasan Hills, a legitimate market is a mere 2 kilometers away from the junction, patrons of the *talipapa* still favor it because the travel to and from the legitimate market will cost them PhP 5.00. Thus the *talipapa* spells convenience for its patrons as it is right along their route to and from home.

The *talipapa*, to remain viable, must be highly visible, along major pedestrian routes and should provide the basic needs of food and clothing. In occupying public spaces, *talipapa* vendors "borrow" space from the public with the excuse of providing a "public service". Inaction by government seems to acknowledge its own shortcomings, hence, the apparent condoning of the practice.

#### **SETTING: The Sidewalk: Where People Walk Sideways**

The sidewalk is the actual environment where pedestrian movement takes place. It is also the ideal site of the *talipapa*.

In Batasan Hills, however, despite the huge population being served, sidewalks are never wide enough. In a study done by this writer on public spaces in Quezon City<sup>4</sup>, the design of sidewalks was found to be unresponsive to the actual use and demand for such a public amenity. The design of sidewalks is governed by building regulations that



### **The Marginalization of the Tricycle**

Tricycles service the bulk of the residents of Batasan Hills. The tricycle acts as the feeder vehicle to main public transport routes. In the absence of a secondary public transport system, entrepreneurs step in to fill the gap; voila, the tricycle.

Again, government seems to acknowledge its incapacity to provide this basic service by granting permits to operate to tricycle owners and drivers. However, given the convergence of people and traffic at the Batasan-Commonwealth junction, no adequate loading-unloading area or a terminal for tricycles is ever provided.

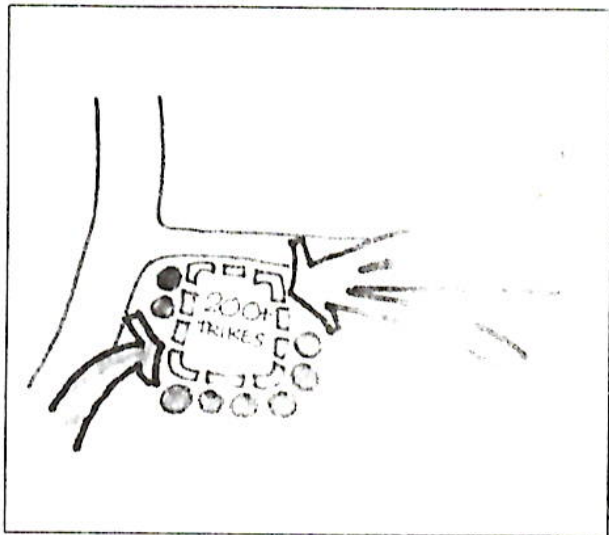
The tricycle terminal used to be located right at the junction. However, since this only constricted vehicular traffic along Commonwealth Avenue, it had to be moved further inward, away from the junction. A small lot was given to the operators but it remained inadequate to accommodate the whole fleet of tricycles that service Batasan Hills. The surplus overflows onto the streets and sidewalks, again constricting the passageway for vehicles and people.

### **SETTING: The Tricycle Terminal as Urban Node**

In the light of circumstances regarding people movement in Batasan Hills, the tricycle terminal should now be seen as an urban node. From the numerous communities around Batasan Hills, people brought by tricycles converge into the Batasan-Commonwealth Junction to transfer to main transport routes. Indeed, there are easily 200 tricycles at the terminal during rush

merely define sidewalks as mere proportions of the street. No consideration whatsoever is mentioned or implied as to the use and demand of the sidewalk. Moreover, no space is officially designated for public utilities and street furniture such as street signs, lampposts, and fire hydrants. This results in severely constricted sidewalks, forcing people to walk on the carriageway or to literally walk sideways to avoid the obstructions that litter the sidewalk. In addition to the regular obstructions, the sidewalks in Batasan Hills have the ambulant vendors to accommodate, further constricting pedestrian passageways.

In response to the bottleneck at the junction, government decided on widening the road or carriageway to ease vehicular traffic. Without widening the sidewalk, the resulting behavior only seemed to render the move futile as it was, ironically, the pedestrians -- faced with a lack of movement space -- who took over the newly widened road.



hours, discounting those tricycles already plying the streets. Because of the convergence of people in the tricycle terminal, its surroundings become natural choices for vendors to sell their wares, relying on impulse buying.

These conditions point to the need for a "mega-terminal" that can accommodate the tricycles, the pedestrians and the accompanying activities that are inherent in a culture or lifestyle such as that found in Batasan Hills, such as a *talipapa*.

### Institutionalizing "Chaos"

The intricate interdependencies of people of Batasan Hills, the tricycles, the *talipapa*, the roads and vehicles may have its roots in the planning standards that regulate human settlements. A survey of these regulations<sup>5</sup> reveal a list of issues suggesting a lack of sensitivity to real conditions.

1. Transportation is not listed as a basic human need.
2. The 10-km. prescribed maximum distance to schools, markets and transport routes is not qualified as a distance to be measured two-

dimensionally or in real, three-dimensional conditions.

3. The width of sidewalks are prescribed depending on mere proportions of roads without any pedestrian use rationale.
4. The term "community facilities" is not thoroughly defined and is therefore, by default, left to the interpretations of developers.
5. Housing settlements are encouraged to be integrated into the "total development context". Government, however, does not specify the development context for a district or neighborhood. Quezon City, for one, does not even have an approved land use plan.

Given the vagueness of housing regulations and lack of strong development directions, it now seems that chaos or disorder is an institutionalized policy of government. And that the bottleneck at the Batasan-Commonwealth Junction actually is the way things were meant to be...

### The Tricycle and *Talipapa*: Natural Consequences of Poor Planning / Design

Having pointed out the inadequacies of planning standards and having stressed the importance of the tricycle and the *talipapa* to the everyday life of low-income dwellers, I then venture to state that the tricycle and the *talipapa* are actually natural consequences of poor community planning and design.

Witness that:

1. Unwalkable distances necessitate a means of transport.



2. The absence of a transport system to fill a need leads to improvisation, hence, the tricycle.
3. Current design standards are insensitive to lifestyles of low-income households. Daily wage earners do not have the capacity to stock up on food and supplies. Their meager incomes dictate the behavior of buying or shopping on a daily basis.
4. "Marketing" (buying/selling or the act of going to market) is a legitimate, important activity, especially for daily wage earners. A venue to hold this activity becomes an important community facility, hence, the *talipapa*.

#### A Basis for "Chaos" and "Order"

If the current situation at the Batasan-Commonwealth Junction is deemed an undesirable situation, what then should be done about it? I have presented the junction as a behavior setting or a set of behavior settings and discussed the underlying problems of each. The initial assumption was that there must be an underlying behavioral reason for the chaotic conditions observed. However, further analyses translated these behaviors as natural consequences of the interaction between people and their environments. Then, perhaps the problem may be environmental rather than behavioral in nature.

This brings us to the issue of design and planning standards and how they respond to behavior.

- Design and planning decisions are based on premises of performance or action by users in the environment provided. This means that a planner



**Figure 4:** The overflow of tricycles from the terminal occupy the Batasan Road and its sidewalks.

or designer anticipates or predicts certain behavioral patterns in the environment being planned or designed.

- If design standards are violated by an incessant behavior, what should be changed? What was the basis of the design standards in the first place?
- Behavior and environment, therefore should be an ongoing dialogue. Designers, planners and policy-



**Figure 5:** The tailend of the overflow is seen at Filinvest Road, leading to Batasan Road.

makers should be able to perceive this dialogue and adapt standards and regulations for environments to be "in tune" with behaviors.

### **Environment-Behavior Studies: Informing Design**

Problems or misfits between environments and the behavior of people have spawned a new field of endeavor called environment-behavior studies (EBS). It is about:

- Studying the mutual relations between human beings and their physical environments at all scales;
- Highlighting the physical contexts for human experience and behavior;
- Studying the impact of environments on people and vice versa; and
- Multi-disciplinary by nature and by necessity.

In short, EBS aim to inform design in order to be more responsive and sensitive to human needs.

### **Conclusion: Changing the Design Process**

The apparent disorder in our cities and towns can ultimately be blamed on a design process that is linear, where a designer assumes behaviors and situations and prescribes designs to fit these assumptions. These assumptions, however, are heavily reliant on the designer's appropriation of data without the benefit of validity. If a design fails, the reasons for failure are never fed back to the designer.

If design were a cyclical process, with a feedback mechanism in place,

designers would have the benefit of firsthand information about the effect of their decisions on the behavior of people and are thus enabled to improve on their designs. It then becomes a true conversation with the environment and human behavior.

Clearly, planning and design standards, rules that prescribe how whole towns and communities shall live lack sensitivity to cultural and behavioral norms. I have shown that the fundamental reason behind undesirable phenomena such as the bottleneck at the Batasan-Commonwealth junction does not have anything to do with people's behavior.

In fact, it is the lack of a theory or philosophy of community design that has led to such environmental problems. Theory of community life and design can only be formulated with actual evidence of the patterns of behavior within communities. This can be done through the field of environment-behavior studies or through a change in the design process where design becomes a cyclical process of prediction, production, evaluation and prescription.

This change in process will also mean a change of attitude by the designer, from that of being the genius-hero to that of collaborator.

### **ENDNOTES**

<sup>1</sup> Symbiosis: the living together of different species of organisms. (From The New American Webster Handy College Dictionary) Here, the built environment is seen as a living organism.

<sup>2</sup> Gary T. Moore, D. Paul Tuttle, & Sandra C. Howell, Environmental Design Research Directions: Process and Prospects (New York: 1985).

Providing Penalties for Violations Thereof. 1976.

<sup>3</sup> Coined by psychologist Roger Barker

Republic of the Philippines. Presidential Decree 1096. National Building Code. 1991.

<sup>4</sup> Nicolo Del Castillo, "An Assessment of Quezon City Public Spaces: How They Serve the Public" (unpublished paper, UP College of Architecture, 1998).

<sup>5</sup> PD 957: Regulating the Sale of Subdivision Lots and Condominiums, Providing Penalties for Violations Thereof, 1976.; BP 220: Standards and Technical Requirements for Economic and Socialized Housing Projects in Urban and Rural Areas, 1982.

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