

A Study of Circulation Patterns and Stall Characters at Pancur Batu Traditional Marketplace, Pancur Batu Subdistrict, North Sumatera

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Abstract

This study analyzes the circulation patterns and stall characters at the Pancur Batu Traditional Marketplace, which is divided into an upper market (government-managed) and a lower market (managed by thugs and locals). The research uses a qualitative approach, collecting data through observation and interviews. The findings show a significant difference in circulation: the upper market has a confusing and messy flow due to unorganized building masses, resulting in unclear wayfinding and frustration for shoppers. In contrast, the lower market's circulation is organized, primarily shaped by a path grid that creates a simple, navigable flow for seeking commodities. Regarding stall characters, the markets share behavioral similarities, such as traders sitting on the floor or narrow chairs and spreading their goods on tarps or narrow tables. However, the upper market uses permanent, modular, and more spacious stalls provided by the government, offering better convenience and shading. The lower market relies on temporary stalls built alongside circulation paths, leading to competition for space, irregular measurements, and shading from hanged tarps. The study highlights how management and market structure profoundly impact circulation effectiveness and stall organization.

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Key Words

Circulation patterns, stall characters, traditional market.

Background

In Indonesian society, traditional markets are important because they are more than just places to transact business. They are vibrant places where people may engage, share knowledge, and preserve their local cultural history. Despite being ingrained in everyday life, these markets are coming under more and more pressure from contemporary retail structures like malls. A thorough analysis of the elements that go into creating a prosperous and successful market environment is required for this competition. The market's circulation patterns and the personality of each particular stall are the most crucial of these elements. While the layout and features of the booths themselves greatly enhance the market's overall ambiance and functionality, effective circulation guarantees a seamless and comfortable experience for both customers and vendors. Regrettably, deficiencies in these critical areas plague many traditional markets, limiting their potential and affecting their capacity to effectively compete.

A number of important issues make market circulation and stall design studies necessary. First of all, ineffective circulation leads to traffic, uncertainty, and eventually a bad shopping experience. It is typified by small passages, haphazard design, and unclear wayfinding. This may deter customers from returning and have a detrimental effect on vendors' earnings. Thus, it is essential to comprehend and put into practice efficient circulation strategies that give priority to the flow of people and things. Second, the market's identity and competitiveness are greatly influenced by the stalls' personalities. Boring, badly built, or unsightly stalls can make people feel neglected and take away from the entire market experience. or lack visual appeal can contribute to a sense of neglect and detract from the overall market experience.

In the face of contemporary retail, it is crucial to look into how stall design—including size, shape, materials, and visual presentation—can be improved to produce a unique market identity and increase its appeal. Furthermore, traditional marketplaces must change to be relevant in light of consumers' changing choices and lifestyles. This study must investigate how modern requirements, like technological integration, accessibility for individuals with impairments, and the adoption of sustainable practices, can be incorporated into circulation and stall design. The goal of this adaptation is to ensure the long-term sustainability of these significant community areas, not only to modernize them.

Furthermore, circulation and stall design have a direct impact on the health and safety of both merchants and customers. Careful design considerations are required to solve problems like poor lighting, limited ventilation, inadequate sanitation, and fire dangers. Last but not least, traditional marketplaces frequently represent regional architectural and cultural values. To ensure the market's continuous relevance in the local community, research in this area should examine how circulation and stall design might be implemented in a way that maintains and even strengthens the market's distinctive cultural identity. In order to create more sustainable, culturally appropriate, and functioning market places that meet the requirements of both vendors and the communities they serve, this research is not only an academic exercise. As architecture students, delving into this topic provides a valuable opportunity to understand the intricacies of designing human-centered spaces that contribute positively to the urban fabric.

Research Method

The type of research used for the analysis is qualitative research. Qualitative research is an interactive process that improves understanding by making new significant distinctions from closer study of a phenomenon. It is done by collecting non-numerical data to explore human behavior, attitudes, beliefs, and personality characteristics unamendable to quantitative research. Research data can be considered textual, numerical, software, archival, graphic, and other objects that serve as the basis for scientific conclusions in various fields of science, with their type varying based on the nature of the study and the discipline. There are two types of data in research methodology; primary and secondary data, and both are described as primary and secondary sources, and can be quantitative or qualitative. Primary data include methods, interviews, questionnaires, and databases, while secondary data resources include previously published books, magazines, journals, and unpublished autobiographies and biographies. It also can be from academic databases, government databases, inter-governmental databases, organizational databases, social media data, and legal databases.

The data in this research is gathered using several approaches:

1. Observation

Observation is a qualitative data collection method consisting of viewing and documenting phenomena in the researched environment. The collected observational data are raw materials to be used to change or improve a system. They involve choices regarding strategy, techniques, and tools, which should be made alongside the formulation of the research question and development of concepts. Four key principles of observational research include minimizing research unreliability, replicating an optimal sample size, and establishing reliability and credibility. Due to the researcher's

observation of the Pancur Batu Traditional Market's architectural features, the observation technique was employed in this study.

2. Interview

- a) The interview technique is a data collection tool in qualitative research methods, with various factors to consider during its use. The strength of the interview techniques are: Face-to-face interviews allow the interviewer and participant to respond immediately to each other's words or actions; there is no discernible lag between questions and answers.
- b) Compared to other methods, ending the interview is simpler. Thanking the interviewee for their cooperation and asking if they have any more questions concerning the subject or the interview procedure is a straightforward way to wrap off the conversation.
- c) Participants are given the freedom to discuss issues according to their level of expertise thanks to the interview technique. When needed, the researcher steps in and poses several inquiries regarding the topic.
- d) The researcher can get as much comprehensive information as feasible during the interview process. With various inquiry formats, it can provide data diversity and deepen the data.
- e) The participant might obtain quick feedback from the researcher regarding the information they acquired during the interview. In this manner, the interviewer can clarify complicated instructions. The interviewer may stop taking notes or ask the subject for permission to ask a new question if the participant began to make assertions that were not relevant to the study. The interviewer can continue taking notes, shake his head, demonstrate that he is paying close attention, and tell the participant that he has explained things correctly if the subject has begun to provide detailed information appropriate for the study.

Results and Discussion

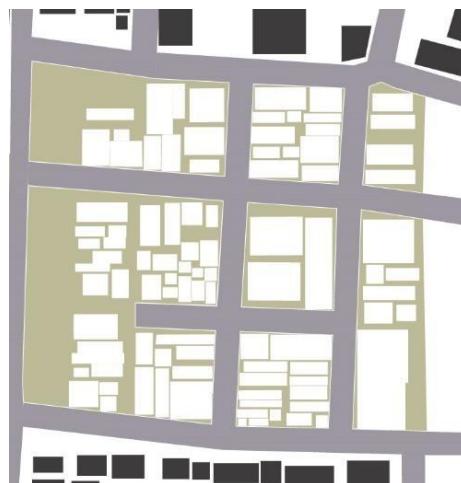
1. Circulation Flow

**Figure 1. Solid void relationship of the market**

The Pancur Batu Traditional Marketplace is divided into two parts by the main road, Jl. Jamin Ginting. Local people call both area differently: the lower market and the upper market. The lower market (right side) is the extension of the upper market (left side), and they are managed by different people. The lower market is managed by the thugs and locals while the upper market is managed by the government. This situation caused significant impacts on each's circulation pattern and stall characters.

**Figure 2. Upper market layout**

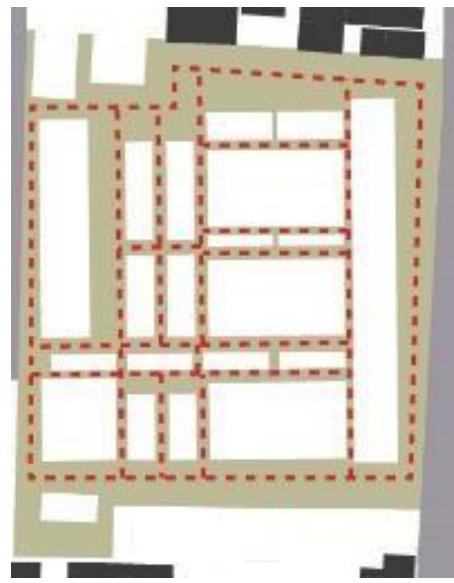
As shown in the image, the masses' placement of the upper market is more modular. The masses are permanent buildings provided by the local government, consisted of floor, columns, and roof, thus giving a comfortable place for the traders to sell their goods.

**Figure 3. Lower market layout**

On the other hand, the lower market has significantly different masses' organization inside. They are initially two-storey residential buildings and irregularly placed. Since the upper market is extended here, most residential building adapted to the activity change and became commercial on their first floor. Unlike the upper market, the permanent structures here are very limited as most of them are private properties. Therefore, most traders need to rely on temporary stall they create alongside the circulation path.

**Figure 4. Lower market circulation pattern**

The circulation flow of the lower market is shaped by the hard scape path inside the market, which almost creates a 3×3 grid shape. This path grid groupes together all the buildings inside and becomes the main circulation flow as all traders build their stall on both sidelines of the path. With this relatively simple circulation, people can easily navigate themselves inside the market to seek for commodities.

**Figure 4. Upper market circulation pattern**

Unlike the clear circulation pattern in the lower market, the flow in the upper market is very messy and confusing. The building masses are not properly organized, leaving uneven spaces and pathway to go around the market. Once people enter, it is frustrating where to look for goods to purchase. The situation worsens as no clear signage to be found inside the market.

2. Stall Characters

Stall Type	Images	Characters
Fruit	  	<ol style="list-style-type: none"> 1. The fruits are arranged on the floor or narrow table. 2. Various shape of baskets is used to display the fruits. 3. The traders are sitting on the floor or using narrow chair. 4. The fruits are displayed horizontally aligned with the pathway to make them visible.

Vegetable		<ol style="list-style-type: none"> 1. The vegetables are displayed using basket, plastic bag, or directly arranged on the floor. 2. They are arranged horizontally aligned with the pathway. 3. The traders are sitting on the floor or using narrow chair. 4. Some of the vegetables are stored behind the trader using baskets or bags.
Roots		<ol style="list-style-type: none"> 1. The roots are arranged using basket in various shape on top of a narrow table. 2. The traders are sitting directly on the floor. 3. There are many bags behind the traders to store the remaining roots. 4. They are displayed and stacked in front of the traders.
Spices	  	<ol style="list-style-type: none"> 1. The spices are stored using various thing: bag, basket, and small plastic. 2. The spices are arranged on top of a narrow wide table. 3. Spices in small plastic is grouped together in many square plastic baskets. 4. The traders usually sit on narrow chair.

Dead animal product		<ol style="list-style-type: none">1. There are a table to cut meat and fresh fish. Many round bamboo-woven plate is used to display dry fish.2. The display table are arranged in two different level.3. One to cut meat and fish, and the other is to display them.
Alive animal product		<ol style="list-style-type: none">1. Pigs, birds, chickens, and fish are placed in a various volume, be it cages, small ponds, bamboo baskets, and plastic baskets.2. The traders are sitting on a narrow chair.3. The fish traders store their pond inside a room after the market is closed.4. Many plastic bags are hanged above the fish traders to make them easier to grab.

Clothing and wearables		<ol style="list-style-type: none"> 1. The traders build their own display using woods and bamboos before displaying the clothes. 2. The clothes can be hanged using the bamboo or just left on the floor. 3. The clothing stall usually block the view as the clothes are displayed in a large amount. 4. Bags are always displayed hanging above the traders. 5. Underwear usually is displayed on a narrow table.
Daily equipment		<ol style="list-style-type: none"> 1. The daily equipment can be kitchen tools, bowls, plates, shampoo, soaps, hardware, etc. 2. They are usually displayed spreading on top of a tarp or stacked on a narrow table. 3. The traders are usually seat on the floor or using narrow chair.

		
Snack	 	<ol style="list-style-type: none"> 1. Snack can be cooked on the spot. It usually uses gas stove to cook the snack. 2. Snack can also be displayed in packages and displayed on a normal table. 3. The traders are sitting a normal height chair.
Grocery	 	<ol style="list-style-type: none"> 1. The grocery stall is usually in a room so the traders can easily store, arrange, and rearrange everything. 2. Many of the groceries are displayed in front of the store in boxes to be visible for people that walk pass by. 3. The traders usually sit inside the store, so the buyers need to come inside and communicate with them.

Conclusion

Pancur Batu Traditional Marketplace is divided into two different areas: the upper market and the lower market. Each area has different characters in term of their circulation. The upper market has unorganized circulation pattern created by its messy massing organization, making

people confused in it to seek for goods to purchase. On the contrary, the lower market has a much more organized pathway to guide people in it.

Behaviour-wise, both markets are similar. The traders are usually spreading up their goods on the floor with a tarp or on top of a narrow table. This then affects their seating behaviour which is usually on the floor or on a narrow bench.

Additionally, the lower market has no permanent trading space, so the traders usually compete to get enough space for their goods. This causes irregularity in their stall measurement. Their stall also is shaded with tarp that is hanged using rope from one point to another. On the other hand, the upper market has permanent modular market space. This benefits the traders are most of the trading spaces are divided equally for each trader. The permanent building also provided more convenience as they are shaded with mostly roof, not hanged tarps.

Lastly, the size of the stall in the upper market is more spacious than in the lower market. It is due to permanent space the upper market has compared to the lower one.

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