



**RESEARCH PAPER**

**A Socio-Economic and Environmental Interpretation of Barkat Market Lahore through Urban Acupuncture**

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**ABSTRACT**

The study is focused on the application of Urban Acupuncture in revitalizing the degenerated areas particularly for the economic sustainability. This technique is used globally for the revitalization of market squares by implanting the small economic interventions and excluding the negative spots through planning. The study also examines an area's productivity after implementing a few treatments at key spots in an urban square, with the goal of maximizing the advantages of urban acupuncture in a city like Lahore. The methodology adopted is the application of Urban Acupuncture (bottom-up approach) principles including accessibility, permeability, pluralism, inclusivity and interdisciplinary innovation. This research concluded the regeneration model for the uplifting of Barkat Market square with innovative solutions to revamp the whole design of the area. The recommendation strategy proposed the design solutions for entry and exit into the market in addition to the parking spaces with inbuilt security and safety for the users.

**KEYWORDS** Interventions, Markets, Bazars, Positive Energy, Urban Acupuncture, Urban planning, Urban Renewal, Urban Squares

**Introduction**

Urban acupuncture focuses on a holistic approach, involving city planners, community, and future generations. It requires innovative solutions, cross-disciplinary collaboration, and a comprehensive understanding of economic, cultural, ecological, social, historical, infrastructural, and political elements for successful intervention.

Urban acupuncture promotes participatory planning, fostering community involvement and accountability. It allows for top-down and bottom-up approaches, allowing for democratic visions and regaining voice for minority groups. It promotes financial stability by focusing on low-key, small-scale interventions and allowing community members to sponsor renovations.

However, urban acupuncture faces challenges such as time constraints, participation misperception, and false expectations. To overcome these challenges, effective communication and communication between participants are crucial. Despite these challenges, urban acupuncture has the potential to replace traditional urban renewal techniques by offering temporary, flexible measures that can be altered as needed. It offers a more efficient and cost-effective approach to urban renewal, potentially transforming the entire process.

Urban acupuncture is a theory developed by James Lerner, Rubio de Solà-Morales, and Marco Casagrande, which aims to create a higher livability through small-scale interventions on urban skin. It emphasizes community involvement in revitalizing urban areas, challenging hierarchical decision-making and promoting local knowledge integration.

The research is focused on the upgradation of the market square and providing the solutions for the same.

### **Literature Review**

Urban planning and development have largely focused on functionality, with cities often viewed as machines for living. However, the importance of public spaces in urban planning has been recognized since the 1980s (Hajer, M. and Reijndorp, A. 2001). Scholars like Lewis Mumford, Jane Jacobs, Donald Appleyard, Christopher Alexander, Paul Davidoff, and Allan Jacobs argue that public spaces contribute to the quality of life, economic development, and overall urban image (Shidan, C. & Qian, S. 2011).

In 1990 European architectural practice has seen a shift towards new urbanism, with Rem Koolhaas advocating for a staging of uncertainty and enabling fields (Ids (Avermaete, T., & Teerds, H. 2007). The need for sustainable cities and strategic planning for economic setbacks has led to the need for incremental urban strategies, Frampton has argued that there is an immediate need for an incremental urban strategy. This strategy, he says, should be referred to as 'Mega form as urban acupuncture (Frampton, K., Ibelings, H., & de Sola-Morales, M. 2008).

Urban acupuncture is a practice that focuses on improving the intangible aspects of urban spaces to bring about desired results. It emphasizes the need for critical urban planning and the need to address the shrinking of cities and their expansion into the hinterland. Urban acupuncture aims to transform social, economic, and urban reality through temporal interventions, focusing on sustainability, technological advancement, public spaces, time, and mobility. It is associated with three theorists: Manuel de Solà-Morales, Jaime Lerner, and Marco Casagrande. This research aims to study their concepts and develop a manuscript of urban acupuncture.

The Brazilian architect Jaime Lerner elaborated the concept of urban acupuncture that identify the problematic areas and for healing the problems the painful insertion of needles is done. The application of this theory works on urban skins that can regulate the energy flows by drawing parallels between persons and cities. His expertise demonstrated the revitalization of the problematic areas into the improved built environment.

He is of the opinion that urban areas promote social diversity while addressing the burning issue of Climate Change. He believes that social diversity should be aimed at which carries within itself the visions of sustainability, tolerance and mobility (Green, J. 2011). He further explained the importance of the community participation for the success of such interventions.

The revitalization and regeneration of degenerated urban areas through urban acupuncture application is the solution of time. He executed the projects through this particular approach in Brazil (Bus Rapid Transit and Central Street Projects).

The pioneer of this theory was Manuel de Solà-Morales, an architect and urban planner based in Barcelona. His approach is based on evolution of the city with time that transforms different shapes while balancing the concepts of harmony. He perceived the urban skin of cities like human body that capture the marks of time and keep evolving. He believes in urban skin formulations encompasses the textures, structures and most important humans that makes a specific urban experience. Urban peripheries and the interaction between the city and the water are the two main areas into which his work can be separated. (Moneo, R., Busquets, J. and Smets, D. 2013)

Urban acupuncture theory was pioneered by the Finnish architect and social thinker Marco Casagrande. He focuses on the manipulation of energy flows at the urban level to

foster ecologically sustainable development of cities, referring to them as 'Third Generation Cities'.

Casagrande's theory proposes a three-step circle in which nature and human interact, develop, and grow. He proposes the idea of bringing humans back to urban ruins, composed of the organic remains of the industrial city. This involves the concept of urban acupuncture, Anarchist Gardening, and River Urbanism. Urban acupuncture involves the destruction of the industrial surface to reveal the organic ruins of the built environment (Casagrande, M. 2009).

Casagrande has credited several urban acupuncture projects, such as Treasure Hill in Taipei, China, and the Bug Dome project in Japan. These projects aim to connect human nature with nature and promote sustainable development in cities.

Critical Discourse Analysis examines the complex relationships between talk, text, cognitive activities, culture, community, and power to derive conclusions. It aims to explore societal inequities and develop a critical stance against available data. Despite lacking scientific support, the efficacy of the urban acupuncture notion has been demonstrated in urban squares across the globe. The theory offers customized answers for many issues, but it is not accompanied by any standards. The regulation of energy flow in the urban body is dependent on each location system and framework.

### **Material and Methods**

The research methodology adopted for this research is the amalgamation of series of steps starting from the literature study with highlighting the principles of the theory for application. Afterwards, the selection of the case studies for analysis for the innovative solutions adopted.

The case study is being employed to conduct this research that mainly use the qualitative methodology for in-depth research design by examining and investigating the individuals or groups in addition to the survey/ observations etc. for identification of the problems. Furthermore, the solutions are provided in result for the upgradation to resolve the problems and associated factors.

This case study approach highlights the causes and the potentials for all four pillars of sustainability. The primary focus is the application of this technique in the uplifting of the selected market square. The principles of urban acupuncture theory application would also provide the benefits for using in all similar cases. The workability of this theory is also tested in this case.

### **Selected Case Studies**

Urban acupuncture is a modern urban renewal approach that aims to bring cities back to life through targeted, small-scale urban interventions. The practice targets key-points within the larger urban setup, aiming to create quick and effective results in a short span of time. Theory of Urban acupuncture has many characteristics, including monetary savings, sparking the interests of politicians as an alternative planning instrument to solve urban illnesses. It is highly regarded by scholars for its capacity to bring people back to urban life.

The case studies of Sao Paulo and Barcelona in the 1980s and 1990s demonstrate how urban acupuncture can transform entire urban morphology. Due to Sao Paulo's downtown's deficiency in warmth and vibrancy, small-scale urban projects have been introduced to encourage the core city's rehabilitation and revitalization. Barcelona's

rehabilitation plan completely transformed the city's landscape, making it possible for the city to hold the Olympic Games in 1992.

Renowned Spanish architect Juan Busquets delineated three interventions in Barcelona: morphological major structures, urban restoration, and urban restructuring. 200 new plazas were established as part of urban rehabilitation, and new neighborhood centers and road networks were established as part of urban restructuring. As a result of the city's changes, a cultural metropolis influenced by its rich history in the arts and architecture was also created. Other cities, like Bogota, have been influenced by this idea and have launched small-scale solutions to enhance living conditions and lower pollution levels. The goal of the project is to offer a methodical approach to significant actions that have a stronger catalytic impact.

### **Urban Acupuncture in Lilong, China**

The increasing urbanization and population expansion in China have created issues for Lilong dwelling, an informal dwelling design. One of the major issues is the deteriorated infrastructure with very dense population that affected the property value even. The over population and extra burden on the infrastructure created this chaotic situation in this area. The rehabilitation projects were started to restore its historical significance in addition to the improvement of the living standards of the community. Different projects were floated to enhance the economic generation so that the existing infrastructure could be redefined. The strategies introduced were not only limited to the economic activities but also extended to the restoration of social and environmental fabric of the area. The business models were developed for residential and commercial areas for boosting the businesses. The major contribution was the television series title "Home of Dream" by leading architects that shown the upgradation models for the revitalization of abandon residential properties to motivate the community. These programs also demonstrated the urban acupuncture techniques successful projects to spread the awareness among the community and for motivation. They also suggested low budget options for maintain the residential properties. The architects promoted vertical greening methodologies in addition to9 the better space organization methodologies. This particular program enhanced the perception of the residents and uplift their motivation level to opt for such solutions. The low budget and high-performance solutions convince them to apply as seen in the demonstration. The success stories of this particular area also motivated other localities in the vicinity to go for such solutions. The revitalization through urban acupuncture really made those spaces live able and low-tech maintenance further enhanced the impact on the built environment of the area.

Informal urban renewal projects like Home of Dream focus on improving residents' living conditions and historical significance of old residences. Media plays a crucial role in shaping these projects, bridging architects and residents, and spreading the idea of urban acupuncture.

### **Urban Acupuncture in Amsterdam**

Amsterdam, the capital of the Netherlands, is the largest city in the country with a large population of 178 people from 178 different countries. The city is divided into eight city districts, each with its own focus on six aspects: densification, park rearrangement, regional public transport, quality public spaces, balanced mix of greenery and water bodies, and renewable energy generation. However, many districts have faced challenges and have been neglected, leading to the creation of prized neighborhoods like De Baarsjes/Jan Maijen. These neighborhoods, known as "prized neighborhoods," have the potential to bring about significant transformations if proper attention is paid to their treatment and revival efforts. Because of its strategic location and close proximity to the A10 freeway, the long-forgotten

Jan Meijen -square was a haven for criminal activity. Since then, the land has been developed into a highly valued Dutch square, demonstrating its potential for expansion.

Because of the absence of a strong social structure and establishments, Jan Meijen Square in Amsterdam was beset by negative energy. The area was plagued by drug dealers and customers, leading to a state of oblivion. In 2005, journalist Rick Hekkens started a café, 'Cook', which became the first non-smoking café in Amsterdam. The Jerusalem church transformed into a house for the whole neighborhood, hosting activities like concerts and poetry recitations. The Jan Meijen Collective (JMC) successfully convinced housing associations to let the building remain as a public function and use it as an anti-squad headquarters for the neighborhood. The neighborhood experienced a wave of positive energy when residents kept a light lamp alight throughout the night, allowing drug dealers to evacuate the area. The lighting was improved by Christmas lights, and the church installed timers on its illumination system. The housing association also addressed the issue of youth smoking weed in the school building's portico, using spotlights to discourage students from smoking.

Urban acupuncture in Jan Meijen square led to a shift in residents' perspectives, leading to the transformation of De tuin van Jan, an inner garden on the backside of a school building. The housing association refused to allow the park to be used as a public function, so the JMC initiated a new design process in 2011. The garden was opened to the public for three weekends in a row, and experts from various fields collaborated to create a pop-up park. The park was inaugurated by the newly appointed city councilor, who discussed the process with the housing association's management. The park's design aimed to transform the site into a central site in the neighborhood, with the urban architect proposing a safe haven for privacy and the horticulture specialist proposing a plantation scheme.

The garden, De tuin van Jan, was transformed into a pop-up park in Amsterdam, serving multiple functions. It resembles a paradise garden, with four parts representing seasons, wind directions, nature elements, and the universe. The park also functions as a rain garden, collecting rainwater to flow into buffers. Sustainable design features paving stones for seating, reused bicycle stands for pavilions, and old student housing for wood. The park was officially inaugurated on May 15, 2013.

### **Comparative Analysis of Similar Locations**

The study also taken into account the similar market squares like Moon Market and Liberty Market to better understand the urban acupuncture phenomenon. Moon Market, one of the oldest market square with new developments is located in the center of the city. It serves to a very wide range of people for all types of needs starting from grocery to fine dining. Liberty Market standout for creating exciting shopping experience through variety of products. Both of the market squares are famous for their characteristic shopping environments and serving to different types of clients.

The selected market is located in the center of the city. Barkat Market is easily accessible due to its location surrounded with residential, commercial and institutional land use. The study examined the whole vicinity to determine the chaotic situation of this urban area. The technique will raise the standards of the area with the provision of the innovative solutions.

To understand the whole are and the reasons for its deterioration needs a thorough study including socioeconomic conditions, economic hierarchy and environmental problems. The proposed solutions would generate the acceptable built environment for all users of the area.

## **Results and Discussions**

The surveys and analysis of the Barkat Market square with the Urban Acupuncture principles identified the issues as shown in the table 1. The solutions were devised following the case studies successful implementation. According to the theory the street provides the sense of security and mobility with the presence of diversified activities. The new activities addition provided much more security and sense of belonging to the space. It was also observed that there are serious issues regarding the parking and traffic flow due to its central location. The market is used by passers by more than the users of the market. The main entrance is not provided with sufficient prominence to gain the attraction of the users rather it gives an impression of being without entrance. This is one of the main reasons of the irregular traffic flow coming from all sides directionless. The market study showed its significance in addition to the highlighted problems. This Market square serves a unique street food to middle income groups. A drab façade, inadequate lighting, and poor signage all contribute to the area's unpopularity among the general public. To improve the socioeconomic and environmental perception of the market, remediation measures should be implemented.

Barkat Market is a community of businessmen and residents that lived there as long as the area came into existence. For those people, Barkat Market is sacred space having identity of its own. These people possess a wealth of local knowledge for this area. This local knowledge is critical to maintain the sanctity of this square. Only with active participation and contribution of these local residents this urban square can be altered in a justified manner. Urban acupuncture emphasis on implementing local knowledge while transforming an area. The study thus suggests that whenever a transformation fails to include the local knowledge, the urban square loses the warmth and identity. In addition, active participation of the community is the need without which, it would be impossible to transform the urban square. When the required participation from the community is achieved, all the necessary decisions and actions are made taking in consideration of the public ideas. When the community is involved with the decision-making process, there are more chances for the space to flourish. Such contributions are necessary so that we could not rely on government authorities. In case of Barkat Market, it is difficult that the permanent commercial and residential public should be fully involved in the task of required transformations.

There are many strategies in which the burden of essential resources could be minimized. Each member of the community should be determined enough on its own to donate towards the cause of these transformations. Carpentry shops are there who could provide their services for providing seating facilities, the printing and stationary shops may arrange for setting up of student's achievement center, the shop owners may contribute towards this to build vibrant facades whereas the food stalls may contribute by providing free food to the labors while they work. Safe drinking water plants and restrooms can be made by collecting funds from all the shop owners. Lighting products can be provided at a reasonable cost by shop owners who deal in such goods. Transforming Barkat market is possible if all the community members willingly come together to initiate the cause and transform the area as a whole.

Active community participation in the transformation of Barkat Market is necessary to ensure that the neighborhood's local knowledge is maintained. Local knowledge is the key in ensuring the success of any revitalization project. It uses the available resources to initiate a succession of chain reactions. These chain reactions are intended to push the transformation process in a specific direction. This motivation process of transformation is replete with all the necessary details that help in maintaining the culture, tradition, sanctity and integrity of the location.

Once a peaceful environment built, Barkat Market shall start working on the path to economic and social stability on its own. This is the most promising element of the theory of urban acupuncture. Although these transformations are small but the results, they bring about come to be drastic and encouraging. Once this positive change is built in environment, people are encouraged and motivated to willingly sponsor those transformations which are not possible without their support. In this way, some small transformations make way for necessary donations and support from the community members.

The theory of urban acupuncture is built on four major principles. With reference to Barkat Market, this research recommends such measures that shall fully incorporate all of the four principles. With holistic approach theory of urban acupuncture suggest that such interventions should be carried out which create a positive impact on the entire urban square. Any intervention that fails to improve the negative energy of urban square becomes irrelevant and serves no purpose. Other than that, the participation of community has also been fully required while proposing solutions for the problems that exist in Barkat Market. As a principle, community participation is mandatory rule in order to include remedial measures into the urban acupuncture approach. Furthermore, the proposed remedial measures are both time-efficient and economical. These are yet some other principles based on which the theory of urban acupuncture emerges as one of the most efficient and successful measures of revitalizing, rejuvenating and restoring a dead and decaying urban square.

No.	Problem Identified	Factors	Urban Acupuncture Principle	Design Solution
01	Parking	No sign boards Proper in and out etc. The current entry is unattractive and poorly maintained, with not enough amenities for disabled people, the elderly, and parents pushing prams. Cars are parked haphazardly. Existing parking do not fulfill the requirement. Congested overcrowded roads inside the square	Accessibility	Proper Entrance design and a pedestrian-only entry promotes safety, attracts small businesses, and encourages interaction between customers, resulting in a more culturally healthy town. Need of vertical parking lots to maximize land value and marginal utility. Using the space for up to eight four-wheeler parking increases the likelihood of unused land. Provision of walkable streets for Pedestrians in Market can boost exposure and activity while also encouraging more family trips and reducing crime.
02	Inadequate lighting led to dangerous activities like gambling and drug addiction.	No street lights	Provision of street lights inside the square	Proper illumination may completely change the scene, pushing shady operations to leave, addressing beggars and criminals, and making the market a desirable destination for visitors.
03	Facades	Haphazardly placement of boards on window facades of buildings creates ventilation problems inside buildings.	Up gradation and betterment of Facade.	Facade is one of the most important feature of a building that attracts the public at large. For a place to be attractive, it is necessary that its facade should be improved with standard signage size, random colors, font, and style. Vibrant, colorful facades and themed food stalls can attract visitors and maintain interest, enhancing the overall visitor experience.

<p>04</p> <p>Lack of basic amenities and hygiene</p>	<p>Barkat Market's daily visitors lack safe drinking water and decent bathrooms.</p> <p>Negligence thus leads to littering and collection of garbage in nooks and corners all over the market. It makes the site unappealing; it also poses serious health hazards for the visitors and other people sharing the space.</p>	<p>Provision of Restrooms and Safe Drinking Water.</p> <p>Provision of Miscellaneous Amenities.</p>	<p>The research suggests installing water filtration plants and three restrooms to ensure clean water and restrooms.</p> <p>Barkat Market area lacks basic amenities like trashcans and dustbins, leading to littering, health hazards, and congestion due to poor ventilation. Small interventions are needed to address these issues.</p>
<p>05</p> <p>Lack of Engagement among surrounding community members.</p>	<p>Lack of activities and dull appearance as well as traffic congestion</p> <p>Lack of shady trees and seating under them.</p> <p>Due to critical condition surrounding areas families do not prefer to visit the square.</p>	<p>Revamping to attract the public.</p> <p>Provision of proper seating area for the visitors.</p> <p>Provision of Mobile Nurseries on weekends to enhance community engagement.</p>	<p>Provisions of Activities like whiteboards, wall murals, and yoga classes can engage the public and reduce noise pollution. The park can also be used for physical activities.</p> <p>Seating area plan to maintain customer-food stall interaction and accommodate visitors' needs. This should be located alongside the road and across the park, catering to different visitor demands.</p> <p>Mobile nurseries on weekends could transform Barkat Market into a popular destination, providing freshness, greenery, and easy access for visitors to pick plants and flowers. This would also help those in need, contributing to economic stability.</p> <p>Open-air food markets are popular for traditional food, hygiene, and quality. Barkat Market should establish an open-air market on specific days, preferably Sundays, to attract people from different parts of the city and ensure market success.</p> <p>Open-air local brands activities, introducing various products, can foster engagement and economic growth. Small stalls can showcase various brands, enhancing public understanding and appreciation.</p>



Figure 1 Montage designed to paint a true picture of the existing conditions on site



## **Conclusions and Recommendations**

The research concluded the successful application of small interventions including the signage for the accessibility and routing the vehicular as well as pedestrian through proper channelizing. The provision of identifiable spaces for the small businesses surrounding the main market square for improving the livability of the area in addition to security/ safety to all the users. The elimination of negative spaces and illegal structures with designed spaces in the strategy will enhance the overall the built environment of the area. This research also concluded the successful interpretation of the Urban Acupuncture for the revitalization of the Barkat market with the following recommendations strategy.

- Transformation of Parking space
- Transformation of Entry inside the Market
- Provision and Management of Loading/Unloading Activities
- Provision of Walkable Streets
- Availability of Restrooms and clean Drinking Water
- Up gradation and improvement of Facade
- Provisions of activities to engage the visitors
- Provision of shady seating area for the visitors
- Provision of Mobile Nurseries
- Provision for open-air food markets
- Provision for open-air local brands
- Provision for student's achievement center
- Other Miscellaneous Amenities

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