

## **Adapting Children Play Area Based on Doll Theory (Case Study: District No.6 of Tehran)**

**Kianoosh Zakerhaghighi<sup>1</sup>, Rana Taghadosi<sup>2</sup>, Saeed Hajibabaei<sup>3</sup>**

<sup>1</sup>Assistant Professor, Hamedan Branch, Islamic Azad University, Hamedan, Iran

<sup>2</sup>MSc; Urban and Regional Planning, University College of Fine Arts, University of Tehran, Tehran, Iran

<sup>3</sup>MSc Candidate; Department of Art and Architecture, Hamedan Branch, Islamic Azad University, Hamedan, Iran

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### **ABSTRACT**

In every society, children are considered as the link bond of future and past generations. Preserving traditions, cultures, beliefs and social identity as well as social reform is just happening through the children. Method of study is social research index that is also known as analytic scientific description. The purpose of this study is to propose solutions and access to child friendly urban spaces. In this study, Environment role is defined into four main factors as connection to environment, conditions for connection to environment, friendship condition and friendship criteria in respect to 6 basic dimensions of personal attention, activity, commitment, loyalty, mutual understanding and Freedom of Expression. Also during the survey of the ecological approach to investigate child friendly environment in the District No.6 of Tehran, we reached the conclusion that developing accessible open spaces in city, creating protected environments for children activities, mix use into districts, merging historical environment with living places and other factors can create a platform to provide children with appropriate urban spaces.

**KEYWORDS:** Urban Space suitability, Children, Doll Theory, District No.6 of Tehran.

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### **1. INTRODUCTION**

In every society, children are considered as the link bond of future and past generations. Preserving traditions, cultures, beliefs and social identity as well as social reform is just happening through the children. Hence, behaviors root in family and society are so invariable.

Finding shows child has a different perception of space than us. So, preparing suitable urban spaces necessitates a different understanding of children. Ignoring physical circumstances of children and where they live, the weaknesses and strengths points of their lives and its relevance to urban spaces would not be identified.

Therefore, child should be considered as a part of society. Child physically and mentally is vulnerable and needs to be protected. For that reason the UN hold a great significance for children. Child-friendly environment is a complicated concept and despite various studies, understanding and evaluating this environment still remain difficult. To understand child-friendly environment, in one side explanatory analysis of good environment and on the other side study upon good environment are needed [1].

Childhood is the best context for character development, inclination to collective life and fostering collaboration with others. Concerning a supportive environment requisites for child growth and comprehending essence of child demands, build on foundation of proper training to coming generation. This factor prominently influences the next generation social health and plays a crucial role in decreasing social- multiplicity and relieving urban life tensions.

Urban environment should be a place of training and entertainment rather than a place with mere traffic role and rest area. City is to bring safety for child and have attractive feature in regard to child. Because of perception that child would grow up someday, we draw up an agenda for adolescence designing. The city neglectful of its children, indeed forget its past, present and future generation. Caring about child mental and physical health is just begun over pregnancy period in some countries and develops stage by stage after the child-birth. Consequently, a convenient environment is so decisive for children because it put them into a safe place to make friends, to share their interests with others and through a mutual interaction, learn how to co-exist alongside people [2].

### **2. MATERIALS AND METHODS**

#### **Concept of child- friendly city**

Child-friendly city concept turns back to its global approval on agenda 21 in UN habitat, which poses creation of a better condition based on preserving basic rights for all children of cities. Child-friendly city is

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\*Corresponding Author: Kianoosh Zakerhaghighi (PhD; Assistant Professor), Hamedan Branch, Islamic Azad University, Hamedan, Iran; Email:k.zakerhaghighi@gmail.com

committed to provide a suitable place for children. We have to surpass fancy meaning of the word of to comprehend this obligation and obtain a sophisticated concept of child-friendly city.

The concept is based on four general principles of the United Nations Convention on the rights of the child: (1) fair treatment of every child, regardless of ethnicity, gender, religion, socioeconomic background etc.; (2) top priority of the best interests of the child; (3) the child's right to a better life and development; and (4) respect of children's views. In a CFC, children are encouraged to take part in the decision making processes that affect their lives [3]. This policy is expected to answer how to realize a better space for children in their social life and growth[4].

**Table 1.** Summary of Dolls dimensions into four main factors

Dimension	Connection to environment	Conditions for connection to environment	Friendship condition	Friendship criteria
Mutual influence and personal attention	Respecting and taking care of environment, children love supportive environment with good quality. At this case child loves and respect the environment.	Animism is the foundation for children protection in recent world and it has a substantial role to form the environment. Over childhood animism presumed to hold a profound respect for objects, especially when children automatically are so sentimental in their public communications.	Friends are going to have each other back	Mutual influence and personal attention
Sharing activities and interest	Meaningful connection to environment: Accessibility rate of environment let children to meet their different needs. Accessibility put the child and environment into a meaningful connection.	In human and environment relation, people and their environment are considered inseparable. Therefore, people inevitably are part of their environment. The environment makes people capable of initiating a variety of activities.	It explain time and attention to friends have fun with each other	Sharing activities and interests
Commitment	Knowing environment based on experience. Training through environment and completing environment via direct experience are among important parameters of development and improving relation with environment. Commitment regarding to place is expressed through environmental knowledge and training via environment as well as completing this knowledge by engaging to environment.	Children's direct and indirect experiences of environment help them to know and complete the environment. Knowing environment through personal experience dominantly influence on environmental activities.	The goal of every two friends is to develop friendship over the time	Commitment
Loyalty	Establishing and developing boundaries: space let the children make specific boundaries for their activities over the time. These boundaries keep them away of annoyance.	People behavior in their boundaries states their human essence. More connection to other boundaries makes larger those boundaries.	The goal of every two friends is to protect each other interests.	Loyalty
Mutual understanding	Have a secret place: these places let the children to reveal or keep information and manage their relation as to others	Children searching places for privacy. These places share children activities and protect them. The experiences of children privacy are among information management and communication into selected places.	Knowing friends profoundly	Mutual understanding
Freedom of Expression	Freedom of expression: children for space occupation and sharing power use different methods. They use art, music and etc. through freedom of expression a new meaning of environment is created by children.	One of the key concepts of power in socio-physical environment is the capability of personalization, change and occupation of environment. On the other word having freedom to self-explanation. Freedom of expression is a basic right in every culture. In public places this is manifested through art, movie and etc.	Sharing power with friends	Freedom of Expression

### **Rights of children and their environment**

Child-friendly city is supposed to has a new set of guidelines for childhood and specific meaning for child as well as formulating rules for children which are unchangeable by parents, relatives, society and authorities. After conforming to the convention of child-friendly cities, all countries arrive at a global consensus to create environments that warrants child growth and survival. Child-friendly cities convention state children rights in form of a standards set. These standards contain physical, mental and religious problems as well as condition of

living environment. Condition of environment impressing every man, woman, young and child life and all them need to have a restful place into society. Social, cultural and economic committee of child-friendly cities has stated 7 parameters as guaranty factors of every child rights. These parameters are: ownership right, access to services, access to resources, access to facilities, access to home in regarding to income rate, easy access to job and medical centers, education right [5].

#### **Environment role in the child-friendly environment**

Diversity of environmental resources and access to play and exploration have been regarded as the two central criteria of a child-friendly environment [6, 7]. A study on 1985 concluded that children in small families choose three environments to freely search and understand personal differences better and much more. But children in large families have just one environment to make them free, however they getting along with people much better. It shows children they have got support of brother, sister and people of the same age into daily life, are more pragmatic to establish connection with environment [8].

Moderate urban density seems to have child-friendly characteristics such as an ability to promote independent access to meaningful places and the diversity of affordances. The diversity of affordances is highest in areas that are densely populated and not very green. Green areas are important settings for doing things, and green structures around emotional affordances increase the likelihood of liking the place significantly [9].

Environment role is defined into four main factors as connection to environment, conditions for connection to environment, friendship condition and friendship criteria in respect to 6 basic dimensions of personal attention, activity, commitment, loyalty, mutual understanding and Freedom of Expression[ 10].

#### **Study methodology**

The study investigates children relation with place in daily environment. Every single relation of child with place could be described by mutually emotional impact, believes, habits and functions. Therefore, studying child relation with environment demands to obtain precise information as to child emotions in space and physical environment as well as knowing child notion of environment and society. Relevant statistics about health, farewell, education, work and character of Iranian children are available, but there is lack of suitable information on environment and its effect on children. Regarding pointed studies it seems qualitative method is appropriate for data gathering.

Method of study is social research index that is also known as analytic scientific description. This method allows for assessing, updating and complete knowledge of theory. Procedure is as below:

1. Adopting a holistic view on all data. Six dimension of connection to environment in this study made structure of research about children and environment. Study questions framed data about kinds of relation with place, physical structure of environment and people reaction against different places. So, needed data should be both quantitative and qualitative. Consequently, the quantitative and qualitative information gathered in some way that could be analyzed through a comprehensive analysis.

2. Extensive investigation: the study demands for extensive social investigation that causes all effective factors on creating urban places to be studied.

3. In-depth knowledge: for a more complete and better knowledge of environment presume ourselves as activity supervisor in order to know appropriately about environment. Through this in-depth knowledge we could offer effective solutions. So, the essential core of activities could be dedicated to children surveillance on local places.

4. Analyses: to careful analysis we put all observation together to have a better investigation. For this purpose, an inductive technique was used because method of observations and analyses resultant is more coordinated with study hypothesizes. Accuracy level of analyses is depends to

- Thoughtful expression of circumstances
- Using appropriate measure to repeat activities
- Analysis structure to compose facts
- authentic evidences

5. Feedback is an advantage of analytic scientific description that allows for comprehensive awareness of new information and cause review in concepts, knowing mistakes and etc. so in the case of new subjects, redundant matters would be recognized and then refined.

#### **Analytic scientific description method depends to**

1. Concepts evaluation
2. Relationship between evaluations and information
3. How to interpret evaluations and information

Therefor a framework was established in respect to children connection to environment and to relate evaluations and information, the redundant analysis was strongly avoided.

First, for an in-depth knowledge of children, theoretical literature on child psychology was studied. Also, literature on urban spaces and child friendly cities was comprehensively studied and similar cases were taken under investigation and analysis. Then, key indicators for the subject were extracted and on the basis of indicators, standardized questionnaire in cooperation with urban planners and psychologists was designed. Then parents and

school authorities helped to fill out questionnaire through direct interview of students. Every subject was divided into distinct groups to be compared and analyzed, and then differences and similarities were demonstrated. Finally, based on obtained results, coherent policies and effective strategies were plotted.

**Obtained results are contained:**

1. The place that children care about must
  - Having visual signs of supervision like parks and etc.
  - Having visual signs of safety like wall, entrance and fence
  - Having attractive feature like clean roads, colored flowers and etc.
  - easy access for children
  - being a place of public use
  - being a place away of noisy crowd
2. The place that allows for children activity must
  - make children capable of different activities
  - being near to home
  - being familiar to children because they have a lot of activities in these places
  - having a positive identity
  - being multi-node and let for creating a territory or multiple territories
  - having freedom of expression
  - being convenient place both physically and socially
3. The instructive place for children must
  - Having cultural and historical characteristics
  - Allows for social contacts
  - Child could play different roles
4. Places that children keep their secrets must
  - To be far away of home
  - Child identity remain anonymous within these places
  - Do not draw too much public attention
  - Having feature and facilities for children to hide in there

**Ecologic approach of children environment**

Appropriate places of children, could be exist into both wide and close environment. Because of different targets of different environments, the only way to demonstrate effect of policy on child-friendly structure is ecologic approach. However, consequent of child-friendly environment impressibility from urban macro-policies, ecologic investigation of environment from systematic point of view, cause a better knowledge of child-friendly places equipment [11].

Bronfenbrenner [11] presents children issue as a dynamic system of four classes whereas every class has its own different socio- physical structure and through their combination, environment system is created.

Microsystems are immediate structures, available on children environments. Among cases of the systems are home and society. As the child get older, the more places and people will be enter through surrounding circle of him/her. By the time, human organism arrives at a more complicated phase of activities and communication with people and objects of environment. This dynamic process is a feature of microsystems. Based on Mathieu's theory, negative effects of microsystems are presented via activities, decrease of environmental experiences and lack of social communications.

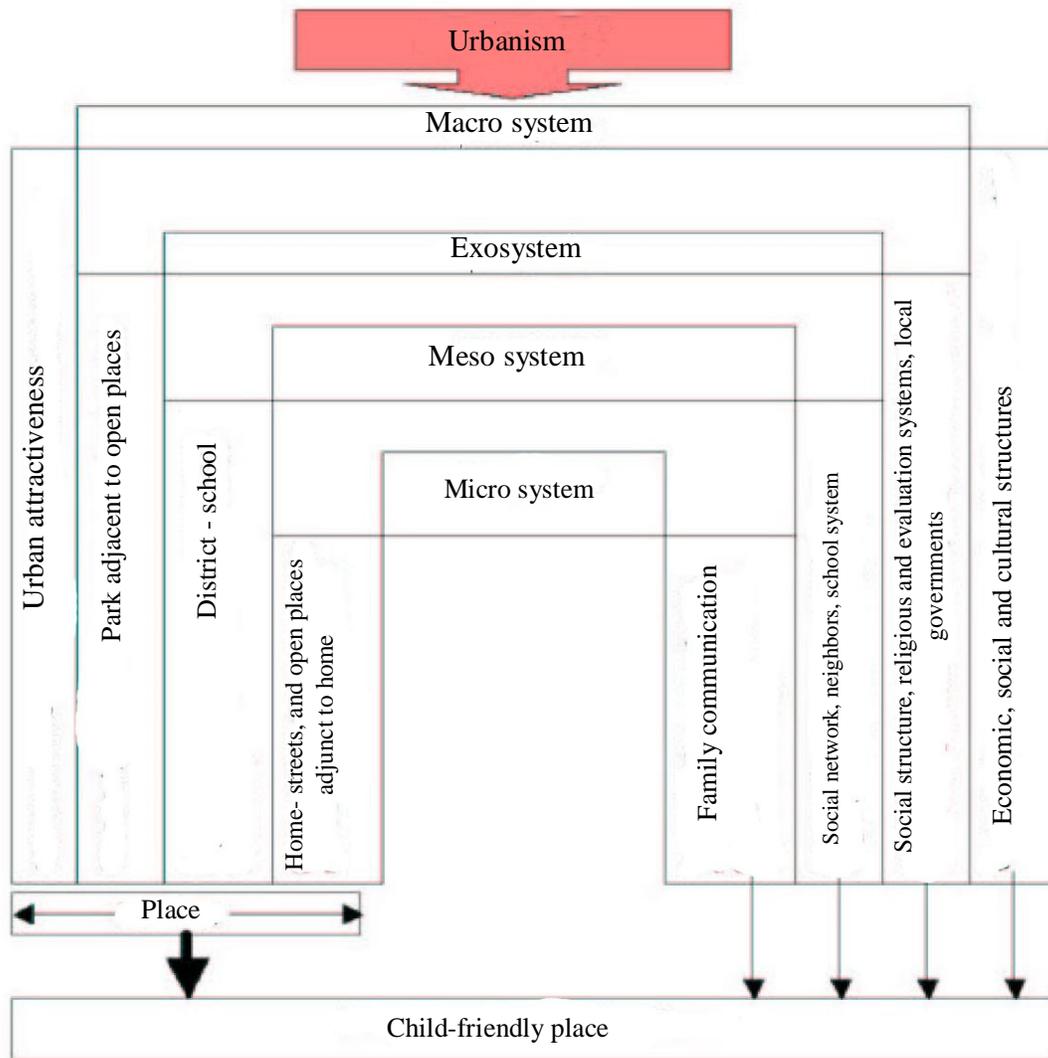
Mesosystem indicates to an environment rather than home, where the child establishes more and more communications. Mesosystem includes child relation with school and society. Based on Mathieu's opinion, more varied, positive and stronger communication on such environments makes Mesosystem more effective and beneficial.

Exosystem contains major socio-organizational structures which has critical role in children lives like validation system of society, religious and governance structure as well as educational system. Child has no role in such structures. Basically, urban plans are resided into this class, because they got the target to set circumstance for children and teenagers participation in urban plans. Based on Mathieu's opinion, Exosystem arouse a controversy between young people in contrast with children understanding of environment.

Microsystem is ideology of a society. Among cases children training, good behavior in public places, children rights and etc.

This model let to assess environments which are considered convenient by children. The model shows some places just reside into one class and no other classes [12].

Figure 1. Bronfenbrenner classes



### 3. RESULTS

#### Ecologic approach of children environment in district 6 of Tehran

**1. Microsystem:** Children in this district having different forms of social communication. They are mostly engaged with relatives, neighbors and local playmates. The most part of communication happening therefor near home and open spaces adjacent to home. Children of the district believe them benefitting from appropriate social communication within microsystem.

**2. Mesosystem:** Also in this class children are free to know their district and to communicate the society. Based on factors such as physical condition and urban plans this district has safe and sustainable places of living. So, the district is considered as a supportive environment for social and family systems. The district's children have good access as well as possibility of activity in different places. This is going to happened depends district respect the children and tolerate them.

**3. Exosystem:** In this class urban plans and school policies are resided. District's habitants and subsequently the children have no role in urban plans.

**4. Macro system:** In this class, children engaged in more intricacies. Economic and political structures are so influent on children. To investigate children rights in district environment, the presented tool in residence conference was used for evaluating environment. The tool is demonstrated in below. 70 was the number of interviewees.

Issues like unemployment and illiteracy are so influent on children and they got no control on the matter. Based on information it could be perceived the 6<sup>th</sup> district regarding in terms of microsystem and Mesosystem is in an excellent condition.

**Table 2.** Residence conference tools to evaluate environment

Children answer	Dwelling right
87 percent answered positive	We got decent home which is a good and cozy place of playing
91 percent answered positive	We got access to health services
100 percent answered positive	Food and water are proper
44 percent answered positive	We got good sewer line and garbage disposal system
Everyone considered access convenient till primary school	We got access to educational environment
40 percent answered positive	There is identical rights for boys and girls
34 percent answered positive	We are allowed to play into home and streets with no harm
100 percent answered positive	We got good bath
74 percent answered positive	We got good access to parks
74 percent answered positive	We got convenient place to pray
90 percent answered positive	We are not get expelled out of home for any reason
74 percent answered positive	Parent spend plenty of time for the children

### Proposing solutions and suggestions

**1. Developing accessible open spaces in city:** Green space forms part of urban landscape and as a real phenomenon people permanently facing this part of city. This issue has ecological, social, cultural and economic dimensions.

Study about green space is firstly matter of significance in respect to ecological issues and getting used by children in leisure time resides in the second level of significance. Without knowing ecology the green space could not be discussed, especially study of different urban climate is so important. Considering factors like height from sea level, general direction of wind in city, pollution caused via industry and automobiles and ... is mattered a lot in respect to green space and its significance in schools.

**2. Creating protected environments for children activities:** A convenient park must have enough space for every activity, contain simple and safe facilities, which means not too tall or low in terms of height, neither sharp nor cutting. There should be also fair distance between children playground and where traffic flowing. There should be suitable dividing on ground. Toys better to select based on child age and a convenient place be considered for biking, skating, sands ground, sliding board and merry go round. Generally, beside age and requirements of children, 3 key elements must be thought in child parks, land, activity type, water and plants. Land is considered infrastructure of the whole park, plants make shadow, balance and safety. Plants in open spaces better to be fast-growing type, and avoid to plant poisonous fruits or thorny shrubs. In wide spaces water is a basic element and providing good facilities, children could play in water. In absence of natural water, artificial pools should be filled. Pools better to have heights of 25 to 30 cm, permanently getting cleaned, and equipped to fountains. Water should not be contaminated by dogs or cats. Based on requirements, children could be divided into four class of age and subsequently playground also be divided into four section.

1- Playground for children under 3 years better to be placed 50 meter near to home, to be surrounded and have capacity of 20 children with their parent. Lawn better to be uneven but low-heighted and have a small cottage with its seats.

2- Playground for children of 3 up to 7 years better to be separated from adults' playground. For every child space of 10 square meters must be allocated. One third better to be lawn or crushed ground, another third is allocated to semi-hard ground with equipment like ladder and slide and remained third is given to solid ground like asphalt for biking and balling along with a cottage and toilet.

3- Playground for children of 7 up to 9 years: by this age child needs more relation, more activity and good environment. Semi-hard ground or lawn with an asphalt line of biking - surrounded with plants - sounds suitable whereas allocated space for every child is at least 10 square meters.

4- Playground for children of 9 up to 12 years: by this age children are more independent and they need wider space that is less surrounded. There should be asphalt sport ground with a variety of lining for playing and bouncing along with Ping-Pong table which is surrounded with fence of 3 meter heights. Space of ground must be at least 12 to 20. Also there should be a ground with hurdles for jumping, climbing, running, crawling and balance movements. For children over 12, there should be a ground for common adventure along with younger children and a place for social and cultural activities with space of 150 square meters round the clock. Share of sport space for everyone should be 20 square meters that is placed in distance of 500 to 800 meters near dwelling.

Since, parks are among convenient environments for children (the realm, freedom of expression and social communication) and also accepting different groups of age, culture and ... so the physical environment is so crucial in determining the way they got used. To create a good park or a beautiful landscape, Mathieus believes

different nodes with different size and form must be created into parks. It allows for activity of a variety of groups with different moralities.

**3. Mix use into districts:** There is two kind of mix use: 1- use combination in the section 2-use combination within the boundary. Modernist functional zoning most of the time act against urban vitality. The issue of how to use zoning is the matter of fact, essentially. Leon Career defines two kinds of zoning:

- *Containing zoning* means every activity is allowed to be established rather than strictly forbidden activities.

- *Confining zoning* is formed based on incompatible activities, every unnecessary activity will be forbidden, therefor. Organizing content is considered so significant for zoning. In many countries because of eliminating incompatible industrial use within city, zoning is not matter of discussion anymore, although in U.S.A the issue takes revolutionary changes and still remained in use. Zoning in U.S.A is used for organizing form along with function.

**4. Merging historical environment with living places:** Contradiction between traditional culture and newly residential area, has broad aspects. Environments with cultural and historical value could have positive effects on people lives, provided they are known through people. Absence of these values, keep children ignorant of their history and culture whereas identifying these values cause children be trained to preserve and protect these environments and know more about their culture and history.

**5. Dynamic streets strategy:** Pedestrian-orientation is one of the suitable options to access a healthy and dynamic society. The society in which, the urban space is formed on basis of humanism and pertaining to human needs. Nowadays along with high-tech advancement and increase in automobiles number, it seems too hard to access such a space however, and instead we see unpleasant and inflexible spaces that is accounted a major reason for mental diseases.

In societies with the high social role for paths and absolute domination of side walkers, vehicles just used in order to service routine life that is gone through paths. Sidewalk is considered as a tool for collective life in respect to urban economy, environmental quality and social health.

**6. Using idle lands for interest of society:** Idle and empty lands, attract children in cities. Urban managers should use these lands somehow that most benefit could be exploited.

**7. Participating in designing and planning cities:** Citizen's participation in urban management could be influential on economic resources supply, lowering services cost as well as increasing social integrity, elevating citizen satisfaction and reducing injuries and tensions arise out of urban life. Urbanization development, specifically in recent decades causes an increase in population out of proportion and lack of welfare facilities which in turn pose a lot of problem in face of urban management.

So, investigating citizen's conception of participation in urban management is known as the goal of this study. Participation is described as a process by that people could get themselves organized and also have expression right in local development activities. Social relations are considered a key factor of attachment sense so that it forms fundament of social interaction as well as constitutes groups of people. Regarding psychological and sociological aspects, participation is a phenomenon with four dimensions namely self-preservation, self-perception, self-decision and self-control. On the other word, participation is maturity of human basic abilities among personal dignity and responsiveness against decisions. As a result, in public management system, the goal is presence of everyone. Urban management prosperity depends on a multilateral participation of all policy-making layers included metropolis management and urban management of regions and districts, which is ranged from lowest to highest level of management.

Participation should be considered both qualitatively and quantitatively. In public management system all effective elements of urban management among local, government and private sections must be engaged. Public participation is subjected to the elements namely urban management legitimacy, transparency, responsiveness, accountability and covering all range of professions. That's why enabling councils and municipalities is a necessity and cultural infrastructure for managers, employees and then citizens should be built. Appropriate solution resides in social movements in participation with districts. Indeed participatory organization should be formed at the district base and national intention should be tied up with social movements, while government resources serve and facilitate these movements. One of the solutions to improve urban designing pertaining to child-friendliness condition is to use children opinions. People participation improves economic, social, physical and psychological aspects of urban plans and makes them more acceptable.

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