

**KEY WORDS:**

Address-giving, Identity, Landmarks, Markers, Housing Communities, Way-finding

## Address-giving as Expression of Identity: Study of CIDCO Housing in Navi Mumbai

**Pooja Ugrani**

Tekton Volume 7, Issue 2, September 2020, pp. 44-63

---

**ABSTRACT**

A series of territorial markers are created at the boundaries of urban residences in community living (spatial, physical, olfactory, auditory) that indicate spatial ownership. Way-finding and address-giving for residences utilize such markers, along with other elements that are part of the existing environment. These are read and navigated to reach the destination. When a resident gives her address, she is telling you how to navigate various boundaries in an appropriate fashion to gain access.

The objective of this research is to understand how people provide addresses and how this is linked to their perception of their house. It also attempts to read the identity of a collective whole, for example, a housing society, as seen by its local residents. The address-giving/ way-finding exercise helps understand how an architect-built space is identified and referred to by its users and by the world at large creating an alternate identity for the space.

This research paper looks into the relevance of elements/ markers (created by residents or already existing in the local environment) navigated in address-giving that aid in accessing residences. It analyses why certain landmarks are more popular than others and attempts to find variations (and the reasons behind them) in address-giving within the same housing communities.



**Pooja Ugrani** graduated from Sir J.J. College of Architecture, Mumbai and has a PG diploma in Indian Aesthetics from JananaPravaha, Mumbai. She recently completed her M. Arch. Degree by research from Mumbai University where she analysed the expression of ownership at the boundaries of domains in urban mass housing. She was invited to present the above paper at the CEPT Research Symposium in February 2020 at Ahmedabad. She is currently teaching as Assistant Professor at Acharya's NRV School of Architecture, Bangalore.

pooja.ugrani@gmail.com

## Introduction

Humans have always been intimately associated to the land they inhabit. The Native American proverb – “This land does not belong to you; it is you who belong to the land” – resonates with this idea. The act of providing one’s address is an invitation to let the receiver discover you as you inhabit your abode. It is an act of relaxing inhibitions and saying something more about you. Hence, giving your address to someone is a very strong expression of the resident’s identity.

Taylor (1988) cites Lyn Lofland, a sociologist, who has argued that one of the most significant differences between pre-industrial and modern cities is that in the latter a ‘place order’ – a segmentation of people and activities by location – predominates. In former times a ‘people order’ predominated; all different classes of people were jammed together on the same city streets, and one identified the others based on social factors. (p.167).

This ‘place-order’ is applicable in the Indian context to the cities such as Mumbai and in extension to Navi Mumbai as well. People associate and identify themselves and each other with the location of their residence in the city.

Expressions occur at boundaries of residences, so people can be found, be taken notice of in the faceless ocean of a city, telling each other where they live in their own idiosyncratic ways. Such expressions are also the result of habit. Some have their roots in the expressions of those from previous generations or households that they grew up in. Over the years, they become ways of recreating a familiarity that is home. Even the lack of expression may stand for something.

Although address-giving goes beyond the architectural layout of housing colonies, it is not in the scope of this paper to delve into the concepts of narrative logic, epistemology, on how language and culture come together and on the politics of language (through the analysis of words and language - how and why are they used while giving addresses).

## Definitions/ Related Readings

The focus of this paper is more towards address-giving and what it tells us about the address-giver’s identity and not so much towards the succeeding activities of wayfinding or wayfaring. That being said, some elements such as landmarks may be common to both activities. Following are the definitions considered for this paper.

**Wayfinding:** This can be described as a decision-making process (Passini, 1981). It is a prototypical real-world example of complex cognition (Sternberg and Ben-Zeev, 2001) as it builds upon people’s perception of the environment, memory of past experiences, spatial learning processes, motor processes, and inferential as well as emotional appraisal of navigation options. In the broadest sense, any situation where the presence and/or activities of others, now or in the past, has an observable impact on wayfinding behaviour and cognition can be called “social wayfinding.” (Dalton, Hölscher, & Montello, 2019).

**Wayfaring:** This is a more engaging and less directional activity. It can be defined as a movement of self-renewal or becoming rather than the transport of already constituted beings from one location to another. Making their ways through the tangle of the world, wayfarers grow into its fabric and contribute through their movements to its ever-evolving weave (Ingold, 2007, p. 116).

**Address-giving & wayfinding:** Address-giving is the act of communicating one's address to a desired individual or group in the most efficient manner so they can reach one's house with least inconvenience. This form of address-giving also includes weighing of different options to reach a single destination by the address-giver and then communicating the easiest one.

The act of address-giving automatically puts the wayfinding activity into the strong synchronous social type since there is more than one person actively involved in the decision making with reference to the wayfinding process. (Dalton, Hölscher, & Montello, 2019).

**Landmarks:** Markers are defined as all of the objects that are in some way considered a part of the self and that are clues to appropriation. Landmarks in address-giving are spatial, physical, olfactory, auditory markers whose presence is communicated to the way-finder by the address-giver.

## **The Study Area: CIDCO Housing**

Navi Mumbai is a recent response to the congestion that the island city of Mumbai was facing, bound by water on three sides. Opening out the mainland for development was a conscious move made by the authorities and planners to decongest the island city of Mumbai with respect to housing, and to re-orient the north-south traffic along an east-west direction. Navi Mumbai or then New Bombay was first proposed as a concept in 1965 after the Barve report (Correa, Mehta, & Patel, 1965).

Ever since its conception, the development that the twin city faced has always been in pockets and bursts. Examples of these would include housing projects designed by eminent architects namely Uttam Jain, Charles Correa, Kamu Iyer, Hema Sankalia and Raj Rewal.

For the purpose of this study, a total of 106 houses were surveyed across five CIDCO housing projects in Navi Mumbai. Primary data collection included the following:

- Observations of user behavior for expressions of territoriality, friendship formation, surveillance.
- Observations of physical traces- User customizations/ preferences. Identify markers that express the same
- User perceptions/ opinions- Perception of self, personal status, perception of personal safety, privacy.

Tools used for data collection included questionnaires, inventories, detailed photographs of the individual houses and the compound areas of the housing colonies formed within the housing projects. Secondary data was collected through books, journals, research papers, student reports on the housing projects.

DETAILS OF THE PROJECTS STUDIED FOR THE RESEARCH													
Sr. No.	Architect	Project Name and Address	Scheme	Project commission	Plot area (ha/sq.m.)	Total Built Up Area (sqm)	Floor Space Index	No. of buildings	No. of apartments	Types of units	Area of a unit (sqm)	Year of construction	Income group
1	Hema Sankalav/ Subodh Dhairyawan, (tdil to be verified)	Apartment Owners Association Mass Housing Scheme, Type UDRI Scheme, Sector 3, Sanpada	UDRI housing	CIDCO	Net condominium plot area: 23952 sqm excluding central 3500 sqm RG, tot lots and utilities	23952	1, but due to variation in housing units, 20 houses have consumed all the FSI in one condominium as per one resident	132 (G+2)	149 (143R+6C) X 4 = 596	24, duplex houses present	18-87	1994	Mixed income group
2	Uttam Jain	Sector 7, New Panvel	CIDCO Housing	CIDCO	75,967 Sq.m.	33033	less than 1	285	927	11	18-85		?
3	Raj Rewal	Apartment Owners Association, Sector 21-22, Belapur (as per CIDCO condominium plan), popularly known as Income Tax Colony, Parsik foothills	Demand Registration Survey Scheme	CIDCO	9.5 Ha -2 Ha for school and shopping centre = 7.5 Ha	7	less than 1 owing to the different housing units like duplex, 55 units per acre	(G+1, G+2, G+3, Duplex)	1048	8	20-100	1988-93	Income Tax and Customs officials
4	Kamulyer	Sector 26, Vashi	Demand Registration Survey Scheme 1987	CIDCO	4.836 Ha	20570	less than 1	G+1, G+2	590 (18 sqm)+230 (25 sqm)+120 (35 sqm) = 940	3	18-25-35	1991	Matbadi workers
5	?	Apartment Owners Association Type VS II (as per CIDCO condominium plan) popularly known as JN2 housing, Sector 9, Vashi	CIDCO Housing	CIDCO	Net condominium plot area: 33989 sqm	34054	1	182 (G+2) but few buildings to have gone G+3 because units and buildings don't tally	1232	4	25 to 27	late 70s, condominium plans for revision is dated 1983-85	EWS Housing (as mentioned on condominium plan)

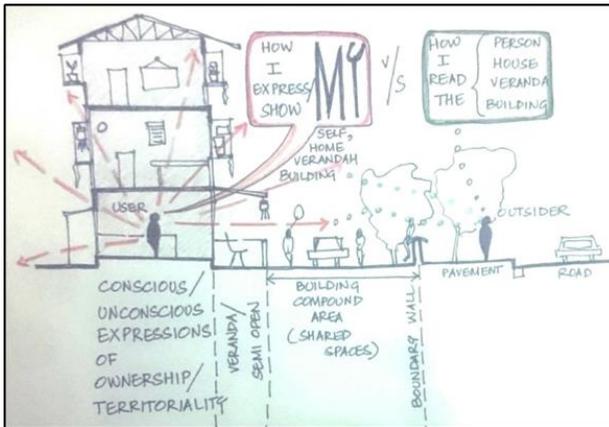
**Table 1:** Tabulation of details of the housing projects studied for the research

## The Process

Here, we describe the process of the primary research and the different factors on which the study was focussed by way of physical surveys and interviews. These factors include the act of address-giving and its elements, boundary conditions, relevance of identity markers etc. The process also looks at the changes in address-giving in recent times.

### 1. How is address given in these colonies?

There are formal and informal methods of giving one's address based on the purpose of sharing it. Informally, addresses are communicated orally over calls made using mobile phones or in person, previously, to acquaintances, friends and relatives. Addresses are written down mostly for formal transactions such as receipt of courier parcels or online deliveries of commodities. A postal address is an example of a formal address. Not much communication with regards to the easiest navigable route happens while sharing this as



**Figure 1:** Sketch on reading expressions of ownership at residence entrances

the way finder is not closely associated with the resident, unless there is urgency in the receipt of the commodity.

While most of the houses studied for this research can be located using their formal address; informal addresses are documented because they are more engaging to the way finder and include eccentric tid-bits of information that many a times only the resident and the way finder can associate to. Whether an address is given formally or informally, landmarks become an essential part of them.

Here, the mention of online editable maps (that merge the formal and informal methods of address-giving since any user can describe or edit the description of a geographical location in her unique way) has been omitted because 72% of the residents confirmed that they did not use technology to give their address and did not have their guests use them for navigation. Residents, who did, mentioned the use of technology as a status symbol. For example, finding address on a “Tab” (referring to a tablet which is a small portable computer that accepts input directly on to its screen rather than via a keyboard or mouse).

### Elements of An Address

When residents were asked to explain how to reach their house from the entrance gate/boundary wall/ nearest railway station, they came up with answers that have been crystallized into the following points that form the elements of an address. For the sake of convenience, these elements have been clubbed under the headings of formal, informal address-giving and landmarks.

#### Formal Address-giving:

- Name: Owner’s name/ surname or children’s names Eg: Sai - daughter (famous girl in society) OR brother’s name as he is the society’s electrician.

- **Numbers, alphabets:** Room/flat number, which floor, building number, sector number. Alphabets are also used for building names, for example, Sector 26, B-28, Room No-2.
- **Place Type:** Name of the colony/ society/ apartment/ node/ place type, for example, Ashirwad Apartments, Vashi, Navi Mumbai.

#### Informal address-giving:

- **Directions and count:** in relation to landmarks. For example, “*samor chi galli*” (the street in front of you), first turn, straight, right *maar ke* second last room (turn right and second last room).
- **Exclusivity:** For example, “*ek hi gully hai.*” (there is only one street out there). In the Income Tax Colony, the portion dedicated to staff quarters was identified as the only colony that had row houses as part of giving address. Other example of exclusivity included only house with a car in front of the house, mentioned as a status symbol.
- **Synchronous strong social wayfinding:** For example, instructing the visitors to ask the watchman or a shopkeeper, or offering to pick up guests from a recognisable point (such as bus-stop, railway station, karate class) half way through as an alternative to complete address-giving.

#### Landmarks:

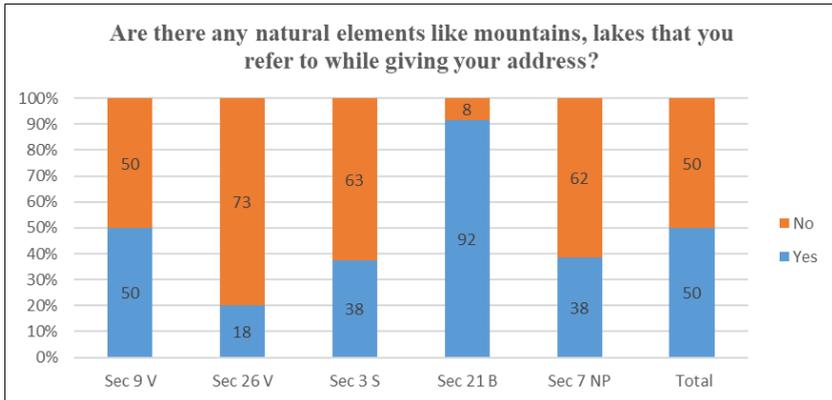
To gather data more exhaustively, the survey was divided into two parts, namely, address-giving from the nearest railway station to the colony entrance and from the colony entrance to the housing unit.

**From the railway station to the colony entrance:** Here, mostly visual or spatial markers were mentioned.

**Natural elements and greens:** gardens planned along with the housing layout were mentioned. Only at the Income Tax Colony, they mentioned a variety of trees such as coconut tree/ Jamun tree/ Neem tree along with Parsik Hills as a natural element. For example, ‘come over to the hill and climb down/ Near Parsik Hills.’

JN2 Housing at Sector 9, Vashi	DRS Scheme Housing at Sector 26, Vashi	UDRI Housing at Sector 3, Sanpada	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
3- 10 mins from/ Mini Seashore	2- Sagar Vihar, Garden at Sec 29	3- central/ garden	7- Parsik Hills/ nearby mountain/	2- Garden
		1- No, big playground	2- Wonders Park	2- Mountains/ Lakes
			1- greenery	1- Adhai lake

**Table 2:** Residents' comments on using natural elements to provide their address



**Figure 2:** Residents' responses to using natural elements to provide their address

Architectural elements: steps get down, water tank with colony name (Sector 3, Sanpada)

Markers as signs: for example, dog board as an index that signifies that there is a dog shop inside.

Public transport/ infrastructure: for example, Income Tax Colony stop/ connected directly from the road.

**From the colony entrance to individual residential units:**

**Visual markers:** These include storeys, heights, colour, materials and household greens.

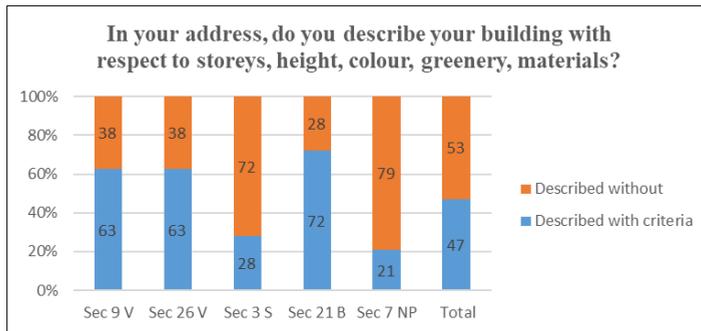
Storeys: Mentions of the floor on which they live, eg: ground floor, first floor etc. Since most buildings are of the same height in the colony, mentions of a three storey building are not made. Residents who stayed in row houses mentioned the same.

Heights: Since most of the buildings are of the same height, it is mostly not included in describing their building, though a few people responded with short/ medium/normal building.

Colour: This varied project wise. Swatches of bright paints for individual houses (JN2 Housing, refer images below) or in case of Sector 26, Vashi, the society identity was so strong that every society painted its walls in a different colour to be identified differently. Many mentions of tiled entrances were made which are looked at as status symbols. For example, grey stone textured tiles. Mostly buildings were painted yellow/ cream for the JN2 housing project with architectural elements like chajjas and corbelling coloured in darker colours. Income tax Colony showed a lot of colours for different houses such as brick red, cream, yellow, light green, blue, etc.

**Materials:** One mention of a glass building as landmark was made. Otherwise it was mostly references to the tiled entrance areas of individual houses.

**Household greens:** While greens have been mentioned previously under visual markers with regards to gardens or trees that are part of the layout, their mention here is to highlight the household greens such as the *tulsi* plant, medicinal plants, decorative potted plants. These are important visual and spatial markers of a residential unit.

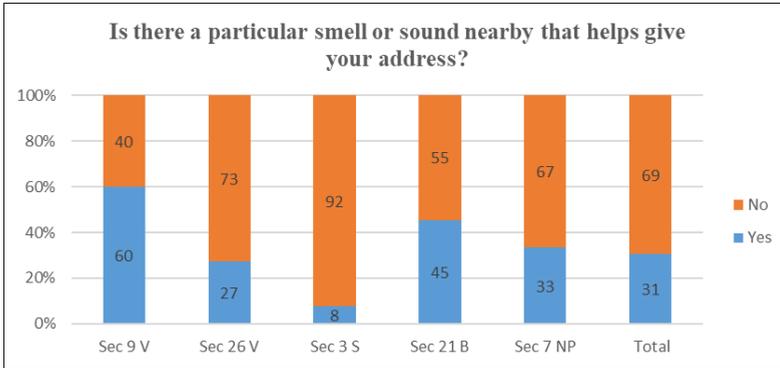


**Figure 3:** Residents' responses to using various attributes to provide their address



**Figures 4 & 5:** Examples of houses where the house owners have marked their territory by painting two walls of their verandah/balcony in a colour different from that of the building.

**Sensory Markers: olfactory and auditory**



**Figure 6:** Residents' responses to using sensory markers to provide their address

JN2 Housing at Sector 9, Vashi	DRS Scheme Housing at Sector 26, Vashi	UDRI Housing at Sector 3, Sanpada	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
1- Bhajan Mantra cassette on full day	2- Vegetable smell, children playing	1- foul smell of dogs	5- Train sound	2- St. Joseph's School sound
1- crows crowing on the nearby tree	1- Chirping birds, irritation of mouse			1- Dogs barking
1- Fish tank & pet parrot.				
1- Dustbin in immediate surrounding				

**Table 3:** Tabulation of residents' comments from the five Housing Colonies on using sensory markers to provide their address

Note: While around 70% of residents denied using the above criteria to give their addresses, the table above shows the responses given by some of the residents who do.

### Classification of Spatial Markers

		JN2 Housing at Sector 9, Vashi	DRS Scheme Housing at Sec. 26, Vashi	UDRI Housing at Sector 3, Sanpada	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
Markers outside the colony	Educational Institutes	2- Sainath School	6- Avalon International School, 2- Swami Vivekanand School	4- Oriental College (built by Jawed)	3- MES Vidyamandir	15- St. Joseph's school (from 15 years), 1- in front of Phadke <i>Shala</i>
	Hospitals/ medical facilities	1- Lakshadweep hospital, Dr.Gude's dispensary (around for 20-25 years)	1- Dental Art	Mhatre Doc. at the gate	1- Apollo hospital (new landmark)	Pan Asia Hospital
	Religious/ congregation	Jain <i>Mandir</i>		2- Patel Samaj/ Patel Hall, 1- Rashtrasamaj Hall	3- Hare Ram Hare Krishna Mandir, Sankalp Bhavan	Saikrupa Hall
	Commercial/ market	1- Mini market, Vegetable market	Waranadukaan, 6- <i>Bhaji market/ Dana market/ APMC Market</i>	Sai <i>Kirana</i> (grocery shop)		
	Public transportation & amenities	Fire brigade, Warana Dairy, around for 30 years.	2- PMC bank, 1- bus depot, from Ghatkopar	4- CIDCO office, Sanpada rly stn, 5- Hindustan petrol pump	ICOR bus stop, 1- Uranphata, 3- HP petrol pump, 3- Wonder Park	1- near Nala Bridge, 1- In front of the road,
	Other residential projects		Aryan Tower, 1- <b>Punit Corner</b>	Other housing colony, Niwara		1- <b>Tulsi Tower</b>
	Greens/ natural elements			2- <b>Garden/mandir in the garden</b>	5- Parsik Hills	
	Restaurants	1- <b>Vaidehi hotel</b>		4- <b>Royal restaurant</b>		
	<b>Markers at the boundary</b>	These included the gates, the presence or absence of boundary walls. Eg: Colony main gate, Gate near St. Joseph's school				
Markers within the colony	Political/ admin offices		2- Shiv Sena office	1- Congress office	1- Society room	
	Tuition class/ other classes	Tuition class	2- 4 Tuition classes, Karate class	6- Tuition classes , 1- dance class	8- Tuition classes at home	8- Tuition class/ nearby/ at home
	Ganpati <i>pandals</i>	ganpati <i>pandal</i> sector wise (garden), Only during Ganpati with <i>pandal</i> in garden.	9- ganpati <i>pandal/</i> sector wise <i>pandals/</i> Sector 26 <i>pandal</i>	2- no ganpati <i>pandal</i>	7- Ganpati <i>pandal</i> - Society one/ Ganpati at the Society room	6- Ganpati <i>Pandal/</i> in society itself/ behind/ in front
	Beauty parlour	Beauty parlour	2- Beauty parlour,	3- Beauty parlour/ 2- parlour near gate	3- beauty parlour	2- Beauty parlour/ at home
	Religious structures		4- <b>ganpati mandir/</b> 3 temples (Ganesh, saibaba, ), 1- church			4- Mahadev <i>Mandir/</i> Temple behind, 1- Gurudwara
	Shops		2- Mobile shop, 1- Vasant <i>kiranadukan</i>		4- 3 shops/ <i>Kamal kadukaan/</i> grocer	
	Water tanks			7- <b>Water Tank</b>		1- <b>Water tank</b>
				Flag pole of Himgiri Society	1- White House	
			1- Mishra Doctor	parking lot		

**Table 4:** Classification of popular markers based on residents' responses while providing address

**Note:** The landmarks in **bold** are the more popular ones that residents used while communicating their address and the preceding numbers are the number of residents who gave a similar response.

## 2. Address-giving and Porous Boundaries

When the residents were asked about which entrance of their housing colony they use to reach their houses, they responded with various comments as shown in **Table 5**. Individual residents, in spite of belonging to the same housing colony gave different landmarks while giving their address, based on their proximity to them and ease of access. Residents and way finders enjoy the choice of navigating to residences and moving in and out of colonies using multiple entrances as per their convenience. This shows that the colonies have porous boundaries.

JN2 Housing at Sector 9, Vashi	DRS Scheme Housing at Sector 26, Vashi	UDRI Housing at Sector 3, Sanpada	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
2- compound/ gate-house main entrance	7- Main entrance	7- Main entrance/ Main gate (staircase) main door (house)	8- Main entrance	7- Entrance one
2- One main entrance only/ Only one entrance	4- falling towards road/ from the main road/ Towards Sanpada highway	5- Snehabandhan/Gurukrupa entry/ Nivara from the station	2- Any entrance/ Not special	4- Single entrance/ Only one main entrance from St. Joseph's School
	3- entrance one	2- 2 entrances, use only front/ friends can come from outside	1- Nearby road	2- From St. Joseph's High School
	2- Chintamani entrance	2- Front entrance	1- Income Tax Society	2- Main entrance
	1- RamdasBhoirnagar sevak office lane	2- Any entrance		1- Back and front whichever is more convenient
		2- Vashi side, Oriental College side		1- B type main gate
		1- Near to house either back or main		1- Road

**Table 5:** Tabulation of residents' comments on which entrance of their housing colony they use

### 3. Communicating the Address (conditions/ preferences)

Address-giving from the railway station included mentions of the colony being CIDCO housing and that the house was located in the East or West side of nodes.

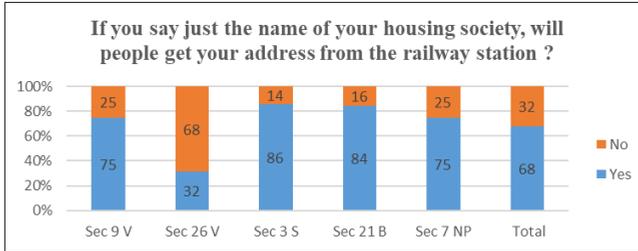
On being asked if the residents had ever faced a problem of people not understanding their address from the boundary wall to their houses 91% replied no, that people get it easily while 9% replied that there was a problem. 15% of residents in the housing project at Sanpada (highest amongst the 5 projects) seemed to be having a problem in communicating their address from the colony entrance.

On being asked if the residents had ever faced a problem of people not understanding their address from the nearest railway station, 89% replied no while 11% replied that there was a problem. 25% of residents in the housing project at Sanpada (highest amongst the 5 projects) seemed to be having a problem in communicating their address from nearest railway station.

DRS Scheme Housing at Sector 26, Vashi	UDRI Housing at Sector 3, Sanpada	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
1- Give landmarks	4- Near station/ Right next to station/ Straight from station/	1- Sandeepani Society	1- Take auto & come straight to St. Jospeh's& ask for building no
2- Use society name/ Give room no.	1- Personally pick them up from Sanpada station	1- No, HP Petrol pump clear landmark	1- Curry leaf plant outside house
	1- Ask public		1- Sector 7 only
			1- We have to get them from auto stand
			1- From station by auto

**Table 6:** Tabulation of residents' comments on alternative methods of giving address

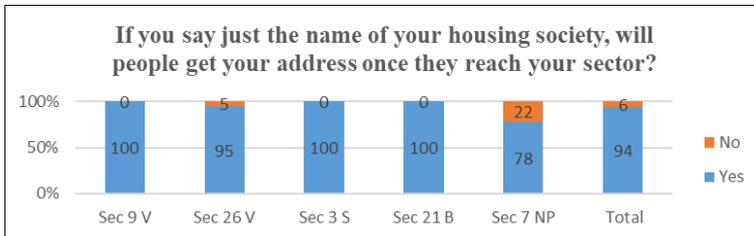
#### 4. Relevance of the housing colony name in address-giving



**Figure 7:** Residents' responses to using name of housing colony to give address from railway stn.

DRS Scheme Housing at Sector 26, Vashi	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
2- No, to Koprigaon by auto, from there it is possible	5- Yes, along with Seawoods stn, Belapur CBD	1- No (School's name and Sector 7)
	2- Yes, housing society name Sameer CHS	4- by auto
	2- only some people/ only income tax	2- E109/ Sector 7, New Panvel

**Table 7:** Residents' comments on using name of housing colony to give address from railway station

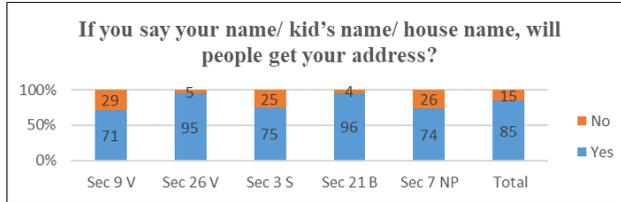


**Figure 8:** Residents' responses to using name of housing colony to give address once they reach the sector

DRS Scheme Housing at Sector 26, Vashi	UDRI Housing at Sector 3, Sanpada	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
1- by road	3- Yes/ Sec 3/ by road/ outsiders have a problem	1- ICAR Colony	2- Panvel/ only residence

**Table 8:** Residents' comments on using name of housing colony to give address once they reach the sector

## 5. Relevance of the child's name/ house name in address-giving



**Figure 9:** Residents' responses to using their child's name/ house name while giving address

JN2 Housing at Sector 9, Vashi	DRS Scheme Housing at Sector 26, Vashi	UDRI Housing at Sector 3, Sanpada	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
2- Husband's name	7- Father's/ husband's name	2- Sai - daughter (famous girl in society)/ 3 daughters famous in all of Sanpada	12- Father's name/ Commando Tulit	5- Father/ Husband's name/ Teacher's house/ Shivrama
2- Surname/ (Ambre), depends.	3- Name (depends)/ Surname/ Vishwanath	2- Father's name/ Identified by father's name because he is a social worker	3- Kid's name/ Yes Swapnil, everybody knows/ Son's name	4- Daughter's name/ Son's name/ Kid's names/ elder son
1- Koli's home	2- Son's name/ (Sri Ram)	2- Only number/ B3	2- Mother's name/ Mrs.Shetty, her name works.	2- Grandmother's name/grandfather's name- Tripathi Sir
1- No name plate & no name given	1- Grandfather's name	1- Son's name	1- Daughter's name	1- Surname
1- no, since it is huge	1- brother's name, society electrician	1- Powar's home	1- Anybody's name	1- block no: A-8, 4
	1- Daughter's name (Rudrakaghar)	1- Only surname	1- Shinde Sir kebaajumein	1- No kid
	1- Everyone's name		1- Badve's house	
			1- Previous owner's name	
			1- Not needed, address only	

**Table 9:** Residents' comments on using their child's name/ house name while giving address

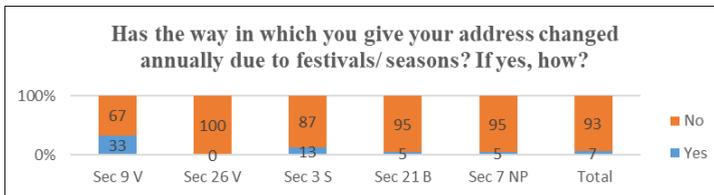
## 6. Changes in Address-giving

Almost all residents (97%) confirmed that their address-giving had not changed with time, except one who mentioned that there was an RTO before (DRS Scheme Housing, Sector 26, Vashi). On being asked if address-giving changed annually due to festivals/ seasons, 93% said no and 7% said yes because of Ganpati pandals, Navratri celebrations and *Dahi-Handi* celebrations in the adjoining parks. One resident mentioned that the festival is celebrated outside the colony (Panvel) and hence it did not affect the address-giving.

Following are a few of the residents’ responses to how address-giving has changed with time:

JN2 Housing at Sector 9, Vashi	DRS Scheme Housing at Sector 26, Vashi	UDRI Housing at Sector 3, Sanpada	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
2- Not yet but will change/ No, hotel has been there since 26 years	1- Sector and society name	1- We are new so lots of confusion within the society	1- Now closer to Apollo hospital which came up later	4- Rikshaw stop, opposite Tulsi tower/ Adhe Colony/ Bridge, St. Joseph's, Waranatapri/ Water tank, St. Joseph's only from 15 years

**Table 10:** Residents’ comments on how address-giving has changed with time



**Figure 10:** Residents’ responses on how address-giving changes during festivals

JN2 Housing at Sector 9, Vashi	UDRI Housing at Sector 3, Sanpada	DRS Housing at Sector 21-22, Belapur	Housing at Sector 7, New Panvel
1- Central Park Ganpatipandal	2- Yes, Ganpatipandals/ during festival pandalnavratri	1- Ganpati at the society room	1- Y, Navratri - ground opposite celebration, dahihandi

**Table 11:** Residents’ comments on how address-giving changes during festivals

## Observations and Analysis



**Figure 11:** Plan of JN2 Housing, Sector 9, Vashi showing how multiple entry exit points facilitate an outward looking housing project connected to the city. (Source: Author)

- Address-giving as an activity can include the mention of smells and sounds, but it isn't the most popular way of giving them.
- Multiple routes are taken to reach various houses in these colonies due to porous boundaries. Some landmarks are more popular than others due to proximity to the taken route or due to their association with the residents. Mostly landmarks are spaces frequented or used by the residents.
- In the JN2 Housing at Sector 9, Vashi, different houses, although in close proximity of each other, gave different landmarks as part of their address-giving in contrast to gated communities which would have given only one or two landmarks thanks to the limited entry/ exit points they possess. Porous boundaries of housing colonies facilitate outward looking built spaces where its residents identify better with the city at large as compared to a present day gated community. Although the people identify themselves to different portions of the city when it comes to landmarks, there is a collective identity due to the typology of housing they share with each other.
- When the boundaries of spaces are not clearly defined, it becomes difficult to identify and find them. Comparatively, the Sanpada housing colony seems to be facing higher problems than the rest with respect to address-giving and wayfinding. This may be due to the absence of prominent landmarks. For a house in Sanpada, the resident mentioned that there were four entrances with no main gate. In some other cases, the absence of

a boundary wall (cases where the boundary wall becomes a seating) is mentioned. Such absences create difficulties in giving addresses.

- Proximity to the landmark has not been the only criteria for the choice of landmarks the residents used in giving their addresses. For example, Ganpati pandals were not used to give addresses by a majority of the residents, probably because they are temporary or probably because when they were interviewed it wasn't the Ganpati season. Also, *pandals* are territorial, so one may or may not associate with them even if one is close to a *pandal*.
- The Income Tax colony showed great diversity in the social class of people who stayed there. Here address-giving changed based on if you owned a four-wheeler or not. Also due to the location of the housing colonies, houses closer to the bus stop gave addresses that included bus routes whereas others gave references to other modes of transport such as trains, cars, autos, etc. Also due to the variation in the topography some houses while giving addresses included natural elements like the Parsik Hills (Eg: climb up the hill or go around the hill), while other houses from the same colony would give their address in a different fashion.
- The mode of transportation used to reach a certain residential unit becomes important in wayfinding. In many cases residents mentioned how their address-giving changed when their guests came to their houses by using trains, buses, auto rickshaws or walking. Some others mentioned how auto rickshaw drivers would play an active role in transporting the way finder to the desired destination aiding the process of strong synchronous social wayfinding.
- Landmarks given from the railway station and from the colony entrance to reach the house were different by the same address giver. Typically, the resident would give the most popular landmark from the station (each housing colony had one or two of these) to reach the vicinity of the colony. From this point at the colony entrance to the residential unit, a greater variety in the choice of provided landmarks was observed.
- Landmarks aren't always universally understood. In some cases, they cater to a smaller group in society. Eg: The Income Tax colony becomes a popular destination amongst Income Tax officials and hence that group finds it convenient to way find.
- Of the five housing projects studied, some occupy the entire sector of the node while others share the area with other facilities. It is easier to identify housing colonies that occupy the entire sector as these sectors come to be identified only by those specific housing projects as opposed to a mixed used sector where the popularity is shared with other landmarks such as schools, markets, etc. This might be one of the reasons why some housing colonies could not be identified from the nearest railway station, while others could.
- Naming of colonies can be seen as an expression of collective identity. The studied housing projects were initially identified by CIDCO using numbers, alphabets or housing schemes such as JN2 Housing or DRS Scheme Housing. The residents on

inhabiting the buildings formed co-operative housing societies and came up with personalised names such as Siddhivinayak Co-operative Housing Society or Jai Maharashtra Society for smaller clusters within the housing project. These housing colony names become important elements of address-giving.

- Sometimes the landmark becomes more important than the name of the colony or project. Thus, a resident has association with a marker that is part of the city and hence starts belonging a little more to the city.
- Finding a house by using the kid's name or father's name or surname is something that reflects on which family member is more visible outside the house/ spends more time in the common spaces. Their mobility defines the geographical extent to which this method of wayfinding can be used. The other people apart from children who were "famous" and easy to find in the colony were the service providers. For instance, the colony electrician's address was known to all and hence anyone could direct you there. The other example was a school master who was revered and hence everyone knew his house. Commercial ventures like conducting tuition classes or beauty parlour in the house also lead to an increase in the popularity and hence made it easier to reach these houses by asking anyone in the colony.
- This means that there are people present in the colony to ask for the popular family member. So, address-giving thrives on strong synchronous social wayfinding.
- The change in address-giving during festivals by residents implied the degree of involvement of the residents themselves and of the colony collectively in the celebrations. These group engagements increase solidarity and strengthen collective identity.
- Not much change was observed in the manner in which the residents had given their address through the years. A few mentions about newer landmarks such as hospitals were made that had been included in the address-giving.
- It was observed that using technology to give and find addresses wasn't very prevalent in the housing colonies studied.

## Conclusion

The concept of being enmeshed in the world in a tangle of constantly changing human and non-human relationships is put forward by Ingold (2007, pp. 3, 79) The act of wayfinding through a housing colony such as the ones studied involves witnessing these myriad relationships and immersing oneself in the world cultivated and constantly fed by the users and designers of that environment. The identity of these housing colonies is so enmeshed in the city, thanks to its porous boundaries that the mere act of reaching these dwellings becomes an enriching experience to any way finder who truly identifies with the city.

A study such as this enlightens how a housing project can mean so much more than an architect's vision of it in terms of plans, sections, elevation, built up space, block and void, etc. Its identity resides collectively within peoples' memories that get accessed and modified constantly. These housing projects are spaces that look outwards, spaces that are connected to the city.

*"EngaOoru Madras-U,  
IdhukuNaangaThaane Address-U" (Kabilan, 2014)*

Loosely translated, the above verse in Tamil means,

"Our hometown is Madras,  
We are its identity (we are what makes Madras, Madras)" (Sucheendra, 2010).

It is interesting how the poet uses the word 'address' in place of identity (the literal translation of the second line being, we are its address). We are defined by the place we live in. People perceive our identity based on where we live.

Our cities are slowly becoming non responsive, sterile and homogenous. Studies such as these, attempt to bring to light the labyrinthine complexity that these designed housing typologies of the previous decades possess and how we as sensitive designers might learn from them and incorporate contextual portions into future housing projects. This may be our only hope to retain eccentric individual and collective identities in the urban palimpsests that we live in today. ■

#### **Declaration:**

The data on the housing projects for writing this paper was collected for the author's M. Arch. Degree thesis titled "Evaluating the boundaries of domains in urban Indian environment" submitted to the University of Mumbai.

#### **Acknowledgements:**

I thank Prof. Mustansir Dalvi, my research guide, and the students of AIKTC SoA, New Panvel who helped me survey and conduct interviews on site.

#### **Glossary of Terms:**

*Bhaji* (Marathi) vegetable

*Dukaan* (Hindi/ Marathi) shop

*Kirana* (Marathi) grocery

*Mandir* (Hindi/Marathi) temple

*Pandal* (Hindi/ Marathi) a temporary structure set up usually to venerate a god or goddess

Right *maar ke*/ left *maar ke* (Hindi) on taking a right/ on taking a left

*Samor chi galli* (Marathi) the lane in front

*Shala* (Marathi) school

*Tulsi* (Hindi/ Marathi) holy basil plant

## References

- Correa, C. M., Mehta, P., & Patel, S. B. (1965). *Marg*, XVIII(3), 29.
- Dalton, R. C., Hölscher, C., & Montello, D. R. (2019). Wayfinding as a Social Activity. *Frontiers in Psychology*.
- Deasy, C. M., & Lasswell, T. E. (1985). *Designing Places for People: A Handbook on Human Behavior for Architects, Designers, and Facility Managers*. Whitney Library of Design.
- Haider, I., & Kolay, S. (2017). Study of Wayfinding Behaviours in an Outdoor Environment.
- Ingold, T. (2007). *Lines, a brief history*. London and New York: Routledge.
- Jacobs, J. (1961). *The Death and Life of Great American Cities*. Penguin Books.
- Kabilan. *Madras song*. Chennai, Tamil Nadu, India.
- Lofland, L. H. (1998). *The Public Realm: Exploring the city's quintessential social territory*. New York: Aldine De Gruyter.
- Lynch, K. (1960). *The Image of the City*. Cambridge: MIT Press.
- Sucheendra. (2010). Retrieved from <http://www.lyricdelights.com/2016/02/15/madras-enga-ooru-madras/>
- Taylor, R. B. (1988). *Human Territorial Functioning: An empirical, evolutionary perspective on individual and small group territorial cognitions, behaviors, and consequences*. Cambridge: Cambridge University Press.
- Ugrani, P. C. (2017). Porous Boundaries and the Appropriation of Space in Urban Mass Housing. *International Conference On Theory of Architectural Design: Global Practices Amid Local Mileau*, 17-21.