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## Access to Public Spaces by Elderly - A Bibliographic Review

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**Abstract:** A public space is a social space such as a public park, garden, town square, etc., that is open and accessible to all, regardless of gender, race, ethnicity, age or socio-economic level. Public space is commonly shared and created for open usage throughout the community. Accessibility to public space is very important in enhancing the quality of life of elderly by promoting elderly to participate in socio-cultural and economic life and ability to meet their own Physical, Socio-economic and other essential needs. This enhances the process of active ageing of population. Deprived of getting access to the public spaces especially for aged effects on inclusiveness and will lead to the situation opposite to the livable cities or sustainable cities.

The present work emphasizes to review the scholarly research works carried out by various scholars on the issue of Access to public spaces by elderly and to identify the evolving research trends over the last five decades. This helps in understanding the concept of public space and its role and importance for promoting the process of Active ageing of the population and development of inclusive and sustainable cities. In order to review, the web resources such as Google scholar, Scopus and Web of science platforms are used with the key search words such as Public space and elderly, Access to public space by Elderly. Mobility and Active ageing, for the time frame 1977 to 2022. The entire review has been reduced to some important aspects like the concept and importance of public space, accessibility, factors of access, Measuring accessibility, etc. The study has revealed the access to public space plays a very significant role in increasing the life quality of people especially when the world is transforming rapidly towards urbanization and population ageing in the current times. It is observed that a greater contribution in this direction has obviously came from the western scholars as the process of ageing is much advanced there. A very few attempts are made by the scholars of Afro-Asian countries on these issues but in Indian context no such scholarly investigations are made. As the issue of access and urban sustainability are core geographical aspects there is a wide scope for Urban Geographers to work on access to public space by elderly in Indian context in order to plan for inclusive cities for aged population which enhances the process of active ageing of population and also contributes for the development of sustainable cities.

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**Key words:** Public space, Accessibility, active ageing, healthy elderly,

**Introduction:** ‘Our future is Urban and Old’, Public space is a powerful instrument of social inclusion. This is of great importance to cities. Accessibility and Public Space are important aspect of urban quality of life of people in general elderly in particular. Generally, the more accessible and age friendly an environment is the more active aging. The Quality of Life of people in cities is directly related to the state of its public space. Accessibility is a geographical concept and accessibility matters in quality of life. The quality and accessibility of the

environment in which an elderly people lives can have a significant bearing of how active they are in society. Any equitable city or town needs to offer a substantive and accessible amount of quality public space, accessible amenities and useful.

**Methodology:**

This paper intends to examine the scholarly research works and their contributions of scholars from various disciplinary perspective in general and geographical in particular through bibliographic review using different online

platforms such as Google scholar, Scopus and Web of science search engines. The key search terms such as Public Space and elderly, Access to public space by Elderly, Mobility and Active ageing, for the time frame 1977 to 2022 has been used. The entire review has been reduced to some important aspects like the concept and importance of public space, accessibility, factors of access, Measuring accessibility, etc. The entire review has been grouped on several topics which cover the basic conceptual aspects like the concept and importance of public space, accessibility, factors of access, Measuring accessibility, mobility etc.

#### **Meaning and Definition of Public Space:**

The author here attempted to examine the views of different scholars on the concept, meaning and definitions of Public spaces. The Public space play a very significant role on human community both at the personal and community level. The topic of Public space is dealt by different discipline with different approaches. Sustainable cities should be livable cities where people from different background and with different aspirations can meet and interact with each other. Public spaces are the urban stages where these interactions happen. As for meaning of public space it can be looked into from a multidisciplinary perspective. Different public spaces are defined in relation to the political, social, economic and environmental background of a society at a certain point of time.

**United Nations Educational, Scientific and Cultural Organization (UNESCO-2017)**- “A Public Space refers to an area or place that is open and accessible to all people, regardless of gender, race, ethnicity, age or social-economic level. These are public gathering spaces such as plazas, squares, and parks connecting spaces such as sidewalks and streets are also public space”.

**APA (American Planning Association) Characteristics and Guidelines of great Public Space** – “A Public space may be a gathering spot or part of a neighborhood downtown, special district, water front or other area with in the public realm that helps promote social interaction and a sense of community. Possible example may include such spaces as towns squares, parks, Market place, public commons and malls, public greens, piers, special areas wit in convention centers, sites within public

buildings, lobbies, concourses or public spaces with private building.

**Kristie Daniel (2016)** - In his article define the public space are those spaces that are open and accessible to the public. Public space includes streets, local public market, parks, public squares and beaches. UN-Habitat considers public spaces “a Vital ingredient of successful cities” and the places in a city that build a sense of community, culture, social capital and community revitalization”.

**“Public space: more than just space” Working together for a Safer Space, South Africa. (2022)** - Public spaces are created and maintained for citizens. They are owned by the public, serve the public good and promote social cohesion. By definition they are accessible to all citizens, regardless of their income and personal circumstances .

**UN-Habitat -2015** In this report define the Public space takes many forms, from the streets to parks and playground of recreation to market places. But this does not mean that all public spaces are “Open Spaces” a library, a school, or other public facilities are also public spaces. Public spaces must be seen as multi -functional areas for meeting, economic exchange and cultural expression among a wide diversity of people and should be designed and managed to build peaceful and democratic societies and promoting cultural diversity.

**Nil Pasaogullari et all (2004).** North Cyorus, **Turkey**- In his article Measuring accessibility and utilization of public spaces in Famagusta explain Public spaces, such as neighbourhood park or community gardens, are one of the major elements the define the city’s unique attraction points.

**Global Public Space Toolkit : from Global Principles to Local Policies and Practice (2016)**, this toolkit define the Public space is ‘Public spaces including streets are and must be seen as multifunctional areas for social interaction, economic exchange and cultural expression among a wide diversity of people’.

**UN-Habitat (2018). SDG Indicator 11.7.1 Training Module: Public Space. United Nations Human Settlement Programme (UN-Habitat), Nairobi.** :- in the report on define the Public space takes many spatial forms, including parks, streets, sidewalks and footpaths that connect, playgrounds of recreation, marketplaces, but also edge space between buildings or roadsides.

It is evident from the above scholarly works the term 'public space' is described as municipally owned urban land which is commonly considered so in many parts of the world today. The term public is used to describe accessibility to all public space is thus owned by none in particular. A public space is a social space such as a beach, a town, square that is open and accessible to all regardless of gender, race, ethnicity, age, or socio-economic level. Public space is a space open to all owned by all and used by all members of the public.

#### **Origin and Evolution of Public Space:**

Public spaces depend on different functions like social, cultural, economic as well as symbolic. The form of public space is not fixed as they change with the change in the dynamics of society. Public space occupies an important ideological position in democratic societies. **Don Mitchell (1995)** said, the notion of Public Space can be traced at the Greek agora and its function as the place of citizenship. The Roman forum and the Medieval market square were first evolved around the 11<sup>th</sup> century and became a crucial public space during medieval times. The modern era witnessed a drastic evolution since the renaissance Plazas. The priority being the fast movement in the urban space guided the planning of the city and developed a close relationship between open space and the surrounding build area. And also, an increase in the new public spaces for leisure and public entertainment.

Architecture and urban design are linked into the dynamics of urban change. Change in urban form over time, from pre-industrial to post-industrial/postmodern cities, have been accompanied by change in the dominant form of architecture. In the 19<sup>th</sup> century city, architects responded to the processes of Industrialisation, Modernisation and Urbanisation with designs for new public buildings, factories, office buildings and mansion houses that rejected these contemporary processes of urban change and embraced classical features. Modernism was boosted by the ideas of German Bauhaus school (1919-32). Postmodern design has also stimulated the preservation of historic buildings and urban areas, often linked with the growth of cultural industries and festival shopping developments.

The first of this vision public space is taken and remade by political actors, it is

politicized at its very core, and the second vision, public space is planned, orderly and safe users of this space must to feel comfortable. These two visions of public space correspond more or less with Lefebvre's distinction between

1. Representation Space (appropriated, lived space, space in use)
2. Representation of Space (Planned, controlled, ordered space)

#### **Significance of Public Spaces:**

Access to public space is very important as it increases the Quality of Life especially in active ageing of elderly population. Public space is a vital component of a prosperous city. Well designed and managed public space is a key asset for a city's functioning and has a positive impact on its economy, environment, safety, health integration and connectivity. The quality of life for people in cities is directly related to the state of its public spaces.

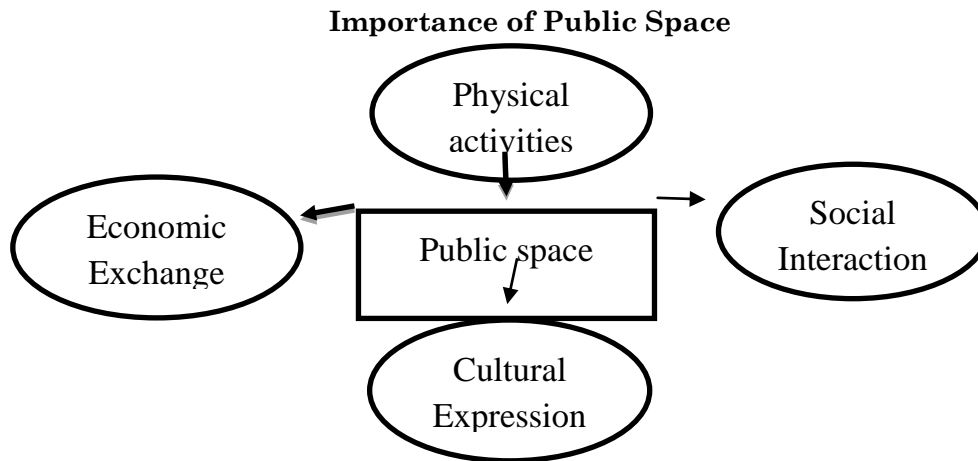
The UN-Habitat mention the three main qualities of public space like safe, lively, well-maintained of public spaces. They are much more than just 'space' that can be used by citizens. They bring economic value, promote social cohesion and often offer environmental as well as cultural benefits. Public space is where people interact with the city, with the environment and with their neighbors. Public spaces must be seen as multi-functional areas for meeting, economic exchange and cultural expression among a wide diversity of people and should be designed and managed to build peaceful and democratic societies and promoting cultural diversity. Improving access to good public spaces for the most vulnerable urban residents is a powerful tool to improve equity, promote inclusion and combat discrimination. Public spaces contribute to building social cohesion through promoting social and cultural interaction and can foster a sense of belonging and pride in an area. Public space promotes gender equality, enhances safety, supports economic development, improves public health and improves the environment.

Public space is an open-air living room for city dwellers. Ensuring good quality, multifunctional and well-connected public space which reflects class, gender, age, and ethnic differences is how people use this space is crucial. Public space creation, protection, management, and enjoyment are ideal opportunities for the involvement of all

citizens. According to UN-Habitat there should be the three main qualities of public spaces. They are

- They bring economic value.
- Promote social cohesion.

- Environmental as well as cultural benefits.



### Significance of Place and Space:

**Tuan, Y. F. (1977)** Said **Space** and **place** are basic components of the lived world. "Space" and "Place" are familiar words denoting common experiences. We live in space. There is no space for another building on the lot. The Great Plains look spacious. Place is security, space is freedom: we are attached to the one and long for the other. Geographers study places. Planners would like to evoke "a sense of place". The purpose of the essay is how cultures affect human attitudes to space and place. **Don Mitchell (March- 1995)** said Place is a unique and special location in space notable for the fact that the regular activities of human beings occur there. Moreover, because it is a site of such activities and all that they entail, place may furnish the basis of our sense of identity as human beings, as well as sense of community with others. Place are special sites in space where people live and work. In Globalising world, a sense of place is of importance in people's daily lives. Space is more than a medium in which social, economic and political processes operate. The dimensions of spaces like Size, density, distance, direction, territory and location – exert powerful influence on urban development and on human interaction.

### Meaning and Types of Accessibility: -

Accessibility is defined and operationalized in several ways, and thus has taken on a variety of meanings. There have been several different definitions of accessibility. Accessibility must be the most essential feature of the human centered

design in built environment. Accessibility is a concept used in number of scientific fields such as transport planning, Urban planning, and Geography, play an important role in policy making.

**Matt Rosenberg (2018)** Accessibility is defined as the ability to reach a place with respect to another place. In this context, accessibility refers to the ease of reaching destinations. People who are in locations that are more accessible will be able to reach activities and destinations faster than those in inaccessible locations. The latter will be unable to reach the same amount of locations in a certain period of time. **Meltem Yiimaz (2018)** analysed the situation of public space and accessibility in Turkey, they define the Accessibility as 'accessible road, is the road that from node in the interior of a building to the public space does not include any obstacle and provides continuity'. **Geyrs K.T. and Wee B.Van (2004)** In this review, based on an extensive *literature study* found out the perspectives and components of accessibility. The concept of Accessibility is used in number of scientific fields such as transport planning, Urban planning, and Geography, play an important role in policy making. They define accessibility as the extent to which land use and transport systems enable individuals to reach activities or destinations by means of a transport mode. The term 'access' and 'accessibility' in the literature are often used indiscriminately. Here 'access' when talking about a person's perspective, 'accessibility' when using a locations perspective.

**Types of Accessibility:**

Accessibility in regards to geography is an important element in mobility for people, freight, or information. Mobility is determined by people and affects infrastructure, transport policies, and regional development. Transportation systems that offer better opportunities of accessibility are considered well-developed and efficient and have a cause-and-effect relationship to various social and economic options. Mobility is a choice made by users and is, therefore, a means to evaluate the impacts of infrastructure investment and related transport policies on regional development. Well-developed and efficient transportation systems offer high accessibility levels, while less-developed ones have lower levels of accessibility. Thus, accessibility is linked with an array of economic and social opportunities, but congestion can also have a negative impact on mobility.

**Matt Rosenberg (2018)** defined "Accessibility the ability to reach a place with respect to another place". accessibility refers to the ease of reaching destinations. People who are in locations that are more accessible will be able to reach activities and destinations faster than those in inaccessible locations. Accessibility determines equal access and opportunity. **Gary Higgs –(2005)**. They analysed the measures of access to health care services in Netherlands. They said the access into series of dimensions like,

- Availability
- Accessibility
- Accommodation
- Affordability
- Acceptability

Thus, any study that investigation variations in accessibility needs to examine issue surrounding 'affordability, physical accessibility and acceptability. Physical accessibility depends only on the relation location of the population and the service facilities .

**Hyemin Cho et.all (2021)** in their study of considering public transportation accessibility in South Korea find out that the Affordability, availability, accessibility, acceptability are four factors that determine the quality of public transportation services. In particular accessibility is a factor directly connected to the economic, social and physical factors.

**B. P. Shrestha & A. Millonig & N. B. Hounsell & M. McDonald (2017)** Review of Public Transport Needs of Older People in European Context. In this review analysed Access to public transport can help older people to avail themselves of goods, services, employment and other activities. Public transport will play a crucial role in maintaining their active life. Accessibility has been the main focus of initiatives to help older people use public transport. In the ideal world, older people would like to have accessible, affordable, frequent, comfortable, door-to-door, spontaneous services with access to a large variety of destinations over an extended period of time. In this paper four main issues: Affordability, Availability, Accessibility and Acceptability, have been used as the basis for assessing the public transport needs of five GOAL profiles of older people 'Fit as a Fiddle', 'Hole in the Heart', 'Happily Connected', An 'Oldie but a Goodie' and 'Care-Full'. On the basis of the analysis the paper brings out some areas of knowledge gaps and research needed to make public transport much more attractive and used by older people in the 21st century.

**Factors Influencing Access to Public space: -**

More of the focus will then be on the factors like comfort, quality and the aesthetic that are principally related to the physical and functional properties of the public space itself. When a comfortable space presents itself well and has a good image, this is key to its success. Comfort includes perceptions about safety, cleanliness, and the availability of places to sit, miniatous is among the most important factors in successful place making, achieving comfort and increasing utilization.

**Mobility:**

The author here attempted to examine the views of different scholars in the definition of Mobility. Mobility is the important factor influencing the accessibility. Mobility is the ability to move or be moved freely and easily. Mobility can be thought of in terms of being able to move throughout various levels in society (**Matt Rosenberg 2018**). The concept of mobility involves travel and access to desired places. The concept of mobility relates individuals, their means of transportation and destinations. Mobility is defined as the ability of any person to move between times with information about travel options and the ability to pay for transportation factors influencing elder

mobility for out of home activities in urban public space.

#### **Elements of Mobility:**

1. Travel and access to desired people /places.
2. Psychological aspects
3. Sense of independence
4. Physical wellbeing and health
5. Community involvement in social activities
6. Potential travel.

Affordability, availability, accessibility, acceptability are four factors that determine the quality of public transportation services. (Hyemin Cho et.al 2021) In particularly accessibility is a factor directly connected to the economic, social and physical factors.

Accessibility in regards to geography is an important element in mobility for people, freight, or information. Mobility is determined by people and affects infrastructure, transport policies, and regional development. Matt Rosenberg (2018) According to him, Mobility means "Mobility is the ability to move or be moved freely and easily". Mobility can be thought of in terms of being able to move throughout various levels in society. Mobility is determined by people and affects infrastructure, transport policies, and regional development . Sariya srichuae et.all (2016) They found out that the concept of mobility involves travel and access to desired places, Aging Society in Bangkok. They mainly examined the concept of mobility relates individuals, their means of transportation and destinations. Mobility is defined as the ability of any person to move between times with information about travel options and the ability to pay for transportation factors influencing elder mobility for out of home activities in urban public space. Mobility is a choice made by users and is, therefore, a means to evaluate the impacts of infrastructure investment and related transport policies on regional development. Well-developed and efficient transportation systems offer high accessibility levels, while less-developed ones have lower levels of accessibility. Thus, accessibility is linked with an array of economic and social opportunities, but congestion can also have a negative impact on mobility .

#### **Measuring the Level of Accessibility Methods and Techniques in Public Space:**

Public space play a very crucial role in the quality of city or an urban space and also physical, social and economic life of elderly people. Accessibility can be measured by various methods. Few scholars identified different measures to access the level of accessibility methods and techniques. The study identified that the accessibility to public space on effected by assigned that affect the elderly, distance, cost, travel time, access to urban services like is health, economic, social and recreational services for elderly depends on local characteristics also.

There are many attempts made to find out the level of accessibility methods in the world. Several Scholars have attempted the Level of Accessibility which are mentioned below.

**Matt Rosenberg (2018)-** In this study analysed the situation of United Kingdom, examined the different types of access, and They find Accessibility in regards to geography is an important element in mobility for people, freight, or information. they analysed to measured transportation system data, using three approaches, including traffic-based measurements, mobility-based ones, and accessibility-based data. These methods range from tracking vehicle trips and traffic speed to traffic time and general travel costs.

**Dr. Jean-Paul Rodrigue** –mentioned that the Accessibility is the measure of the capacity of a location to be reached from, or to be reached by, different locations. Therefore, the capacity and the arrangement of transport infrastructure are key elements in the determination of accessibility. They have observed the accessibility depends on spatial location and Distance . All locations are not equal because some are more accessible than others.

- The first is **location**, where the relativity of space is estimated in relation to transport infrastructures since they offer the means to support mobility. Each location has a set of referential attributes, such as its population or level of economic activity.
- The second is **distance**, which is derived from the physical separation between locations. Distance can only exist when there is a possibility to link two locations through transportation.

**K.M.Atikur Rahman and Dunfu Zhang (2018)** attempted to "Analyzing the level of accessibility of public urban green

spaces to different socially vulnerable groups of people” Dhaka city in Bangladesh. They said the criteria of accessibility of a public space include, 1. Linkages 2. Walkability 3. Connectedness 4. Convenience. They find out the perspectives and components of accessibility, accessibility measures and the main purpose is to assess the usability of accessibility measures in evaluations of both land-use and transport changes and related social and economic impact. The criteria of accessibility are the concept of accessibility in evaluations of land use and transport changes. They can be identifying the four types of components of accessibility, like, land-use, transportation, temporal and individual components. He said perspectives on accessibility is focusing on their four based on the four measures, there are

1. Infrastructure based measure
2. Location based measure
3. Person based measure
4. Utility based measure

**Gary Hggs –(2004)** They analysed that the measure of access to health care services in Netherlands. They adapted Measurement of accessibility are

1. **Container** : The number of facilities contained within a given unit
2. **Coverage**: The number of facilities within a given distance from a point of origin.
3. **Minimum distance**: The distance between a point of origin and the nearest facility
4. **Travel Cost** : The average distance between a point of origin and all facilities.
5. **Gravity**: An index in which the sum of all facilities is divided by the frictional effect of distance.

**Fangying Gong et. All (2016)** They analysed that the Elderly Accessibility to Urban Green Space in High Density Cities in Hong Kong, Hong Konga typical high density city in Asia. Accessibility analysis in terms of both distance and time for elderly people to get urban green spaces. The role of accessibility of urban green space is especially important for elderly people in high density city. 1. Modeling urban green spaces available for elderly people using the landscape fragmentation Index (LFI) of green space patches and 2. Accessibility analysis in terms of both distance and time for elderly people to het urban green space patches. This study statistical analysis based on the GIS transportation data base. ArcGIS network analysis, The accessibility maps are shown respectively for distance and walking time.

The measure generally assumes that ‘given maximum range for the service being offered at a facility and assuming that every member of the population is a potential user of the service, the pattern of physical accessibility will depend only on the relative location of the population and the service facilities. This could be represented as travel time, road or map distance. **Talen** has described several approaches to measuring accessibility (2003). 1. Container 2. Coverage 3. Minimum distance 4. Travel cost 5. Gravity these are the example from health sectors. In summary the choice of measure selected to examine spatial patterns in accessibility has to be considered in the light of the particular service under consideration and differing assumptions concerning travel behaviour to the service. The use of GIS based measures in exploring the relationship between geographic access, utilisation, quality and health outcomes.

In this paper Analysed the situation of Turkey (2004) There is a positive relationship between the accessibility of a public space and utilization. The main purpose of this paper is dispersion, proximity and ways and means of accessibility have been identified as key variables, which would contribute to the assessment of the accessibility of public spaces. The appearance of the public space affects its user and, in many cases, can be substantially improved. Comfort, quality and aesthetic considerations have been identified as key variables for measuring the utilization of public space. The utilization of public spaces is highly dependent on accessibility as the primary concern, whereas the variously mentioned factors affect their utilization.

In the assessment of accessibility questions were asked to test out the effect of proximity, dispersion, travel time, adequacy of sidewalks, street type, public transport and car ownership. And finally, utilization of public spaces was questioned according to the determined variables like attractiveness, cleanliness, maintenance, safety and variety of existing activities in a public space.

#### **Level of Access to Public Space by Elderly:**

Public space is a vital component of a prosperous city. Well designed and managed public space is a key asset for a city’s functioning and has a positive impact on its economy, environment, safety, health, integration and connectivity. The quality of

life for people in cities is directly related to the state of its public spaces.

Public space and Accessibility are important aspects of urban livability and urban quality of life of people in general and the elderly in particular. Public spaces play a very significant role in the physical, social, and economic life of elderly people. Physical activities provide an important way for elderly people to stay healthy. Public space is recognized as an important environmental setting for physical activity. Therefore, improving elderly accessibility to public space is useful in promoting more physical activity among them. In particular public space has been recognized as one of the most important behaviour settings for physical and social-economic activity of elderly people.

The use of public spaces varies according to the time of day and day of the week and is affected by what is on offer in a particular place at a particular time. Most public spaces that people use are local spaces they visit regularly. In recent years public space seem to have reduced in quality, particularly in highly urbanized areas. Public spaces are the main places in the community that support people to be physically active. Opportunities for regular physical activity within day-to-day life have declined over recent decades, especially for urban dwellers. Due to urbanisation and motorisation more and more urban residents need to find ways to integrated physical activity into their leisure time.

#### **Conclusion:-**

The study has revealed the access to public space plays a very significant role in increasing the life quality of people especially when the world is transforming rapidly towards urbanization and population ageing in the current times. This helps in understanding the concept of public space and its role and importance for promoting the process of Active ageing of the population and development of inclusive and sustainable cities. Public space to improve mobility and access to basic services, making their environment safer and crime-free, stimulating economic activity and investment, preserving historical and cultural assets or facilitating urban renewal and inclusiveness. It is observed that a greater contribution in this direction has obviously come from the western scholars as the process of ageing is much advanced there. Sustainable communities need dwell

designed everyday spaces and places that are well managed, well serviced safe and activated by different forms of economic, cultural, biological, recreation and social exchange. Public spaces play an important role in the social community.

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