URBAN FRAGMENTATION: RELATION OF THE LAND USED AND THE DISCONTINUATION OF TRANSPORT

CITIES FOR US
engaging communities and citizens for sustainable development

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INTRODUCTION

• Analysis of disorganized growing in the suburbs areas in the city that are in risk.

• The urban fragmentation in Quito - Ecuador.
URBAN FRAGMENTATION

Urban fragmentation is the result of the addition of various factors of spatial discontinuity that is closely associated with networks:

TRANSPORTATION

TECHNOLOGY
• The result of urban **fragmentation** is the enlargement of the city without urban and geographic planning.

• **Fragmentation** is because discontinuity such as:
Comunidades Indígenas
Elipse Padrão 1 Centro Cidade

Elipse Padrão 2 Periferias Cidade

FONTE: AUTOR (MAFLA, 2016)
MATERIAL AND METHODS:

- These have alterations in their city structure that means demographic changes including the time and space of displacement.
MATERIAL AND METHODS:
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- Quito’s suburban areas.
MATERIAL AND METHODS:

- Our study, many survey forms were taken to layperson living in Quito’s suburban areas.

- In that inquiry, we evaluated:
  - the people satisfaction
  - their moving time
MATERIAL AND METHODS:

Downtown Inquiry's Zone

Downtown
RESULTS:

<table>
<thead>
<tr>
<th>DESTINATION</th>
<th>TRAVELING TIMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZONE 1</td>
<td>217</td>
</tr>
<tr>
<td>ZONE 2</td>
<td>36</td>
</tr>
<tr>
<td>ZONE 3</td>
<td>35</td>
</tr>
<tr>
<td>ZONE 4</td>
<td>1</td>
</tr>
<tr>
<td>ZONE 5</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>290</td>
</tr>
</tbody>
</table>
RESULTS:

- The maps and surveys demonstrated the great trip level to downtown from suburban areas, the reasons are many for example:

1. Work
2. Business
3. Study
4. City’s services
RESULTS:

The principal cause of these results is because there is an *urban fragmentation* and there is *NOT* a good infrastructure in the suburban areas that includes city’s services.

Good *infrastructure??*
RESULTS:

poor distribution??

CITIES FOR US
RESULTS:
RESULTS:

The results showed that in the city are many factors that includes insecurity, unfear distribution of resources, infrastructure, and poor distribution of basic services.

Insecurity
RESULTS:

Demonstrates that displacement time to downtown from these areas is over **60 – 90 minutes**, and the farthest areas it takes more than **120 minutes** demonstrated in table.

**TIME TRAVEL**

<table>
<thead>
<tr>
<th>VEHICLE</th>
<th>30 minutes</th>
<th>30’ to 45’</th>
<th>45’ to 60’</th>
<th>60’ to 90’</th>
<th>&gt; 90 minutes</th>
<th>INQUERITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS</td>
<td>16</td>
<td>35</td>
<td>57</td>
<td>40</td>
<td>10</td>
<td>158</td>
</tr>
<tr>
<td>TROLEBUS</td>
<td>9</td>
<td>11</td>
<td>23</td>
<td>4</td>
<td></td>
<td>47</td>
</tr>
<tr>
<td>CAR</td>
<td>12</td>
<td>19</td>
<td>24</td>
<td>3</td>
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<td>VAN</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>3</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>TAXI</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td><strong>41</strong></td>
<td><strong>68</strong></td>
<td><strong>117</strong></td>
<td><strong>50</strong></td>
<td><strong>14</strong></td>
<td><strong>290</strong></td>
</tr>
</tbody>
</table>
RESULTS: 70% of people go to downtown
CONCLUSIONS:

**COHESION**
- Between: the land using, transport
- Prevent: the urban fragmentation

**SUSTAINABLE COMMUNITIES**
- Good public transportation and use mix
- Unnecessary displacements

**EQUITY, CONNECTIVITY**
- The urban cohesion decreases impacts:
- Car traffic, pollution emission, and cost living
REFERENCES


Thank You

In this life happens a lot, but not my bus!