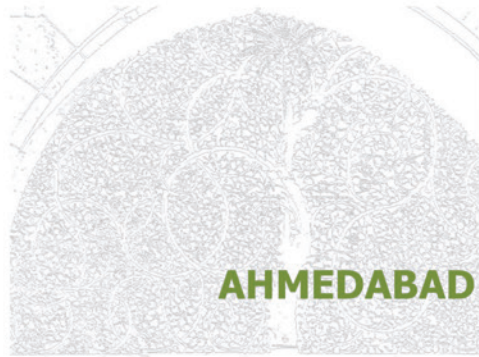


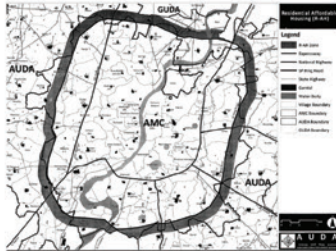
Preparation

AHMEDABAD HOUSING

AHMEDABAD HOUSING : Overview



A Brief on Ahmedabad
(You can have a quick look, it's not a necessary reading, it's an overview of the city compiled together)



Growth of the city

ch.2
L.A. glance

FIG. POLYCENTRIC GROWTH OF AHMEDABAD CITY

FIG. OVERALL GROWTH MAP OF AHMEDABAD CITY

Housing Typology with Time

ch.2
History - a glance

CHRONOLOGY OF SHIFTS IN HOUSE TYPOLOGIES IN AHMEDABAD

Hostels, dormitories? YMCA, AES hostels etc.

Employee provided housing?
• ATIRA housing?
• LIC housing?

State built - Public Housing

Community led housing.

Bungalow schemes, plotted development in outskirts.

Redeveloped apartment buildings in old city.

Large Developer - driven projects of multiple blocks

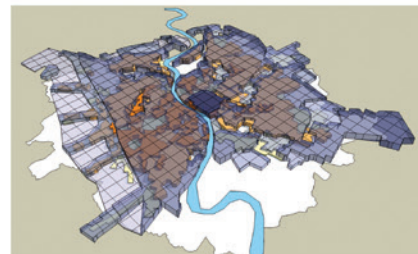
Single block buildings

Central villages transformed into informal settlements mix of owned and affordable rental housing (dormitories)

Chavlis



existing built form and density(2012)



proposed built form and density(2021)

Can you think of other forms of housing that we may missed? Does form of housing change depending on who is building it or how it is financed?

Development plan for 2021_Ahmedabad

<https://drive.google.com/file/d/112xwF4uVhUqP5A7E1XQzwwjRg5r0B/view?usp=sharing>

Areawise housing price in sq.ft

POPULAR INVESTMENT HOTSPOTS AFFORDABLE

Bopal	13,244/ sq.ft	-2.8%
Chandkheda	13,751/ sq.ft	30.4%
Shela	13,016/ sq.ft	0.0%
Nikol	12,281/ sq.ft	-2.49%
Gota	13,066/ sq.ft	0.0%
Navro Naro.	11,892/ sq.ft	-0.32%
Thaltej	14,995/ sq.ft	-2.39%
Vastral	12,281/ sq.ft	-1.90%
Sabharwal	11,388/ sq.ft	2.75%
Dodakdev	12,215/ sq.ft	-3.79%

POPULAR INVESTMENT HOTSPOTS AFFORDABLE

Navro Naro.	11,892/ sq.ft	-0.32%
Mannargani	14,916/ sq.ft	-0.14%
Gota	13,066/ sq.ft	0.0%
Vatva	11,671/ sq.ft	1.14%
Sarjapur	13,907/ sq.ft	-0.71%
Vastral	12,281/ sq.ft	-1.90%
Nikol	12,281/ sq.ft	-1.90%
Bopal	13,244/ sq.ft	-2.8%
Park	15,458/ sq.ft	-0.3%
Chandkheda	13,751/ sq.ft	30.4%

POPULAR INVESTMENT HOTSPOTS AFFORDABLE

Vastral	12,281/ sq.ft	-1.90%
Navro Naro.	11,892/ sq.ft	-0.32%
Changekar	13,374/ sq.ft	-0.38%
Vatva	11,671/ sq.ft	-4.49%
Lambha	11,692/ sq.ft	1.59%
Thakurba.	11,790/ sq.ft	30.21%
Navro Naro.	11,892/ sq.ft	-0.32%
Vastral	12,281/ sq.ft	-1.90%
Nikol	12,281/ sq.ft	-1.90%
GDC Naro.	12,241/ sq.ft	0.0%

- <https://housing.com/in/buy/real-estate-ahmedabad>
- <https://www.magicbricks.com/Property-Rates-Trends/ALL-RESIDENTIAL-rates-in-Ahmedabad>
- <https://www.99acres.com/Ahmedabad-Real-Estate.htm>

Important sites you can refer while designing.

AHMEDABAD HOUSING : Existing Studies

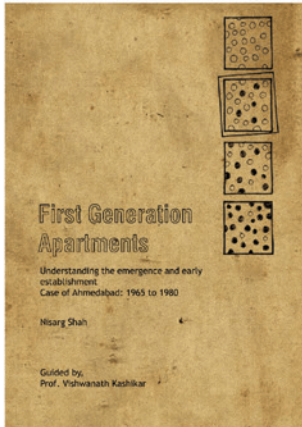
niloshas thesis has many contemporary housing examples

can you upload the second part too?

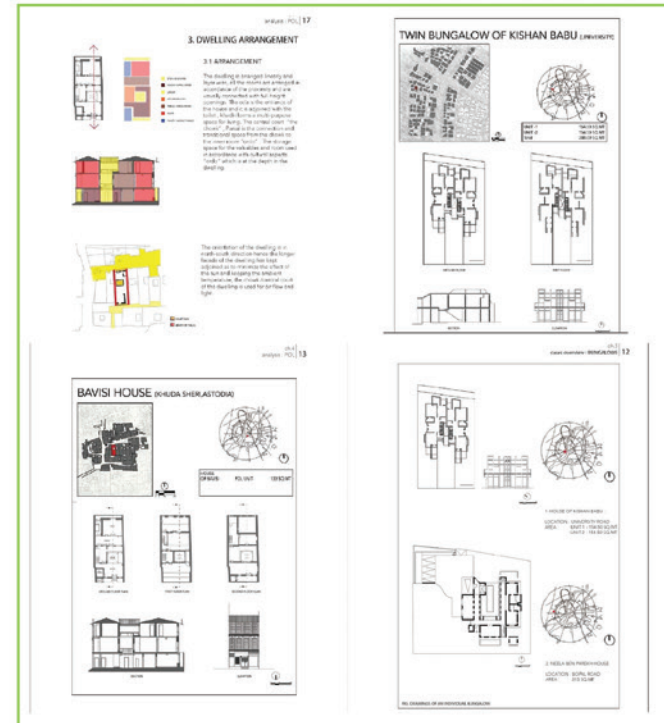


MONOTORY IN URBAN HOUSING
Shilpa Datta
Guided by Vishwanath Kashikar

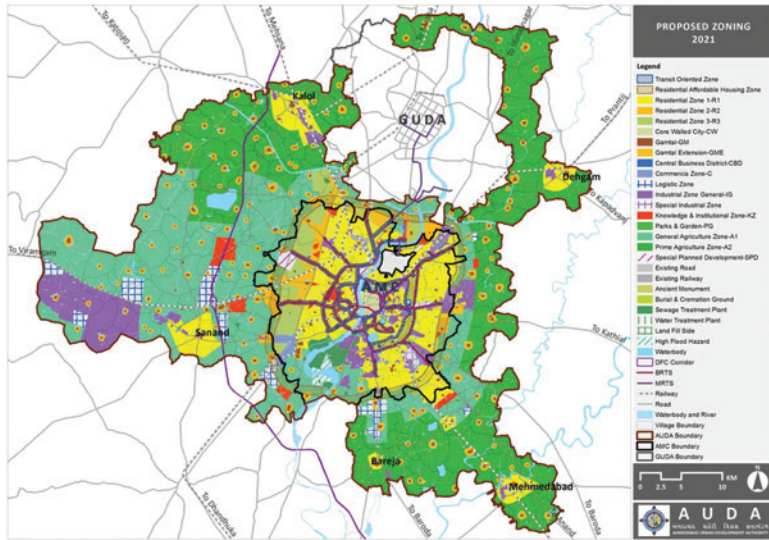
nisargs thesis is on early ahmedabad apartments



Excerpts form the reading which might be helpful.



AHMEDABAD HOUSING : Profile



master plan for 2021

www.hcp.co.in

AUDA Development Plan 2021 | HCP

Ahmedabad Urban Development Authority (AUDA), is in the process of revising the Development Plan for Ahmedabad city for the coming ten years (2021). AUDA sought...

Mentions all the changes, permissible F.S.I.s and related changes in different zones of the city.

www.deshgujarat.com

AUDA's 2nd Revised City Draft Development Plan 2021 for Ahmedabad

Towards new heights Ahmedabad, 6 February 2013 On 1st of February, 2013, The Ahmedabad Urban Development Authority (AUDA) called media persons and gave presentation on the draft prepared about Ahmedabad city's new development plan 2021. A link to this do...



CEPT University
Kamdhak Lalbhai Campus, University Road, Navrangpura, Ahmedabad-380015

City Profile: Ahmedabad

Darshini Mahadevia
Rone Doshi
Suchita Vyas

CUE Working Paper 26
September 2014

Centre for Urban Equity (CUE)

CEPT University | UNED | IDRC | CKD

The Research (1st Part) lays out the relevant urban context by discussing the city's demography, transformations since liberalization and their impacts for urban poverty and inequality; the historical growth of the city and the resulting spatial segmentation; the status of housing amongst the urban poor and low-income groups; and the urban development paradigm in terms of planning, housing, basic services, street vending and public transport.

Name of Ward	Ward no. (AMC)	Total no. Habs	Total no. Population	Total Male Population	Total Female Population	Total Population Between 0 to 6 years	Total Male Population Between 0 to 6 years	Total Female Population Between 0 to 6 years	Total SC Population	Total ST Population
AHUDA	0001	15335	49408	25983	23425	4375	2307	1848	739	266
KAJLIAR	0002	13339	32630	20564	12066	1366	2803	2481	163	447
CHANDIYAR	0003	13330	43441	21768	21673	4425	2626	2675	1362	762
SHANKAR	0004	14506	88130	35137	52993	8440	4441	3999	2368	1219
BARODA	0005	12632	14831	29142	15681	8335	6276	884	2411	1245
JAMALPUR	0006	12424	84246	39542	44704	7000	3613	3387	2951	1511
FAIZ	0007	18833	83330	41139	42191	6418	3476	2488	1341	1068
VEDNA	0008	27744	133134	63882	69252	12408	6702	5686	14004	7340
CHANDIYAR	0009	14138	88911	36303	52608	5604	2802	2402	11001	1060
VARANASIPUR	0010	13839	10447	24025	27574	4530	2419	2111	1667	894
LP JIJAZAR	0011	14974	74651	39278	35373	6862	3637	3225	8006	4387
MAHARAJA	0012	20629	88652	45471	43181	6964	3884	3072	7136	1133
NAVATOLAJ	0013	17337	73834	41108	32726	7334	3948	3244	4342	3473
NAVATOLAJ	0014	16288	74687	39225	35462	8710	4626	4089	28811	10211
SAMANALI	0015	14402	58346	30807	27539	7434	3909	3443	13834	7279
DEVIWADI	0016	12441	64370	34862	29508	8246	4438	3888	8100	4262
MANSURPUR	0017	13368	64778	31368	33410	7305	4068	3341	9108	3644
CHANDIYAR	0018	13742	147131	73440	73691	48511	24911	24200	18033	10100
KAJLIAR	0019	10033	15943	29173	33743	6533	3449	2842	1381	1273
BARODA ROAD	0020	14876	77928	42130	35798	9368	5217	4549	16449	847

ahmedabadcity.gov.in

Demographics :: Ahmedabad Municipal Corporation

add description

Primary data on Ahmedabad.

Ward-wise Data of AMC Area: Census 2011.

AHMEDABAD HOUSING : Cost

Cost of Construction in Ahmedabad

	Job	Price
1	RCC & Finishing Work	Material – Rs. 1850/-
2	Only RCC Work	Material – Rs. 1260/-
3	Excavation	Material – Rs. 630/-
4	P.C.C	Material – Rs. 5340/-
5	Ply Shuttering	Material – Rs. 350/-
6	AAC Block Work	Material – Rs. 165/-
7	Internal Plaster	Material – Rs. 60/-
8	External Plaster	Material – Rs. 90/-
9	Waterproofing Work	Material – Rs. 180/-
10	External Painting	Material – Rs. 16/-

- Above mentioned rates are per square foot / meter cube.
- Above cost includes labour & material (depends on work)

Areawise property rates in Ahmedabad



www.makaan.com

Property Rates in Ahmedabad - 2020 - Real Estate Property Price & Trends in Ahmedabad - Page 4

Page 4 2020 Property Rates in Ahmedabad - Search for residential property price & real estate trends & Compare area wise property rates across Ahmedabad. Check Property Index Ahmedabad on Makaan.com...

Areawise Land price in Ahmedabad

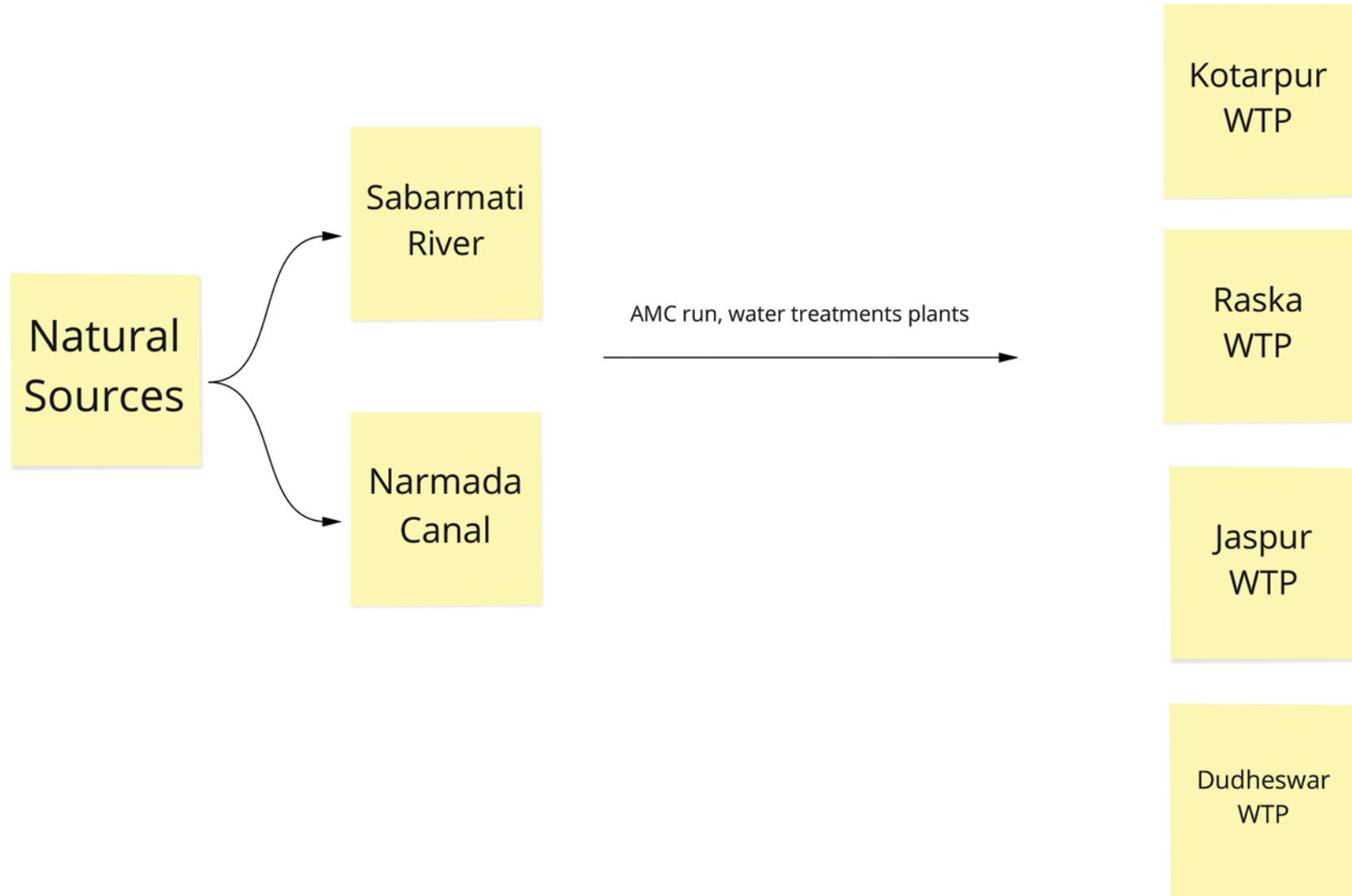


www.makaan.com

Property Rates in Ahmedabad - 2020 - Real Estate Property Price & Trends in Ahmedabad - Page 4

Page 4 2020 Property Rates in Ahmedabad - Search for residential property price & real estate trends & Compare area wise property rates across Ahmedabad. Check Property Index Ahmedabad on Makaan.com...

AHMEDABAD HOUSING : Water Sources



AHMEDABAD HOUSING : Websites

Areawise Land price
in Ahmedabad



 www.makaan.com

Property Rates in Ahmedabad - 2020 - Real Estate Property Price & Trends in Ahmedabad - Page 4

Page 4 2020 Property Rates in Ahmedabad - Search for residential property price & real estate trends & Compare area wise property rates across Ahmedabad. Check Property Index Ahmedabad on Makaan.com....

1. <https://housing.com/in/buy/real-estate-ahmedabad>
1. <https://www.magicbricks.com/Property-Rates-Trends/ALL-RESIDENTIAL-rates-in-Ahmedabad>
1. <https://www.99acres.com/Ahmedabad-Real-Estate.htm>

Important
sites you can
refer while
designing.

AHMEDABAD HOUSING : GDCR Updates

GDCR 2017

Built up area more than 5000

17.3 Grey Water Recycling
17.3.1 Applicability
 Any owner applying for approval for construction of a new self-contained building of category and load shall, up to the extent of water, shall make provision for reuse of recycled water.

17.3.2 Provisions of Recycling System
 The applicant shall comply with the applicable codes, standards, designs, plans, calculations and specifications used by the authorities for the provision of the system for recycling the grey water. Such systems shall include the provisions for following:

1. Treated grey water → separate supply system → water closet, urinal, bidet, shower, etc.
2. Water closet → separate supply system → dual flush toilet
3. Recycle water → additional sewage grey water → to sewerage
4. In a nature or manner or in a way that shall not constitute a nuisance or hazard or cause a health hazard or violate the provisions of these regulations.
5. The recycled water shall be used for non-potable, no contact purposes unless permitted and shall not be connected to any potable water system of local authority. However, the water generated by the recycle plant can be connected to local authority sewer network if it is of the same quality as maintained or compared authority GDCR.

The recycled water shall be used for non-potable, no contact purposes

6. Separation of grey water
 Water of toilet → siphons/traps
 Grey water → recycle plant



7. Separate plumbing for grey water
 a. Every developer shall provide the newly constructed building with the provision of down take plumbing for grey water, recycling water plant, storage and reuse piping before starting the building.

8. Non-potable use of grey water
 Toilet flushing
 Step in garden, laundry, etc.
 Washing of floor, etc.



There is no mention of residential building

Updates 2019

ahmedabadcity.gov.in
Departments :: Ahmedabad Municipal Corporation
 add description...

Ahmedabad Municipal Corporation operates and maintains 9 Sewage Treatment Plants, 45 Sewage Pumping Stations and approximately 2500 kms. long Sewage Network throughout the city area.



www.thehindu.com
Gujarat will supply treated waste water for industrial use
 State has detailed plan for directing fresh water for drinking, irrigation...



timesofindia.indiatimes.com
The hidden opportunity in wastewater reuse
 Earlier this year, the government of India launched a new Ministry of Jal Shakti with an aim to work on the escalating water crisis in the country. This ministry was born out of merging the...



www.ahmedabadcity.gov.in
What are the Uses of Small Sewage Treatment Plants
 A small scale wastewater treatment is specially used for domestic sewage. Such treatment plant can be connected to small sewage treatment plants, etc.

Small scale sewage treatment plant for domestic waste

What can be termed as a Small Sewage Treatment Plant?

Plants that handle about 1 to 100 kls (kilo) per day at collect the small sewage water treatment plants. They can be easily placed in underground tanks and having regular tanks. Covering and maintaining these small plants are quite easy and have a low running expense as well and the treated water from this plant can be used in flushing after using disinfecting chemicals.



www.ahmedabadcity.gov.in
3 Common Problems of Sewage Treatment Plant in India - ChangeWater
 We have presented a list of three things that are common to most of the sewage treatment plants in India. You can also understand the way you can further improve them.

3. Odour issues in the sewage treatment plant in India

The sewage treatment plants in India can suffer due to the presence of hydrogen sulphide along with organic acids and microorganisms which then grows bacteria that reduces sulphur. This bacteria then produce H₂S, i.e., hydrogen sulphide which is a foul smelling colourless gas that is extremely corrosive. Due to this, it becomes important to remove hydrogen sulphide gas, to prevent downstream equipment failures.

The colour can come from any gas. Thus, it becomes very difficult to identify the source. In order to know the source and remove the smell, you need to call the plant initiators who can check your plant for you.



www.ahmedabadcity.gov.in
Features of Grey Water | Grey Water Recycling Treatment Process
 Sewage water is wastewater that comes from toilets, showers, and sinks. It is not clean water but can be recycled and reused for many purposes.

Quantity of Greywater Found in Households

About 70% of the total wastewater produced in households is greywater. This is with conventional flush toilets but with dry toilets, the percentage can rise up to 90.

When we talk about greywater sources, we see that the maximum percentage comes from showers, kitchen sink, and laundry consisting of organic carbon, surfactants, and suspended solids. Phosphorus is mostly found in dishwasher water reuse. There is limited nutrients load whereas organic carbon load can range between 20% to 70% depending on its source. Nutrients deficiency is one of the reasons why greywater treatment systems face operating deficiencies at the household level.

Greywater Reuse Subsurface Applications

- Irrigation
- Toilet flushing
- Dishwashing
- Laundry
- Cooling

Treatment Process

There are various methods used to treat greywater for reuse and this is very much required in areas where there is scarcity of water. Treatment systems reduce the contaminants present in greywater which after processing can be reused.

There are 2 methods to treat greywater, physicochemical treatment or biological treatment. The former include filtration, reverse osmosis, adsorption, etc., while the latter includes recycling biological contractors, activated sludge systems, etc.