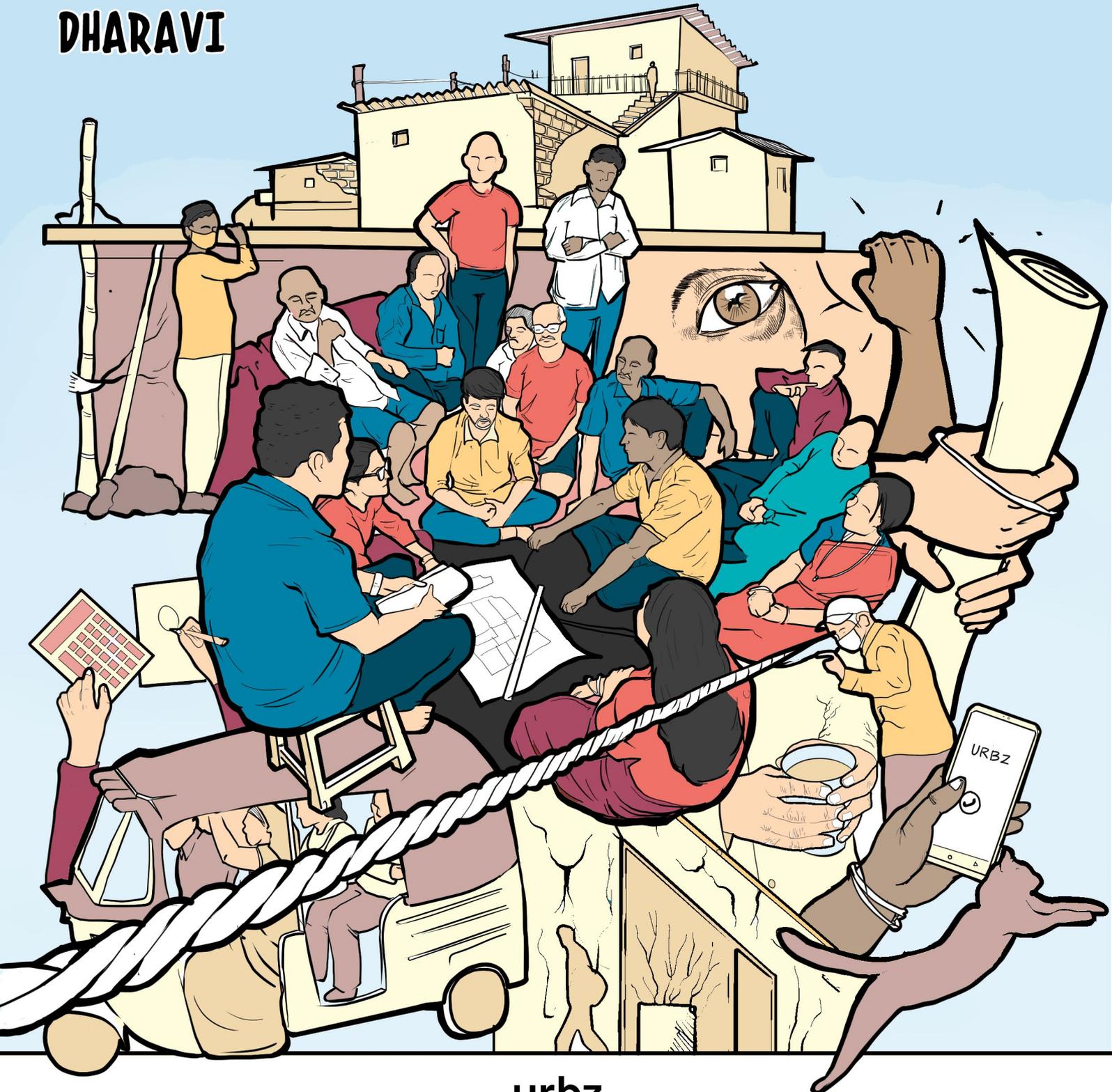


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THE GROWTH OF VITHAL BHASKAR CHAWL, DHARAVI



PREFACE

This project depicts a story of participatory redevelopment from Dharavi, Mumbai, in a form that we love - the comic.

The research undertaken includes a combination of shared knowledge and experiences of the residents of Vithal Bhaskar chawl, the local building contractors and the architects at urbz.

The comic book portrays the story of the redevelopment of Vithal Bhaskar chawl through sketches. Our aim is to get the attention of readers from all backgrounds.

Its preparation posed many challenges; conveying the complex story through easy to understand sketches, making accurate compositions and ensuring a context-sensitive representation. All through the process we pushed the boundaries of our own vision and limitations.

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| 01 | PROLOGUE
Establishing the context of the participatory redevelopment project initiated by the residents. | 2-3 | 06 | THE WORKSHOP
A peek into a workshop organized with the residents of Vithal Bhaskar to discuss the design. | 15-16 |
| 02 | THE CONTRACTORS
The history of building and rebuilding Vithal Bhaskar Chawl. | 4-6 | 07 | BACK TO WORK
The team resumes work after a long virus-induced hiatus. | 17-18 |
| 03 | THE RESIDENTS
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The work starts with tearing down and rebuilding! | 19-21 |
| 04 | THE BRIEF
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urbz interns visit the Vithal Bhaskar site. | 22-24 |
| 05 | THE DESIGN
The urbz team negotiates the site and works on the design. | 12-14 | 10 | EPILOGUE : VIBRANT NEIGHBORHOODS
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THE GROWTH OF VITHAL BHASKAR CHAWL, DHARAVI

Special thanks to

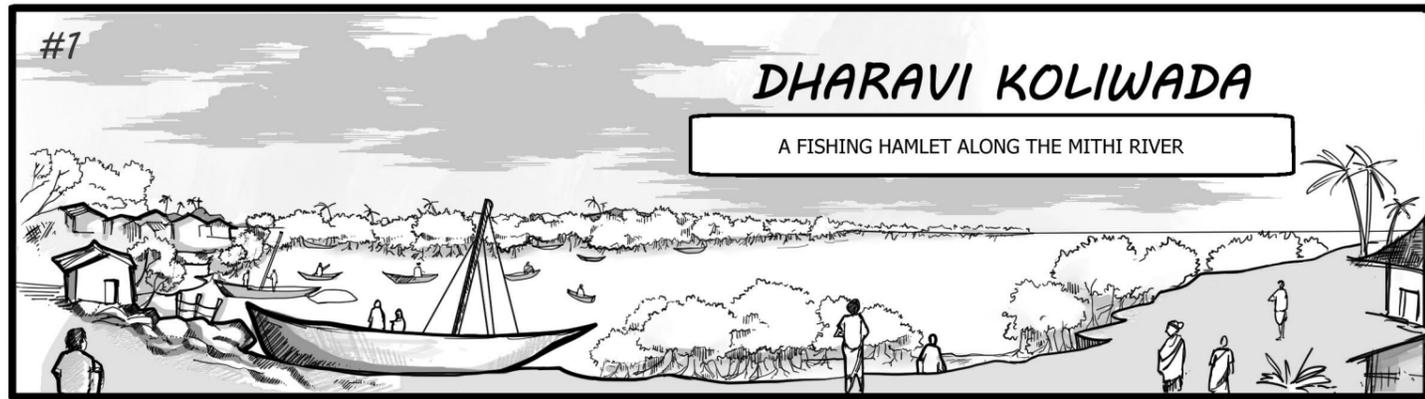
The residents of Vithal Bhaskar for making this book real.



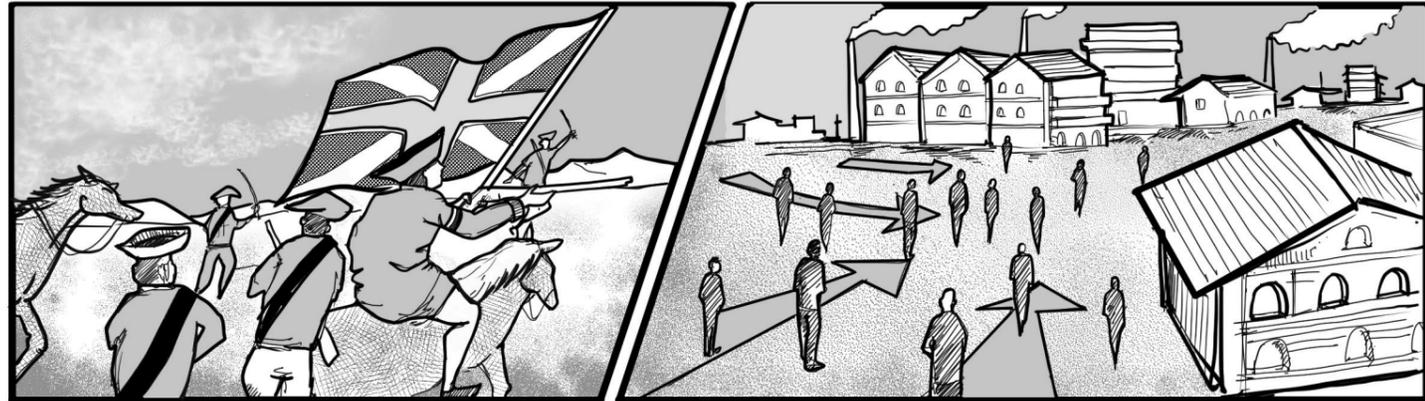
urbz

DHARAVI KOLIWADA

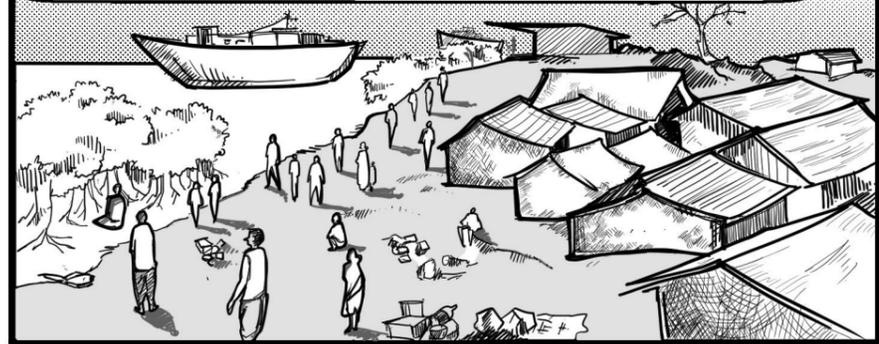
A FISHING HAMLET ALONG THE MITHI RIVER



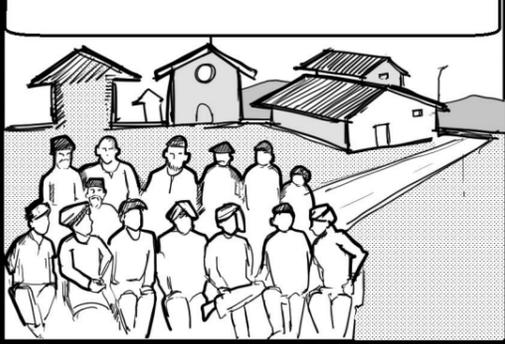
THE BRITISH ESTABLISHED COTTON MILLS IN THE CITY, ATTRACTING WORKERS FROM ACROSS THE COUNTRY



MANY WORKERS AND ARTISANS FOUND THEMSELVES HOMELESS IN THE CITY, TAKING CHARGE OF THE SITUATION, THEY BUILT THEIR OWN HOMES AROUND DHARAVI KOLIWADA.



SOON COMMUNITIES ORGANISED THEMSELVES TO BUILD THE NEIGHBOURHOOD....BUT THAT'S A WHOLE OTHER STORY....



LET'S GO BACK TO DHARAVI KOLIWADA.....



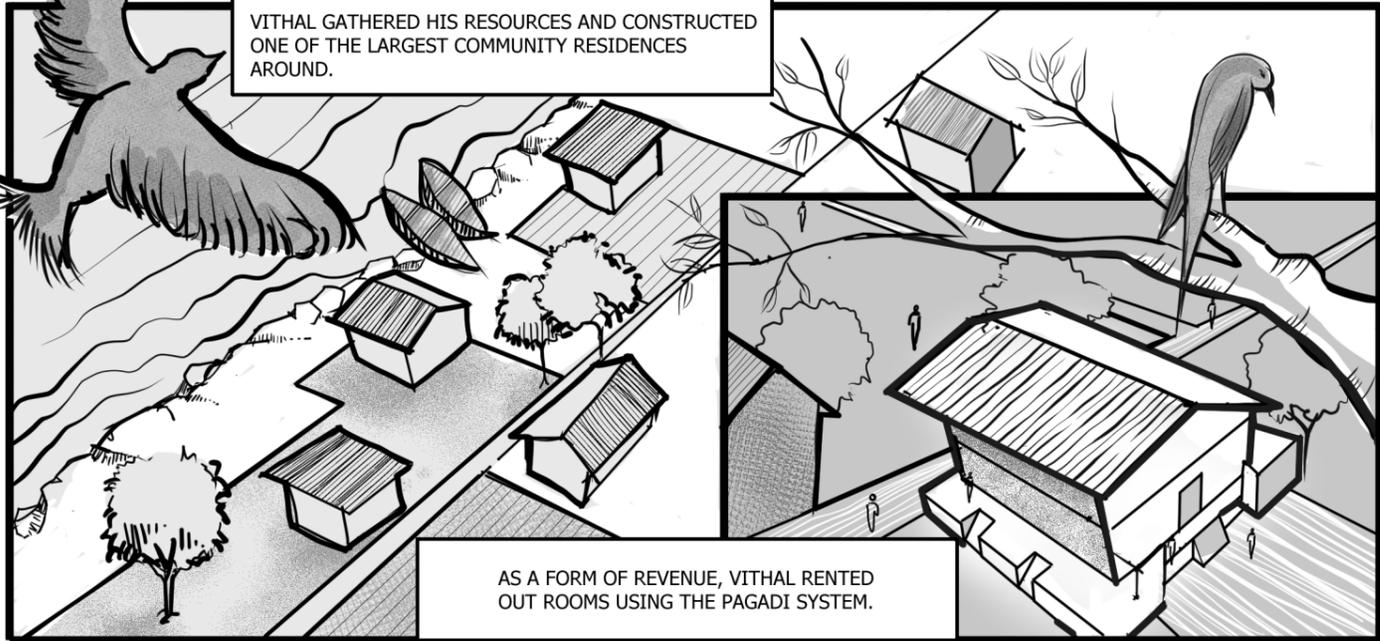
YES SURE!

LET ME USE MY LAND TO BUILD HOUSING. DHONDU ARE YOU UP FOR IT?

..... AND THE STORY OF VITHAL KOLI

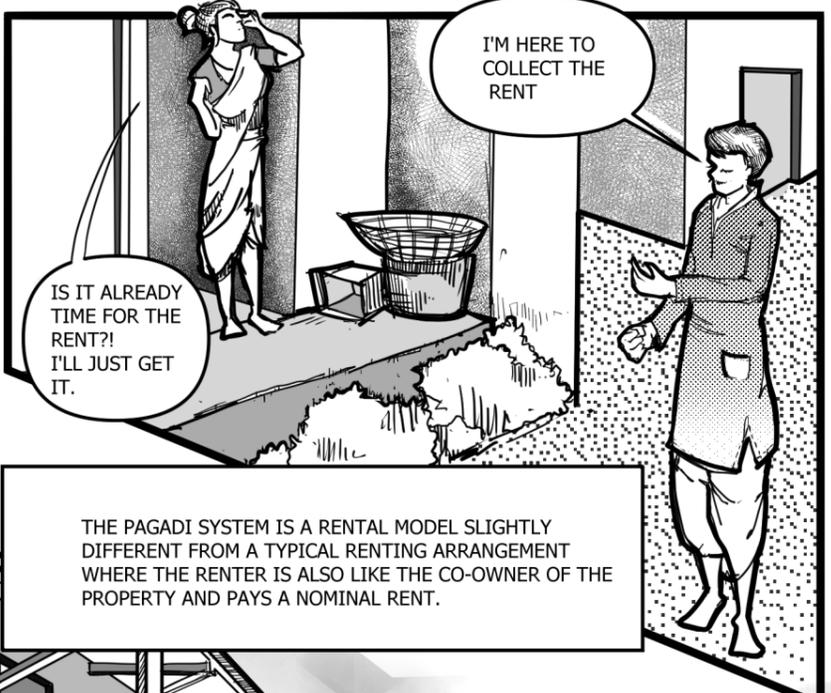


ACCORDING TO URBAN LEGEND, DHONDU WAS THE FIRST CONTRACTOR TO TAKE ON HOUSING PROJECTS IN DHARAVI.



VITHAL GATHERED HIS RESOURCES AND CONSTRUCTED ONE OF THE LARGEST COMMUNITY RESIDENCES AROUND.

AS A FORM OF REVENUE, VITHAL RENTED OUT ROOMS USING THE PAGADI SYSTEM.



I'M HERE TO COLLECT THE RENT

IS IT ALREADY TIME FOR THE RENT? I'LL JUST GET IT.

THE PAGADI SYSTEM IS A RENTAL MODEL SLIGHTLY DIFFERENT FROM A TYPICAL RENTING ARRANGEMENT WHERE THE RENTER IS ALSO LIKE THE CO-OWNER OF THE PROPERTY AND PAYS A NOMINAL RENT.



OH! WHAT AN IMPRESSIVE CATCH!

YAI TIME FOR A NAP

I'LL GET READY TO SELL IT AT THE FISH MARKET.



DHARAVI'S KOHLI COMMUNITY PRACTICES ESTUARINE FISHING

DHARAVI KOLIWADA 1920

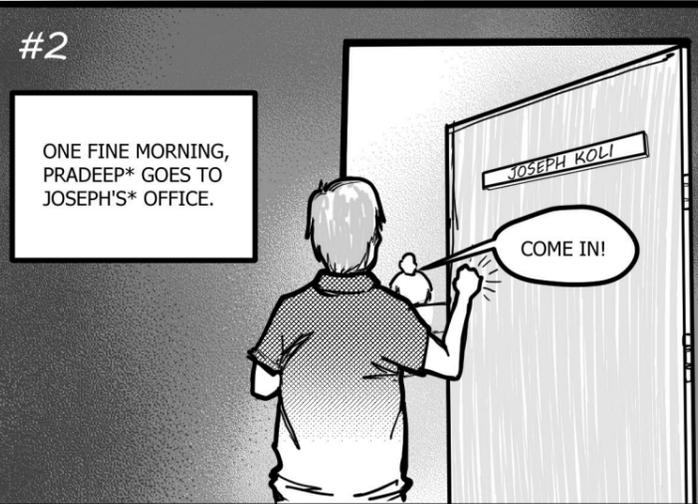
DHARAVI KOLIWADA 2020

DHARAVI KOLIWADA SET THE EXAMPLE FOR BUILDING HOMETOWN NEIGHBOURHOODS. THIS WAS LATER ADOPTED BY MIGRANT AND ARTISANAL COMMUNITIES THAT BEGAN TO CALL DHARAVI THEIR HOME.

THE MONSOONS WILL BE HERE...

THEY CREATE AND TEND TO FISHING PONDS AMIDST THE MANGROVES OF THE MITHI RIVER.

THE PONDS WILL HAVE TO BE DREDGED FOR FISHING



#2

ONE FINE MORNING, PRADEEP* GOES TO JOSEPH'S* OFFICE.

COME IN!



SO PRADEEP BHAI?

SOME CHAI?

GREAT!

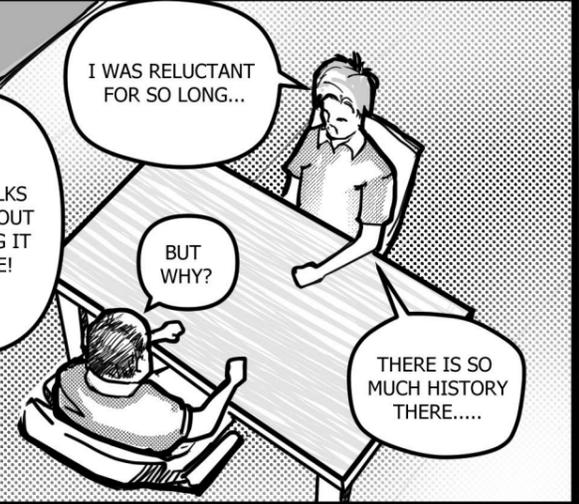


SO JOSEPH BHAI, I'VE FINALLY DECIDED TO DO IT...

IT'S TIME FOR VITHAL-BHASKAR CHAWL TO CHANGE.



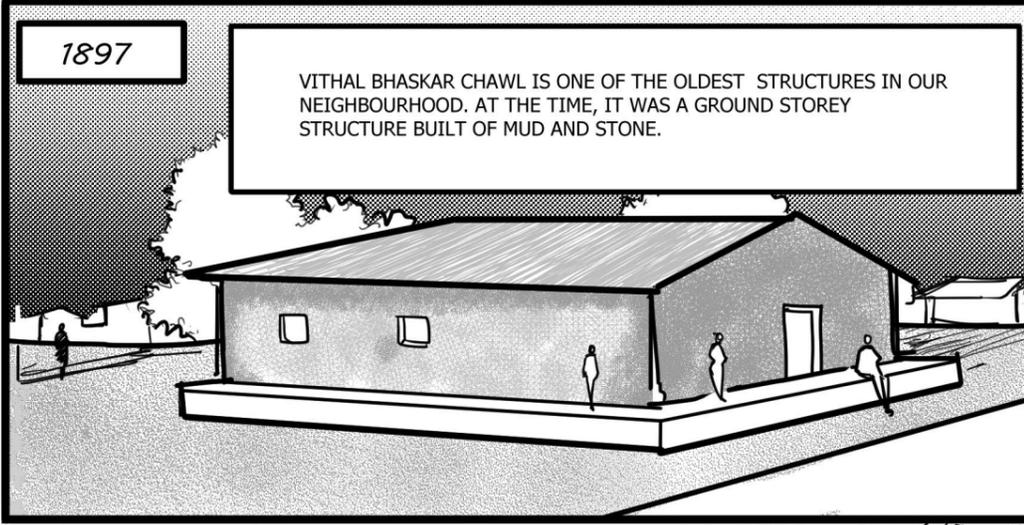
SO THE TALKS I HEARD ABOUT REBUILDING IT ARE TRUE!



I WAS RELUCTANT FOR SO LONG...

BUT WHY?

THERE IS SO MUCH HISTORY THERE....



1897

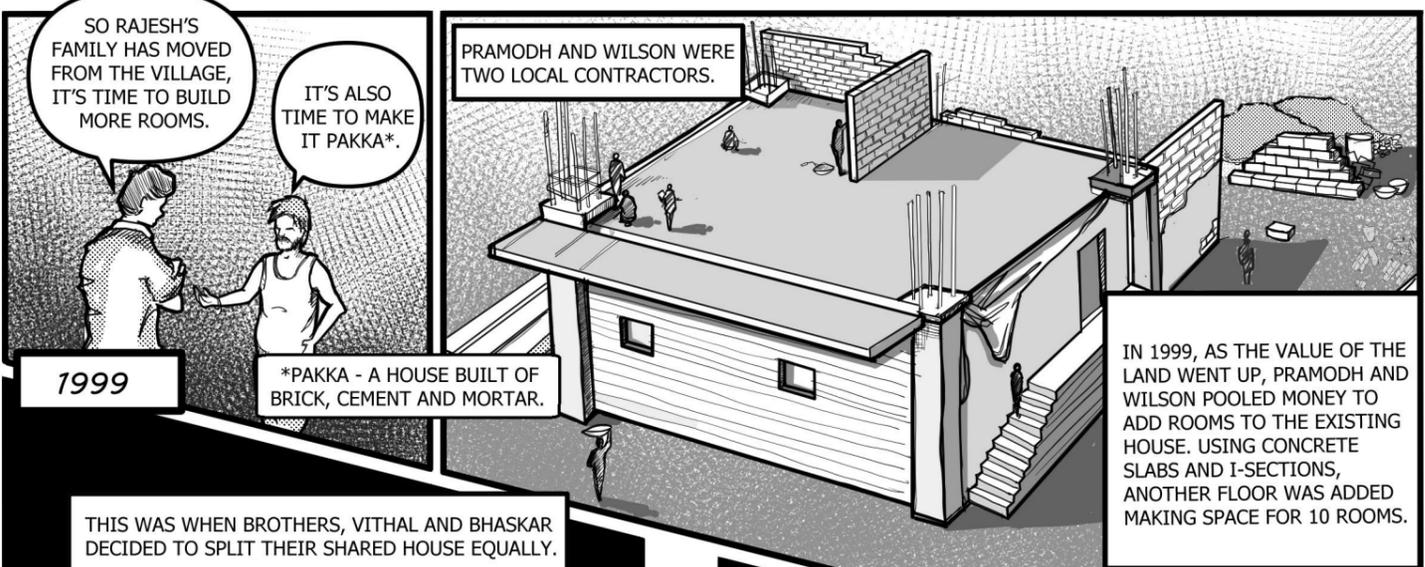
VITHAL BHASKAR CHAWL IS ONE OF THE OLDEST STRUCTURES IN OUR NEIGHBOURHOOD. AT THE TIME, IT WAS A GROUND STOREY STRUCTURE BUILT OF MUD AND STONE.

THERE WERE FEWER HOUSES, ONE COULD SEE AS FAR AS THE MAHIM BAY ON ONE SIDE AND ACROSS THE MITHI ON THE OTHER. ON SOME EVENINGS, WE WOULD GO ON THE ROOF AND WATCH MOVIES SCREENED IN THE OPEN AIR TALKIE.



1970

*PRADEEP KOHLI - RESIDENT OF VITHAL BHASKAR CHAWL (NAME HAS BEEN CHANGED TO MAINTAIN ANONYMITY)
*JOSEPH KOHLI - LOCAL CONTRACTOR



SO RAJESH'S FAMILY HAS MOVED FROM THE VILLAGE, IT'S TIME TO BUILD MORE ROOMS.

IT'S ALSO TIME TO MAKE IT PAKKA*.

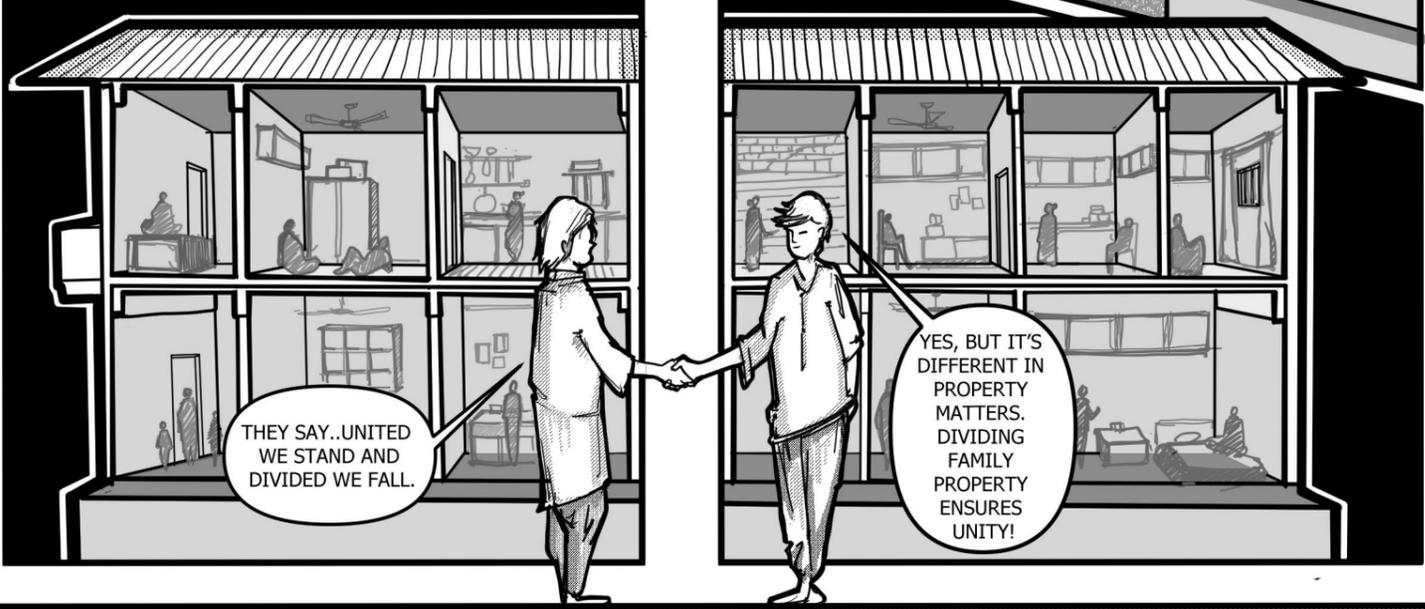
PRAMODH AND WILSON WERE TWO LOCAL CONTRACTORS.

1999

*PAKKA - A HOUSE BUILT OF BRICK, CEMENT AND MORTAR.

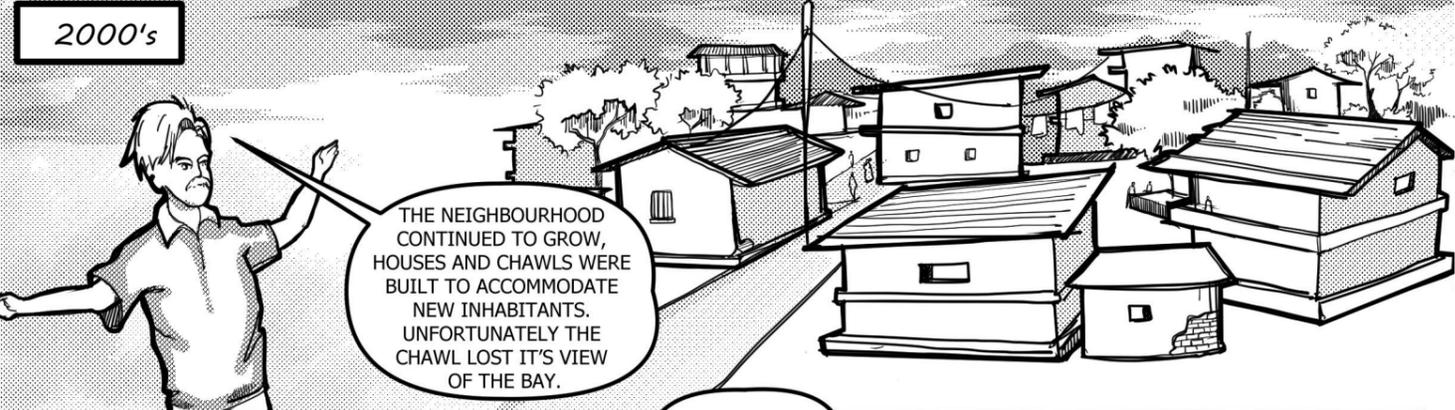
IN 1999, AS THE VALUE OF THE LAND WENT UP, PRAMODH AND WILSON POOLED MONEY TO ADD ROOMS TO THE EXISTING HOUSE. USING CONCRETE SLABS AND I-SECTIONS, ANOTHER FLOOR WAS ADDED MAKING SPACE FOR 10 ROOMS.

THIS WAS WHEN BROTHERS, VITHAL AND BHASKAR DECIDED TO SPLIT THEIR SHARED HOUSE EQUALLY.



THEY SAY..UNITED WE STAND AND DIVIDED WE FALL.

YES, BUT IT'S DIFFERENT IN PROPERTY MATTERS. DIVIDING FAMILY PROPERTY ENSURES UNITY!



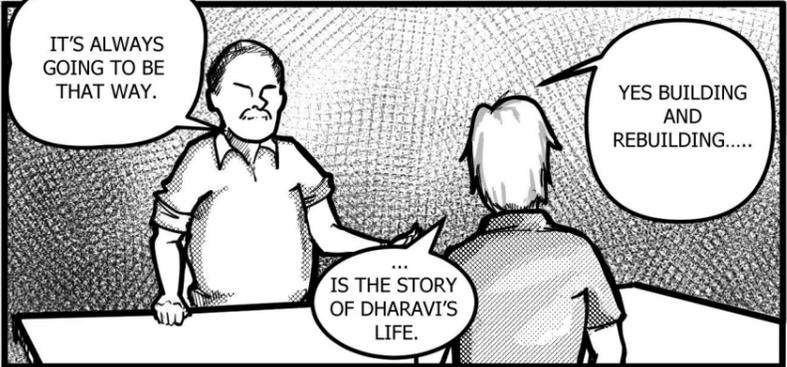
2000's

THE NEIGHBOURHOOD CONTINUED TO GROW, HOUSES AND CHAWLS WERE BUILT TO ACCOMMODATE NEW INHABITANTS. UNFORTUNATELY THE CHAWL LOST IT'S VIEW OF THE BAY.



2018

IT'S BEEN SO MANY YEARS. PEOPLE HAVE STARTED COMING TO ME WITH NEW PROBLEMS.



IT'S ALWAYS GOING TO BE THAT WAY.

YES BUILDING AND REBUILDING.....

... IS THE STORY OF DHARAVI'S LIFE.



THE NEXT DAY.....

OH, SORRY, HAD A LATE START.

HEY JOSEPH! BEEN WAITING FOR ALMOST 20 MIN!



NO WORRIES! LET'S GO AROUND.

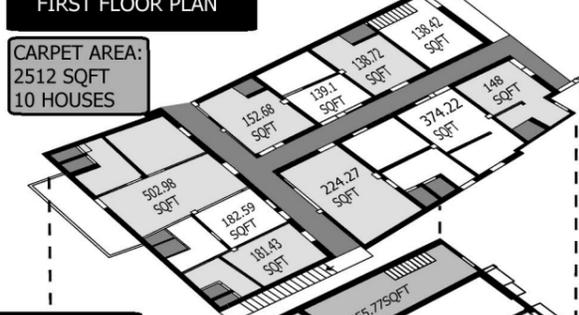


THIS PLACE HAS CHANGED A LOT, SINCE I WAS HERE LAST.

YES THIS PLACE.... IT KEEPS ON CHANGING.

FIRST FLOOR PLAN

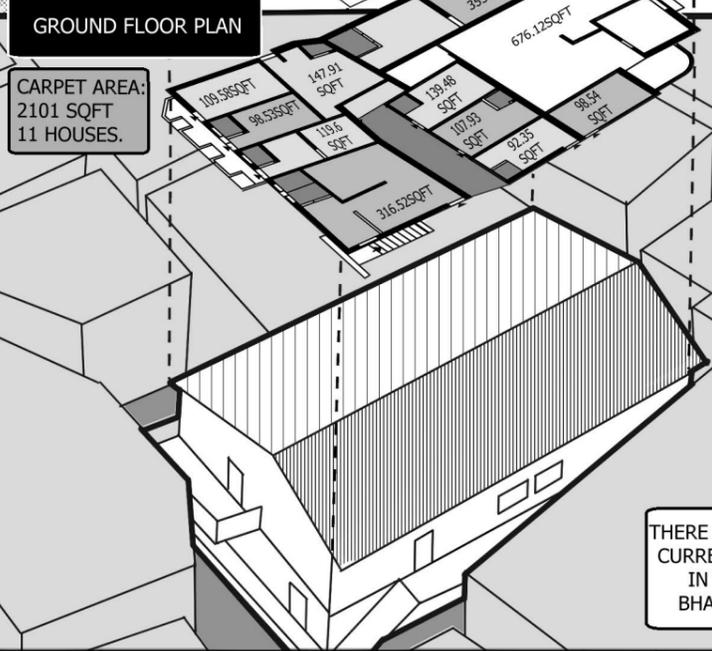
CARPET AREA: 2512 SQFT
10 HOUSES



THE GRADUAL DEVELOPMENT OF THE CHAWL MEANS THAT, THE FLOW OF SPACES COULD SOMETIMES BE BLOCKED AND SOME OF THE HOUSES LACK LIGHT AND VENTILATION.

GROUND FLOOR PLAN

CARPET AREA: 2101 SQFT
11 HOUSES.

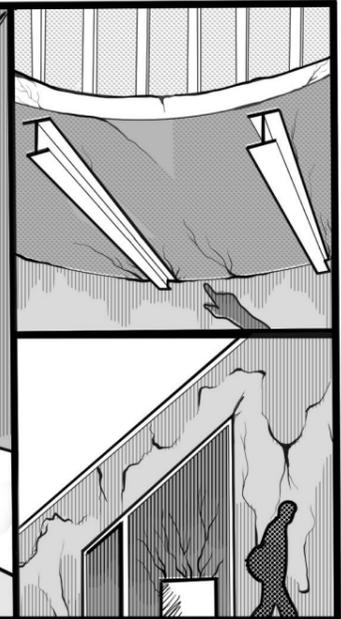


THERE ARE 20 FAMILIES CURRENTLY RESIDING IN THE VITHAL BHASKAR CHAWL.



IT'S BEEN 20 YEARS NOW AND TIME HAS TAKEN A TOLL ON OUR HOME.

YES, I CAN SEE THAT.



IT'S TIME TO TALK TO THE RESIDENTS...

AHH! LET'S OPEN THE PANDORA'S BOX!

PRADEEP GATHERS RESIDENTS TO DISCUSS THE NEED TO REDEVELOP THE CHAWL.

FRIENDS... MEET JOSEPH. SOME OF YOU MAY KNOW HIM FROM BEFORE.

ISN'T HE THE ONE WHO HELPED BUILD THE MANDAP?

YES! THAT'S HIM.

HE BUILT IT?

YES OUR MANDAP WAS BUILT ON AN AREA ONCE USED AS A GARBAGE DUMP. IT WAS JOSEPH WHO CLEARED IT AND CONVERTED IT. SEE HOW CLEAN IT HAS BEEN SINCE THEN...?

I'VE TOLD HIM ABOUT OUR PLANS.... I'VE SHOWN HIM AROUND THE CHAWL HE WANTS TO MEET ALL OF YOU...

HI FRIENDS... WAITING TO HEAR THE PROBLEMS YOU FACE LIVING HERE

THERE ARE SO MANY JOSEPH! WHERE DO WE BEGIN? THANKS TO ALL THE NEW BUILDINGS AROUND - LACK OF LIGHT AND VENTILATION ARE HUGE PROBLEMS NOW.

Not sufficient amount of light and ventilation in the chawl

DETERIORATING CONDITION OF THE CHAWL.....

THE TOILET SLABS HAVE DETERIORATED, DEVELOPING CRACKS EVERYWHERE. THERE IS SO MUCH LEAKAGE NOW.

THE STAIRCASE IS RICKETY. I'M SCARED TO WALK UP!.

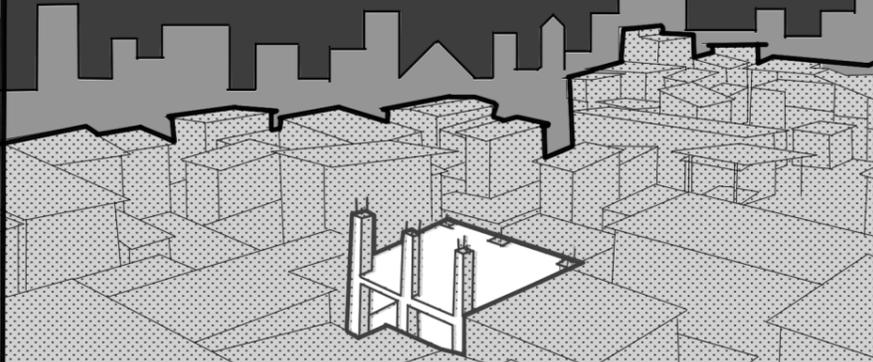
THE EXTERIOR OF OUR HOUSE HAS ALSO BEGUN SHOWING SIGNS OF CRACKS.

THE I SECTIONS HAVE BEGUN RUSTING, WHAT IF IT CAUSES SERIOUS DAMAGE?

JOSEPH FIRST STARTED DISCUSSIONS WITH THE RESIDENTS OF VITHAL BHASKAR IN 2018. AT THE TIME, NOT ALL THEM WERE CONVINCED OF THE NEED TO REDEVELOP THE CHAWL. HE SPENT ALMOST TWO YEARS TRYING TO EXPLAIN ITS ADVANTAGES. IT WAS ONLY IN 2020 DID THE TIDE OF OPINION TURN...

OK... I THINK IT'S TIME TO CALL THEM.





URBZ WORKING WITH CONTRACTORS.



ARTISANS WORKING WITH MODELS.

"THE DESIGN COMES AS WE BUILD" PUTS THE SPOTLIGHT ON SMALL BUILDING CONTRACTORS IN MUMBAI WHO ARE COLLECTIVELY RESPONSIBLE FOR CONSTRUCTION OF MANY SMALL HOMES, WHICH ACCOMMODATE A MAJORITY OF THE CITY'S POPULATION. URBZ INVITED LOCAL CONTACTORS FROM DHARAVI WITH A VAST EXPERIENCE IN CONSTRUCTION AND ASKED THEM TO DESIGN THE BEST POSSIBLE HOUSE THEY COULD IMAGINE. THESE DESIGNS WERE BUILT INTO PHYSICAL MODELS BY ARTISANS.



HEY JOSEPH GOT ANOTHER JOB FOR US?

urbz

KNOCK KNOCK

ARCHITECTS SAMIDHA AND JAI ARE PART OF THE URBZ MUMBAI TEAM.

I DO! THE RESIDENTS HAVE FINALLY AGREED TO REDEVELOP IT.

YES, BUT THEY DO HAVE SOME REQUIREMENTS.

..AND, WHAT ARE THEY?

KNOCK KNOCK

OH PRINCE IS HERE!

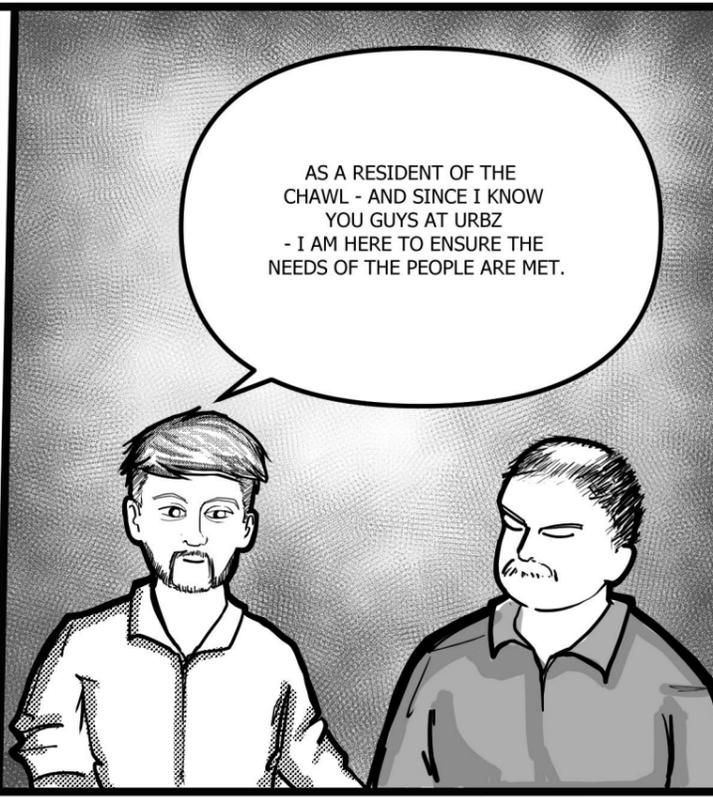
OH THAT'S AMAZING!



THANKS FOR COMING PRINCE.

I WAS JUST TELLING THEM ABOUT YOUR REQUIREMENTS.

PRINCE, A RESIDENT OF VITHAL BHASKAR AND A LAWYER BY PROFESSION, ACTED AS A MEDIATOR BETWEEN THE RESIDENTS OF THE CHAWL AND URBZ.



AS A RESIDENT OF THE CHAWL - AND SINCE I KNOW YOU GUYS AT URBZ - I AM HERE TO ENSURE THE NEEDS OF THE PEOPLE ARE MET.



THEY WANT THE AREA OF THEIR HOMES TO REMAIN THE SAME.

THE REDEVELOPED HOUSE SHOULD BE IN THE SAME LOCATION - WITH THE SAME NEIGHBOURS.

HEY, SO HAS URBZ CONTACTED YOU FOR AN INTERVIEW?

YES THEY HAVE!

DITTO FOR THE ENTRANCES OF THEIR HOUSES. IF SOMEONE HAS AN ENTRANCE FROM THE STREET IT SHOULD REMAIN THERE.

A TEAM FROM URBZ, STARTED THE PHYSICAL DOCUMENTATION OF THE CHAWL AFTER WHICH MEASURED DRAWINGS WERE MADE.

CAN YOU MOVE THE TAPE FURTHER BACK TO THE END OF THE WALL?

WHO ALL DO YOU LIVE WITH MAUSHI?

MY HUSBAND FREQUENTLY TRAVELS FOR WORK...

SO IT'S MAINLY JUST ME AND THE KIDS IN THE HOUSE.

WE'VE BEEN LIVING HERE FOR THE LAST 60 YEARS.

THIS IS OUR DAUGHTER ...HER OLDER SISTER HAS MOVED OUT AND STARTED HER OWN FAMILY.

SINCE WHEN HAS YOUR FAMILY BEEN LIVING HERE?

THE TEAM INTERACTED WITH THE RESIDENTS AND COLLECTED INFORMATION ON THEIR FAMILIES AND THEIR OCCUPATIONS.

FINALLY! DONE WITH THE DOCUMENTATION.

IS THERE ANYTHING ELSE YOU WANT ME TO TALK TO THE RESIDENTS ABOUT?

THIS IS GOOD ENOUGH FOR NOW. JOSEPH BHAI.

LET'S START DESIGNING!

#5

A GRID REFERS TO A COLUMN-GRID USED BY ARCHITECTS WHILE BUILDING FRAMED STRUCTURES.

I'VE TRIED TO FIT THIS PLAN IN A GRID JAI, IT'S NOT WORKING OUT!

YES, THE GROUND FLOOR PLAN IS ORGANICALLY BUILT,

SO IT DOESN'T MATCH THE GRID ON THE FIRST FLOOR.

THE RESIDENTS WANT THE SAME SIZED HOME AND WANT TO LIVE NEXT TO THE SAME NEIGHBOURS... IT'S GONNA BE A TASK!

IF THE GRID SYSTEM IS NOT WORKING ... LET'S TRY DOING IT THE OTHER WAY ROUND....

LET'S PLACE THE HOUSES IN THEIR LOCATION FIRST AND THEN FIGURE OUT THE PLAN.

THE URBZ TEAM WORKS ON THE PLANS AND TRIES TO FIT AS MANY HOUSES AS POSSIBLE.

SERVICE DUCTS

WE CAN LIMIT ALL THE SERVICES TO THE EXTERNAL WALLS OF THE BUILDING.. TO SAVE SPACE INSIDE.

LET'S ALSO GIVE COMMON DUCTS TO 2 HOUSES TO MAKE THE SYSTEM MORE EFFICIENT.

TOILET

EXTERNAL WALL

TOILET

HOUSE 1

HOUSE 2

SHARED DUCTS



WHAT ABOUT THE COMMON WALL?

WE CAN INCREASE THE SIZE OF THE DUCTS, MAKING THEM VENTILATION TUNNELS.

VENTILATION TUNNELS ARE USED TO FACILITATE THE CIRCULATION OF AIR IN THE STRUCTURE.

MODEL SHOWING THE DUCTS AS VENTILATION TUNNELS.



WE CAN USE A CHOWK TO CREATE STACK EFFECT ALLOWING CROSS VENTILATION IN THE CHAWL

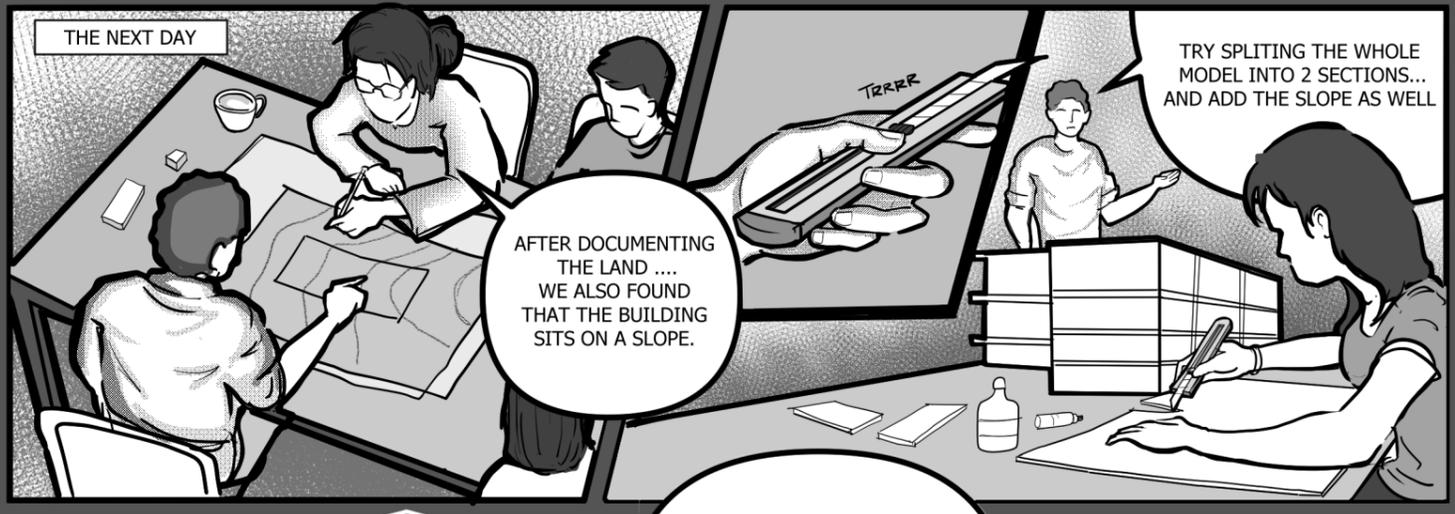
STACK EFFECT IS THE MOVEMENT OF AIR INTO AND OUT OF BUILDINGS, CHIMNEYS, OR OTHER CONTAINERS, RESULTING FROM AIR BUOYANCY.



YES BY DOING SO WE WILL BE ABLE TO BRING MORE LIGHT AND VENTILATIO INTO THE BUIDLING

YES THAT'S A GOOD IDEA!

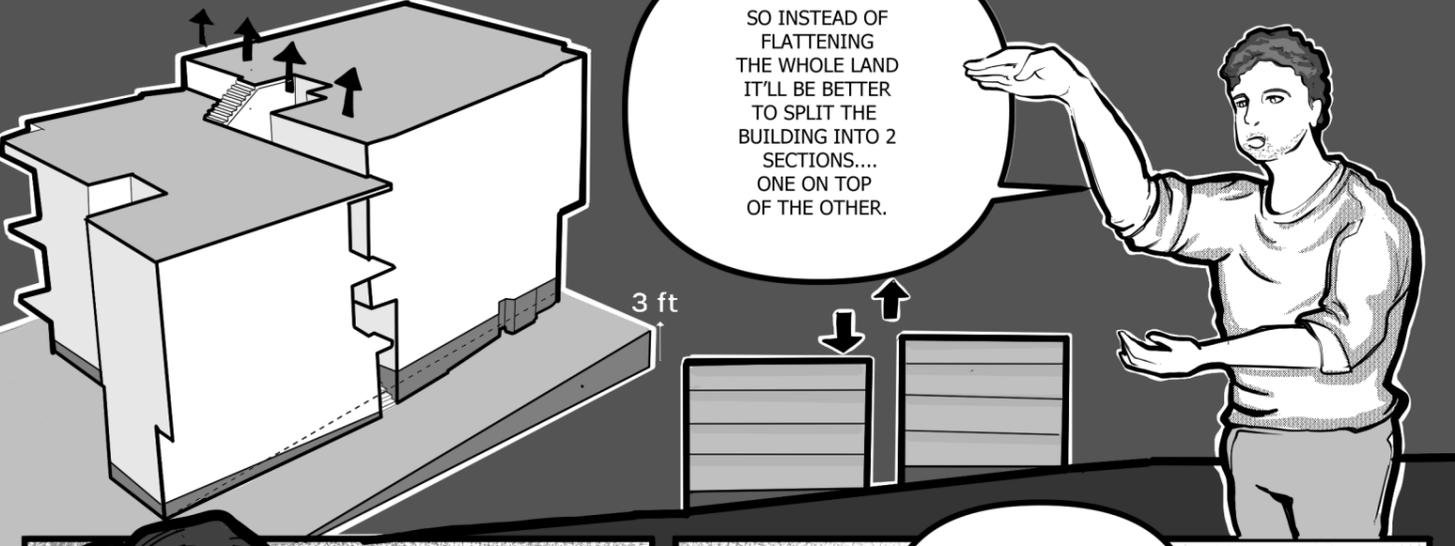
EXACTLY! SINCE THERE IS NO SPACE IN BETWEEN THE BUILDINGS.... AN OPENING FROM THE TOP MIGHT BE THE BEST WAY TO GO ABOUT.



THE NEXT DAY

AFTER DOCUMENTING THE LAND WE ALSO FOUND THAT THE BUILDING SITS ON A SLOPE.

TRY SPLITTING THE WHOLE MODEL INTO 2 SECTIONS... AND ADD THE SLOPE AS WELL



SO INSTEAD OF FLATTENING THE WHOLE LAND IT'LL BE BETTER TO SPLIT THE BUILDING INTO 2 SECTIONS... ONE ON TOP OF THE OTHER.



THERE IS ONE MORE HOUSE WHICH WE ARE NOT ABLE TO FIT IN THE GROUND FLOOR.



WE CAN TRY SHIFTING THAT HOUSE TO THE NEW FLOORS BEING BUILT ON TOP...WHAT DO YOU THINK JOSEPH?



IN MY OPINION THEY ARE NOT GONNA BE HAPPY ABOUT THAT.... WE SHOULD TRY TO KEEP THEM IN THE SAME LOCATION..

LET'S ASK HIM IN OUR NEXT MEETING.

WE COULD GIVE THEM SOME INCENTIVE TO MOVE TO THE TOP FLOOR.... LIKE GIVING THEM MORE AREA IN THE NEW HOUSE.

URBZ CONDUCTED A WORKSHOP WITH THE RESIDENTS OF VITHAL BHASKAR TO GET AN OPINION ON THE DESIGN.

ARE ALL THE RESIDENTS HERE?

YES JOSEPH BHAJI LET'S BEGIN.

THE URBZ TEAM EXPLAINS THE DESIGN AND THE VARIOUS ELEMENTS ADDED TO SOLVE THE PROBLEMS.

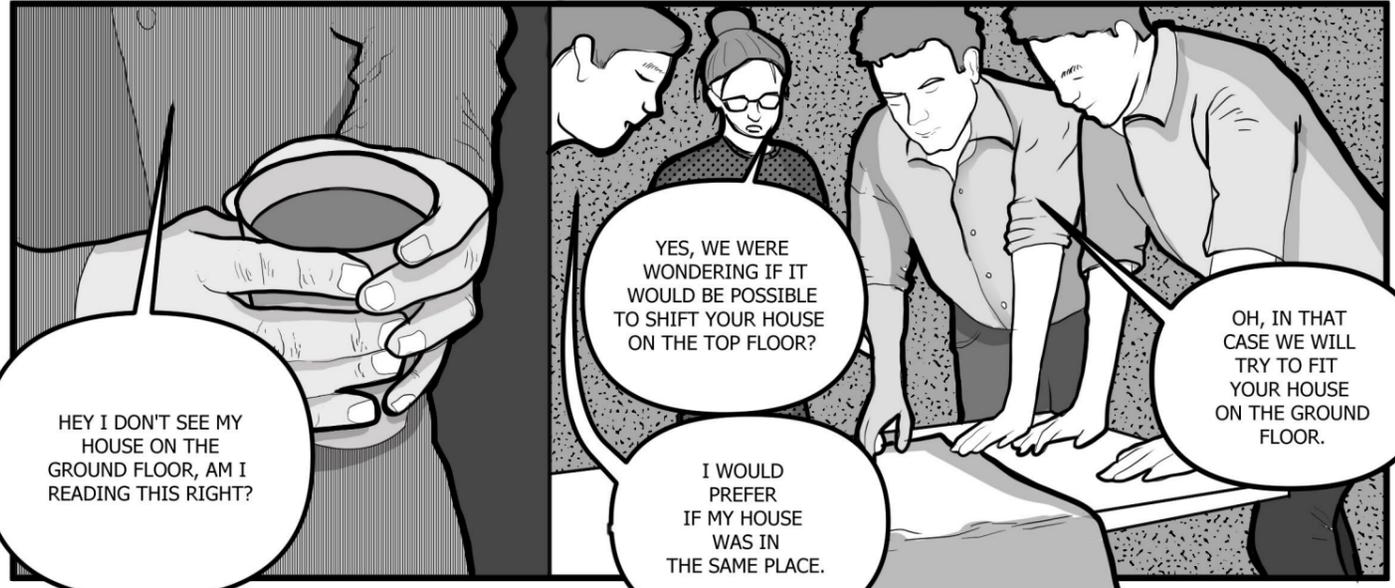
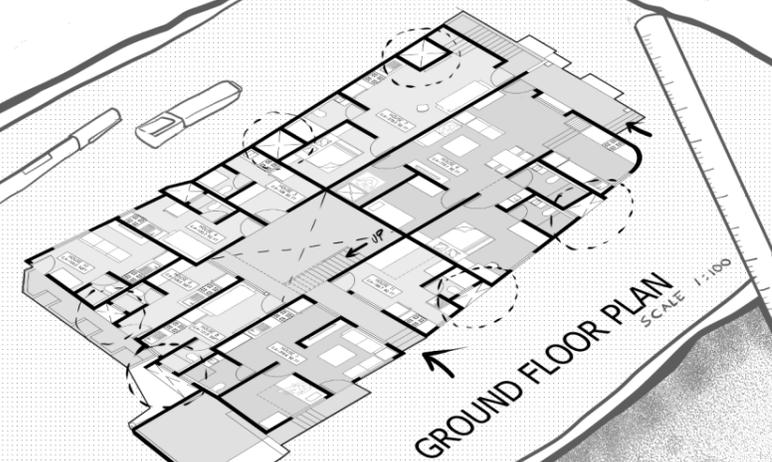
THE RESIDENTS ARE EXCITED TO SEE THE NEW DESIGN AND CURIOUS TO KNOW WHERE THEIR HOUSES ARE IN THE NEW DESIGN.

GOOD THING YOU BROUGHT URBZ ON BOARD JOSEPH BHAJI...

YES WE WORKED HARD TO INCLUDE ALL YOUR NEEDS AND SUGGESTIONS!

I'M HAPPY THAT WE'RE STILL NEIGHBOURS.

YES, AND I FEEL THE CHOKW WILL BE A GOOD GATHERING PLACE.

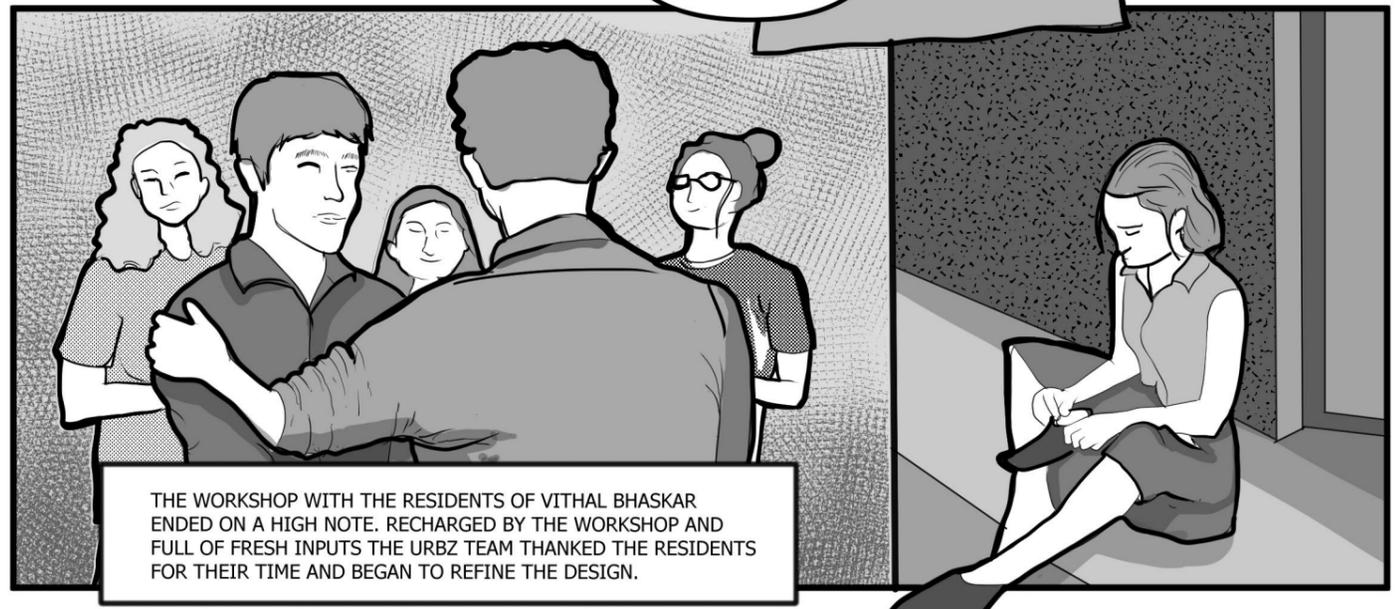


HEY I DON'T SEE MY HOUSE ON THE GROUND FLOOR, AM I READING THIS RIGHT?

YES, WE WERE WONDERING IF IT WOULD BE POSSIBLE TO SHIFT YOUR HOUSE ON THE TOP FLOOR?

I WOULD PREFER IF MY HOUSE WAS IN THE SAME PLACE.

OH, IN THAT CASE WE WILL TRY TO FIT YOUR HOUSE ON THE GROUND FLOOR.



THE WORKSHOP WITH THE RESIDENTS OF VITHAL BHASKAR ENDED ON A HIGH NOTE. RECHARGED BY THE WORKSHOP AND FULL OF FRESH INPUTS THE URBZ TEAM THANKED THE RESIDENTS FOR THEIR TIME AND BEGAN TO REFINE THE DESIGN.

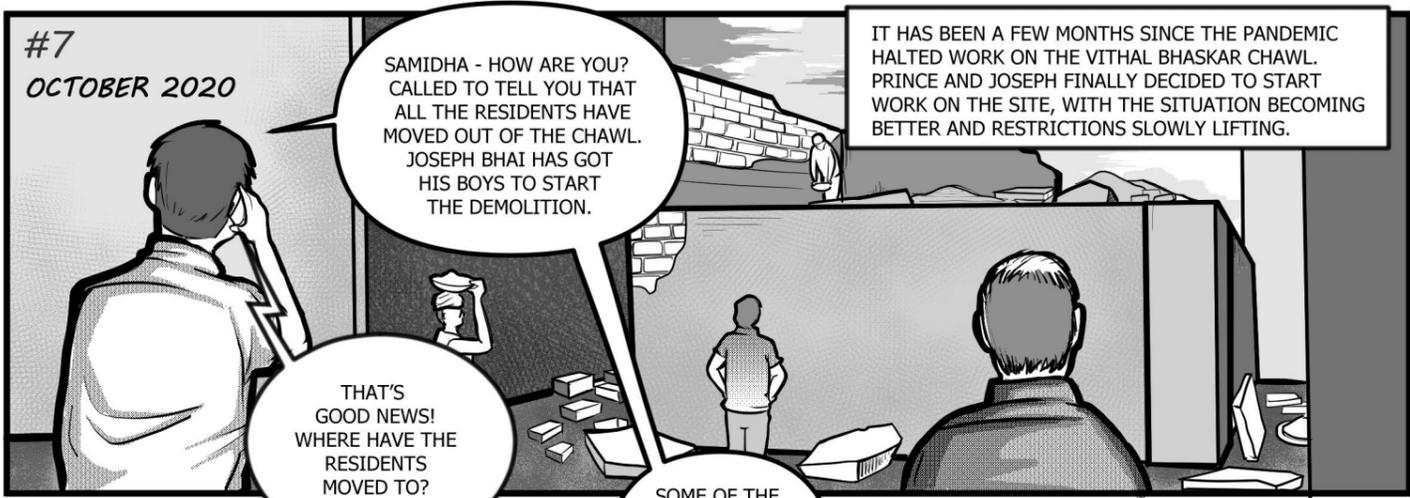
A FEW WEEKS LATER



NATIONWIDE LOCKDOWN ANNOUNCED

21 day lockdown

OH NO! THIS IS SERIOUS! IT WILL ALSO AFFECT OUR WORK. THE VITHAL BHASKAR PROJECT MAY COME TO A HALT..

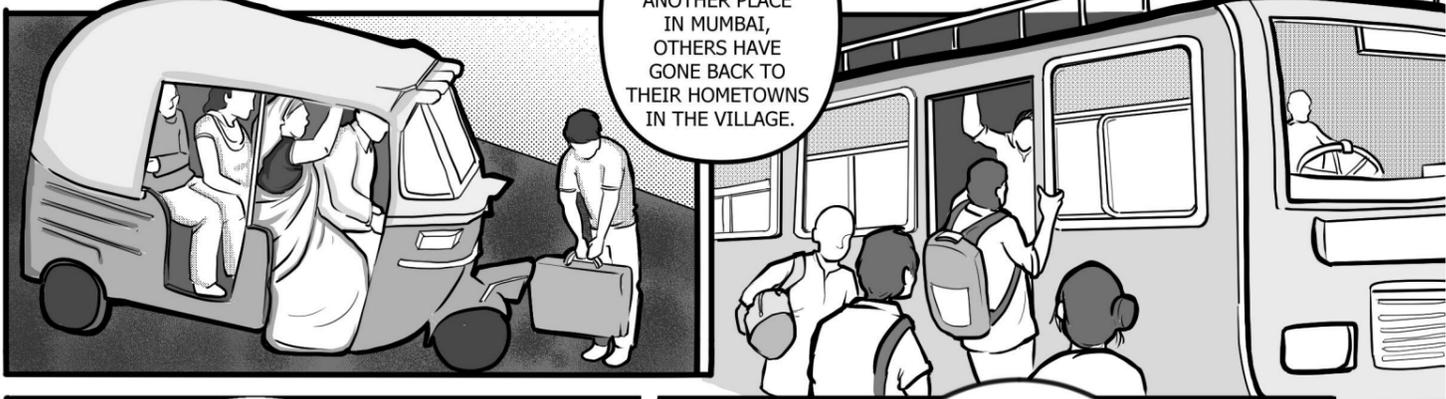


SAMIDHA - HOW ARE YOU? CALLED TO TELL YOU THAT ALL THE RESIDENTS HAVE MOVED OUT OF THE CHAWL. JOSEPH BHAJI HAS GOT HIS BOYS TO START THE DEMOLITION.

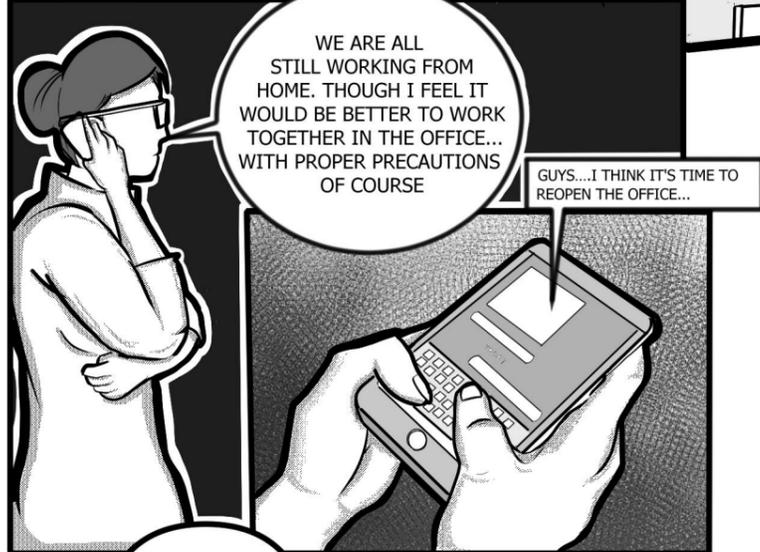
THAT'S GOOD NEWS! WHERE HAVE THE RESIDENTS MOVED TO?

IT HAS BEEN A FEW MONTHS SINCE THE PANDEMIC HALTED WORK ON THE VITHAL BHASKAR CHAWL. PRINCE AND JOSEPH FINALLY DECIDED TO START WORK ON THE SITE, WITH THE SITUATION BECOMING BETTER AND RESTRICTIONS SLOWLY LIFTING.

SOME OF THE FAMILIES HAVE SHIFTED TO ANOTHER PLACE IN MUMBAI, OTHERS HAVE GONE BACK TO THEIR HOMETOWNS IN THE VILLAGE.



WHAT IS THE SITUATION AT URBZ?



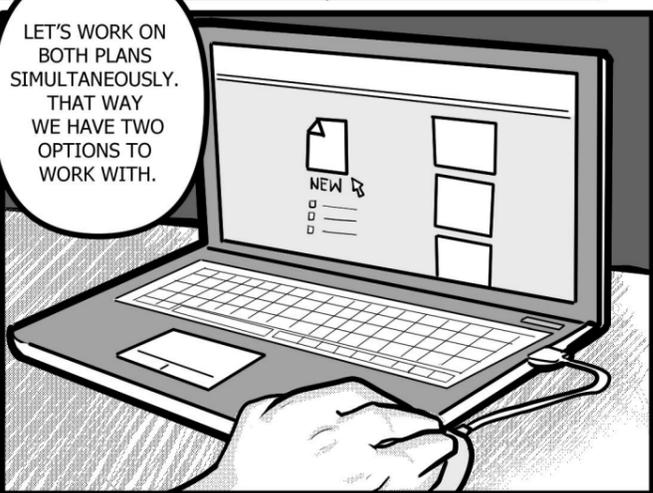
WE ARE ALL STILL WORKING FROM HOME. THOUGH I FEEL IT WOULD BE BETTER TO WORK TOGETHER IN THE OFFICE... WITH PROPER PRECAUTIONS OF COURSE

GUYS... I THINK IT'S TIME TO REOPEN THE OFFICE...



I FEEL LIKE WE NEED A FRESH START ON THE PLAN... WHAT DO YOU THINK?

MAYBE WE SHOULD KEEP WORKING ON THE OLDER PLAN... WE ARE ALMOST DONE WITH IT... JUST NEED TO WORK OUT THE AREAS ON THE GROUND FLOOR



LET'S WORK ON BOTH PLANS SIMULTANEOUSLY. THAT WAY WE HAVE TWO OPTIONS TO WORK WITH.



SAMIDHA, JAI AND PARTHA PUT THEIR MINDS TOGETHER TO RESOLVE THE PLAN.



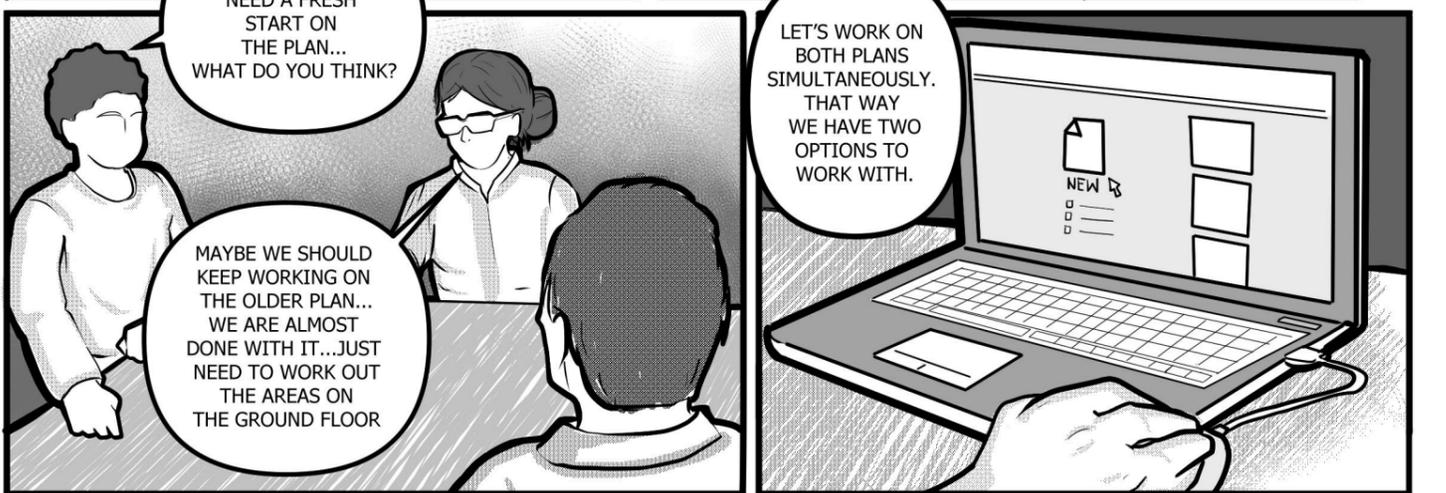
WHAT IF WE PUT THE STAIRCASE ON THE EXTERNAL FACADE?

HMMM.. THAT WOULD BE A GOOD SOLUTION TO SAVE SPACE ON THE INSIDE.



BY CALCULATING EVERY INCH, SAMIDHA CONTINUES TO WORK ON THE OLDER PLAN TRYING TO ADD ANOTHER ROOM TO THE GROUND FLOOR.

EUREKA! I HAVE FINALLY FOUND SPACE FOR THE EXTRA ROOM!



PLAN LOOKS GOOD TO GO! LET'S START CONSTRUCTING?

HMM.. WE DO HAVE ENOUGH TO GO WITH.

YES WE CAN START SETTING OUT THE COLUMNS. THE DETAILS OF THE DESIGN WILL COME AS WE BUILD...

THE WORK ON VITHAL BHASKAR BEGAN IN FULL SWING, ONCE THE DEMOLITION OF THE OLD CHAWL WAS COMPLETED AND THE RUBBLE CLEARED

DON'T DISCARD IT..... WE NEED TO USE THE RUBBLE LATER. PILE IT UP.

HOW IS THE WORK COMING ALONG RAKESH BHAI?

GOOD GOOD... WE ARE CLEARING UP NOW.



THEN A LINE DORI (STRING) IS ATTACHED TO THEM WHICH HELPS IN LOCATING THE POSITION OF THE COLUMNS ON SITE. THE INTERSECTION OF TWO OF THESE DORIS GIVES THE LOCATION OF THE COLUMN.

HMMMM... THIS LINE DORI IS STRAIGHT



WOODEN POSTS CARRYING A WOODEN RING BEAM IS USED TO MAINTAIN A LEVEL OF REFERENCE.

THE WHOLE SITE WAS ENCLOSED IN A TARPULIN SHEET AND BAMBOO TO AVOID DAMAGE TO THE NEIGHBOURING HOUSES.

AFTER THE COLUMN POSITIONS ARE MARKED, THE AREA IS EXCAVATED IN ORDER TO LAY THE FOUNDATION - WHICH SUPPORTS THE LOAD OF THE ENTIRE BUILDING.

WATER KEEPS FILLING IN AS I DIG!

DHARAVI USED TO BE A MARSH, THIS MEANS THAT GROUNDWATER LEVELS ARE REACHED QUICKLY. THE WATER NEEDS TO BE PUMPED OUT IN A PROCESS CALLED DEWATERING.



THE GARBAGE WAS CLEARED AND THE RUBBLE PILED UP FOR FUTURE USE

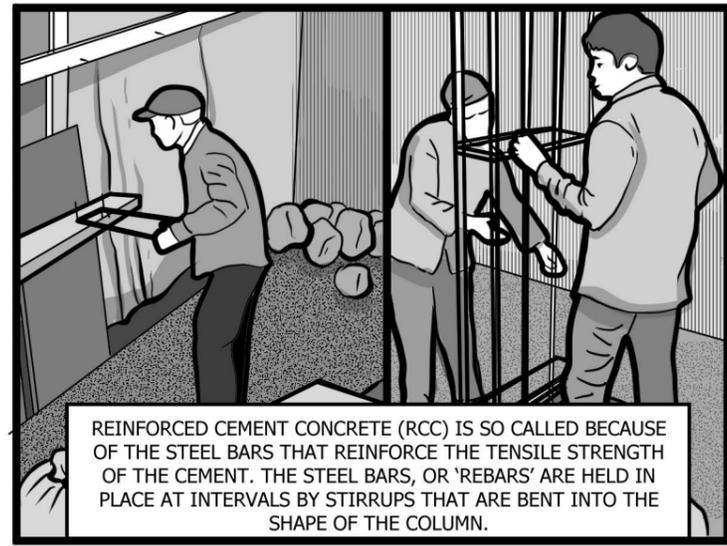
I'LL MAKE THE BOYS START WITH THE LINE DORI

SOUND'S GOOD!



SHALL WE BEGIN?

LET'S START BY MARKING THE COLUMNS FOR EXCAVATION.



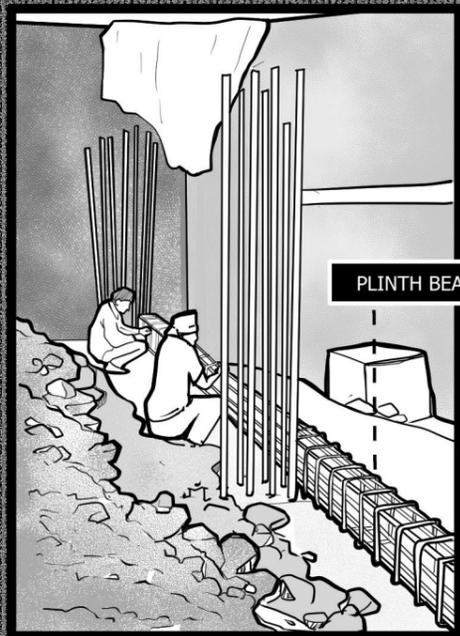
REINFORCED CEMENT CONCRETE (RCC) IS SO CALLED BECAUSE OF THE STEEL BARS THAT REINFORCE THE TENSILE STRENGTH OF THE CEMENT. THE STEEL BARS, OR 'REBARS' ARE HELD IN PLACE AT INTERVALS BY STIRRUPS THAT ARE BENT INTO THE SHAPE OF THE COLUMN.



THE CASTING OF THE FIRST COLUMN IS ALSO A CEREMONIAL INAUGURATION OF THE CONSTRUCTION SITE.

NOW THAT THE FIRST COLUMN HAS BEEN CAST WITH NO TROUBLE, THE REST OF THE CONSTRUCTION SHOULD GO SMOOTHLY AND SAFELY

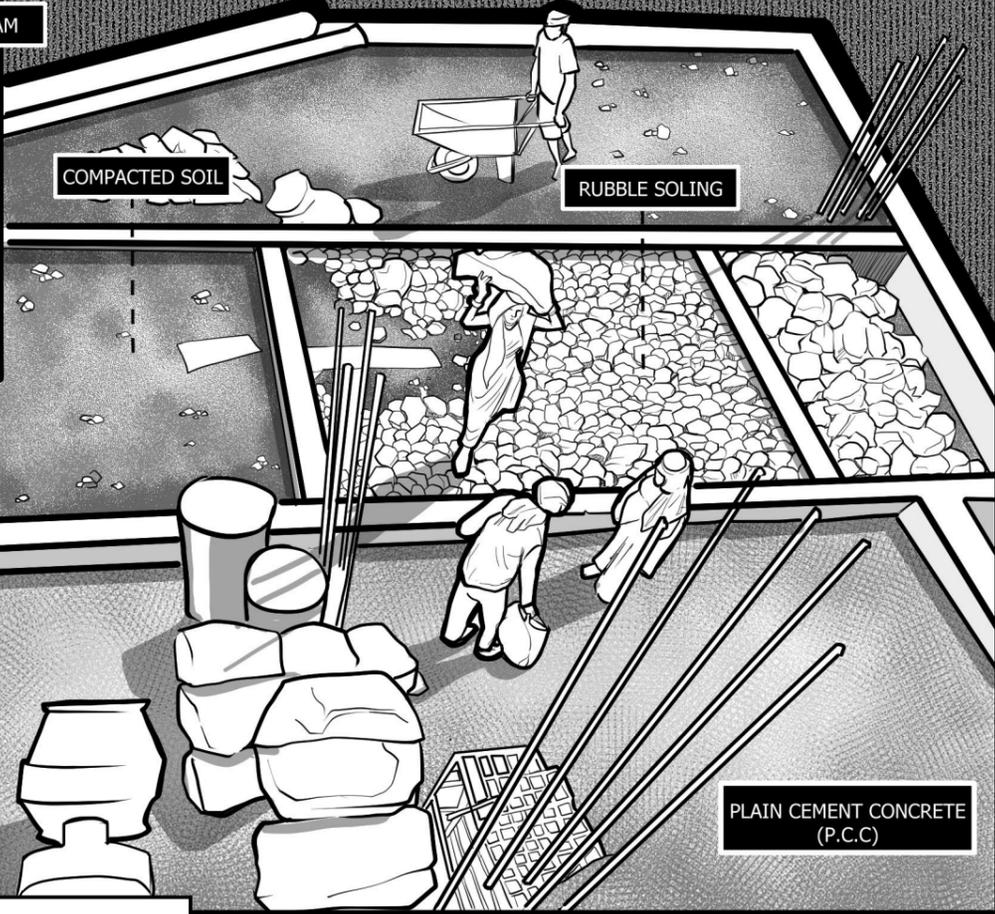
WE WILL DO OUR BEST FOR SURE!



PLINTH BEAM

THE PLINTH IS A PLATFORM WHICH RAISES THE FLOOR OF THE BUILDING OFF GROUND LEVEL. MAKING THE PLINTH BEAM IS THE NEXT MAJOR STEP OF THE CONSTRUCTION PROCESS. IT IS A HORIZONTAL MEMBER THAT TIES THE COLUMNS A FEW FEET ABOVE GROUND LEVEL. IT'S MAIN FUNCTION IS TO EVENLY DISTRIBUTE THE LOAD OF THE COLUMNS TO THE FOUNDATION.

NEXT, THE AREA ENCLOSED BY THE PLINTH BEAM IS BACKFILLED WITH SOIL FROM THE EXCAVATION BEFORE BEING COMPACTED. A LAYER OF RUBBLE SOLING (HAND PACKING RUBBLE STONES ONE ADJACENT TO ANOTHER) IS DONE AND THEN COVERED WITH PLAIN CEMENT CONCRETE (P.C.C). THIS FORMS THE BASE OF THE FLOOR.



COMPACTED SOIL

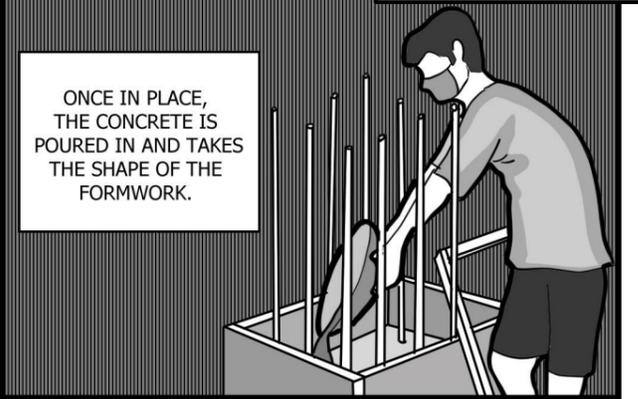
RUBBLE SOLING

PLAIN CEMENT CONCRETE (P.C.C)

TO CAST COLUMNS, YOU FIRST NEED TO SET UP THE FORMWORK AROUND THE STEEL REINFORCEMENTS.



THE FORMWORK IS USUALLY MADE OF PLYWOOD, AND IS GREASED BEFORE USE TO PREVENT THE CONCRETE FROM STICKING TO IT. THE FORMWORK IS TAKEN OFF ONCE THE CONCRETE SETS AND CAN BE REUSED.

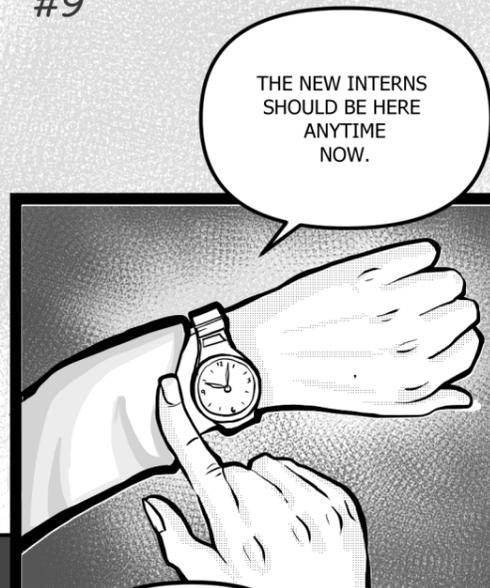


ONCE IN PLACE, THE CONCRETE IS POURED IN AND TAKES THE SHAPE OF THE FORMWORK.



GREAT GOING, IF WE PROCEED AT THIS PACE WE WILL BE ABLE TO FINISH IT EARLIER THAN EXPECTED.

YES, LET'S AIM TO BEGIN WITH THE 1ST FLOOR NEXT WEEK!



THE NEW INTERNS SHOULD BE HERE ANYTIME NOW.



HI GUYS, WELCOME TO URBZ!

THANKS FOR JOINING THIS MEET.

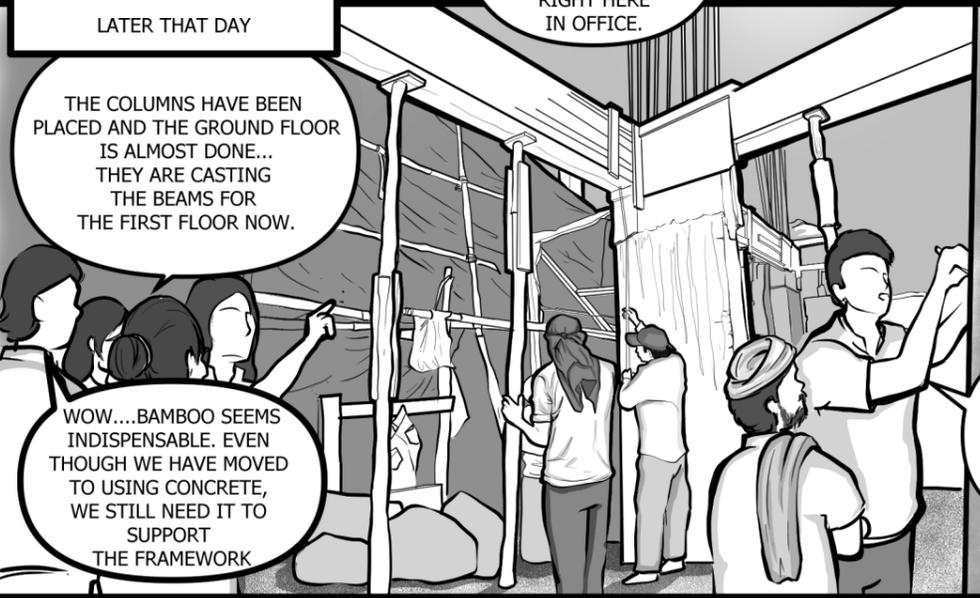
GOOD TO SEE SO MANY NEW FACES.



YOU GUYS CAN START BY READING UP ABOUT OUR WORK ON URBZ.NET OR GOING THROUGH REPORTS AND OTHER BOOKS RIGHT HERE IN OFFICE.



HEY IT'S TIME TO HEAD OUT TO OUR SITE.

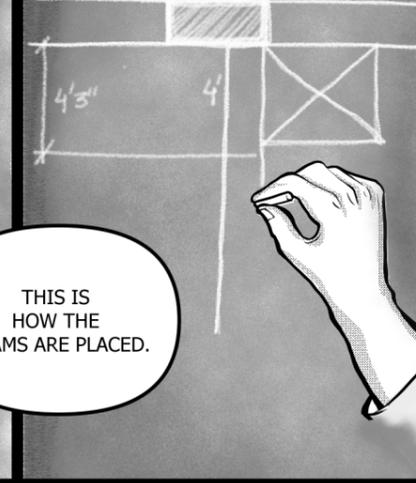


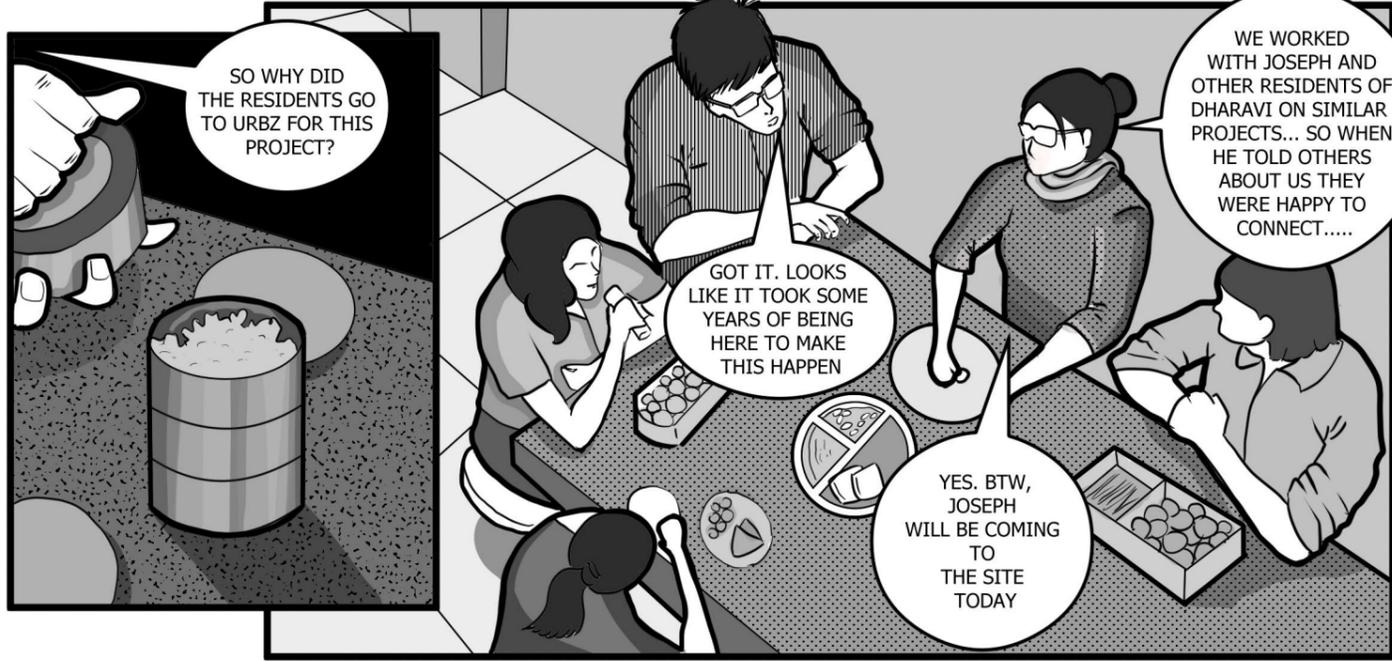
LATER THAT DAY

THE COLUMNS HAVE BEEN PLACED AND THE GROUND FLOOR IS ALMOST DONE... THEY ARE CASTING THE BEAMS FOR THE FIRST FLOOR NOW.

WOW....BAMBOO SEEMS INDISPENSABLE. EVEN THOUGH WE HAVE MOVED TO USING CONCRETE, WE STILL NEED IT TO SUPPORT THE FRAMEWORK

THIS IS HOW THE BEAMS ARE PLACED.





SO WHY DID THE RESIDENTS GO TO URBZ FOR THIS PROJECT?

GOT IT. LOOKS LIKE IT TOOK SOME YEARS OF BEING HERE TO MAKE THIS HAPPEN

WE WORKED WITH JOSEPH AND OTHER RESIDENTS OF DHARAVI ON SIMILAR PROJECTS... SO WHEN HE TOLD OTHERS ABOUT US THEY WERE HAPPY TO CONNECT.....

YES. BTW, JOSEPH WILL BE COMING TO THE SITE TODAY



IF EVERYONE IS DONE WITH LUNCH, LET'S GO BACK TO THE SITE?

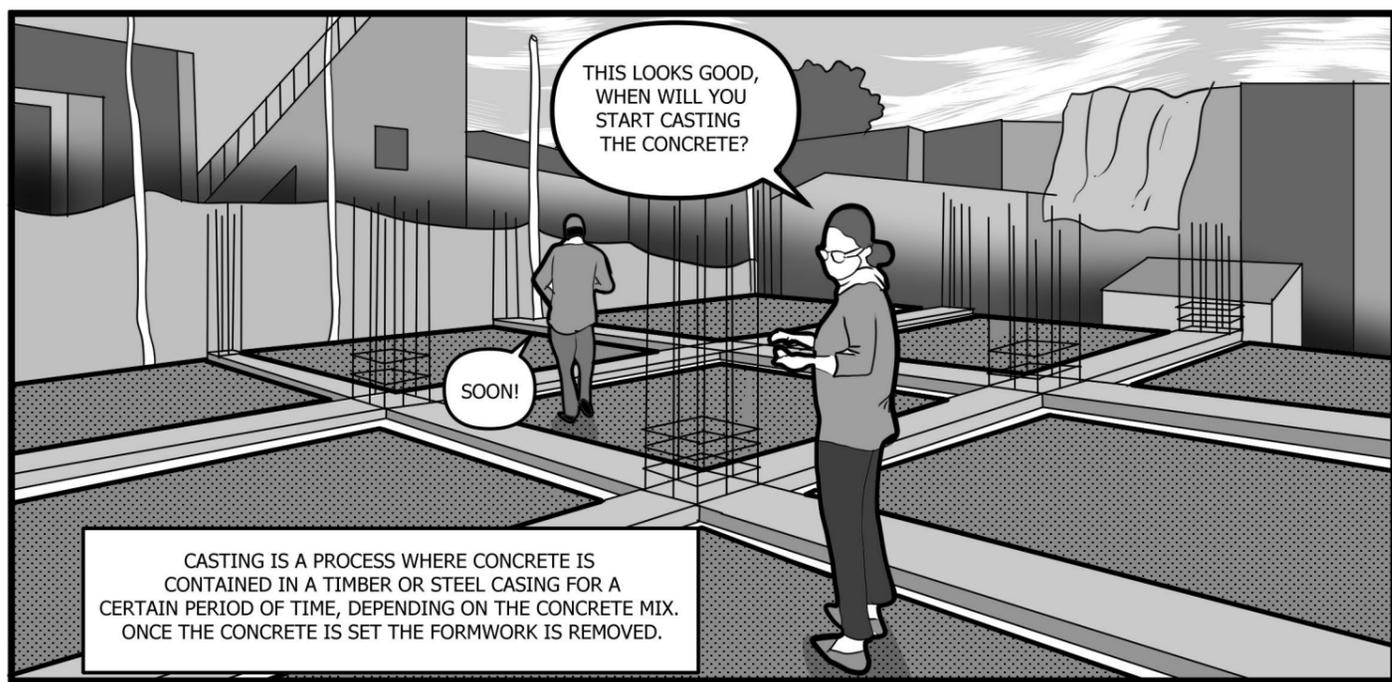
SHOULD I GET MY LAPTOP

GOOD IDEA!



HEY JOSEPH HOW'S IT GOING?

WE HAVE PUT UP THE FORMWORK OF THE SLABS



THIS LOOKS GOOD, WHEN WILL YOU START CASTING THE CONCRETE?

SOON!

CASTING IS A PROCESS WHERE CONCRETE IS CONTAINED IN A TIMBER OR STEEL CASING FOR A CERTAIN PERIOD OF TIME, DEPENDING ON THE CONCRETE MIX. ONCE THE CONCRETE IS SET THE FORMWORK IS REMOVED.

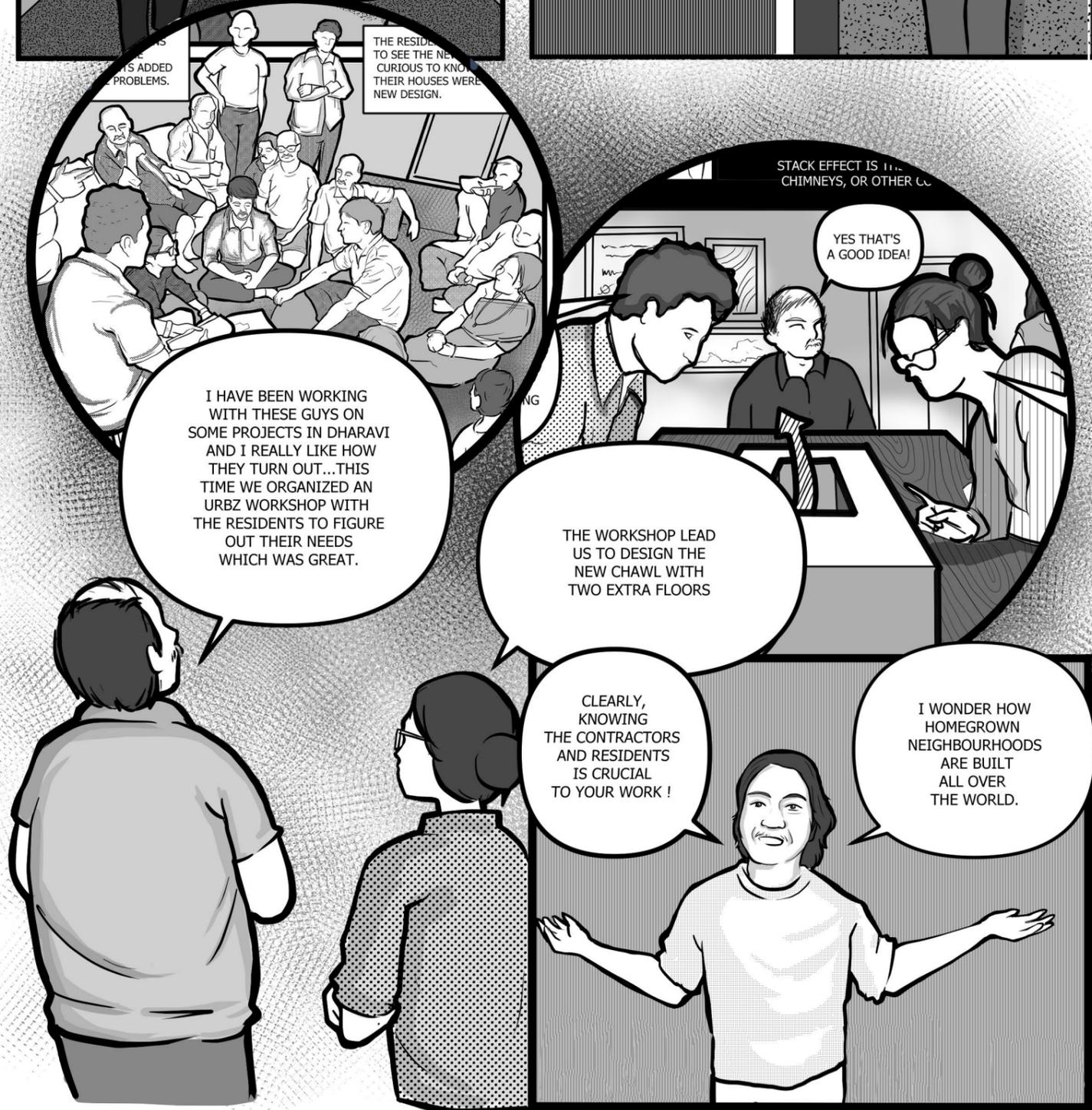


SO HOW LONG WILL IT TAKE TO COMPLETE THE RECONSTRUCTION OF THIS CHAWL?

IF THINGS GO SMOOTHLY - IN SIX MONTHS?



WOW! I WOULD REALLY LIKE TO KNOW HOW YOU DESIGNED THIS PROJECT.



THE RESIDENTS WERE CURIOUS TO KNOW HOW THEIR HOUSES WERE BEING REDESIGNED.

THE RESIDENTS WERE CURIOUS TO KNOW HOW THEIR HOUSES WERE BEING REDESIGNED.

STACK EFFECT IS THE RESULT OF AIR HEATING UP IN THE CHIMNEYS, OR OTHER COMMON AREAS.

YES THAT'S A GOOD IDEA!

I HAVE BEEN WORKING WITH THESE GUYS ON SOME PROJECTS IN DHARAVI AND I REALLY LIKE HOW THEY TURN OUT...THIS TIME WE ORGANIZED AN URBZ WORKSHOP WITH THE RESIDENTS TO FIGURE OUT THEIR NEEDS WHICH WAS GREAT.

THE WORKSHOP LEAD US TO DESIGN THE NEW CHAWL WITH TWO EXTRA FLOORS

CLEARLY, KNOWING THE CONTRACTORS AND RESIDENTS IS CRUCIAL TO YOUR WORK !

I WONDER HOW HOMEGROWN NEIGHBOURHOODS ARE BUILT ALL OVER THE WORLD.

COLIMA

WE HAVE FREQUENT FLOODS IN COLIMA. MY BROTHER WHO IS INTO CONSTRUCTION RECOMMENDED WE USE PLASTIC TARPS AND DIG TRENCHES AROUND THE HOUSE TO CURB FLOOD WATER. HE HELPED BUILD MY HOUSE AND MANY OTHERS TOO.

KARACHI

THE WHOLE COMMUNITY GOT TOGETHER TO FINANCE, DESIGN AND BUILD A LOW-COST SANITATION SYSTEM IN ORANGI!

KATHMANDU

CARACAS

WELL, WELL, DHARAVI IS NOT ALONE! IT SEEMS THAT COMMUNITIES AROUND THE WORLD SHARE THEIR RESOURCES AND EXPERTISE TO MAKE AFFORDABLE HOMES AND CREATE VIBRANT NEIGHBOURHOODS!

KARAIL

IN BOGOTA, WE START OFF BY RECYCLING OLD MATERIAL AND THEN KEEP IMPROVING TO CREATE BETTER FACILITIES.

WELL, HERE IN CAPE TOWN WE LOOK FOR UNUSED BUILDINGS AND ADAPT THEM TO SUIT OUR NEEDS.

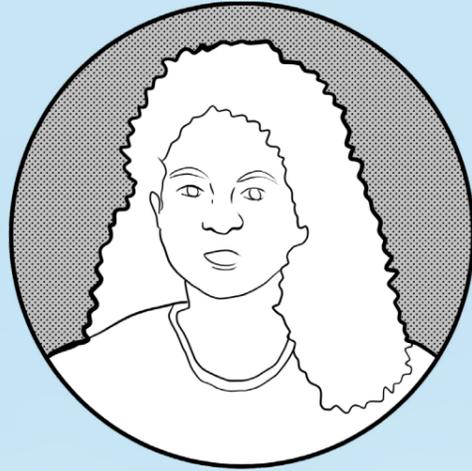
CAPE TOWN

SANTIAGO

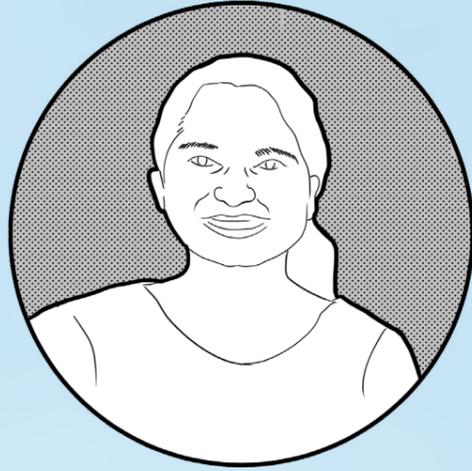
DHARAVI

BOGOTA

CONTRIBUTORS



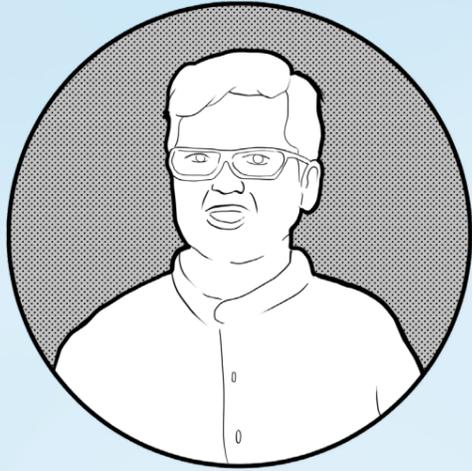
KAREENA KOCHERY



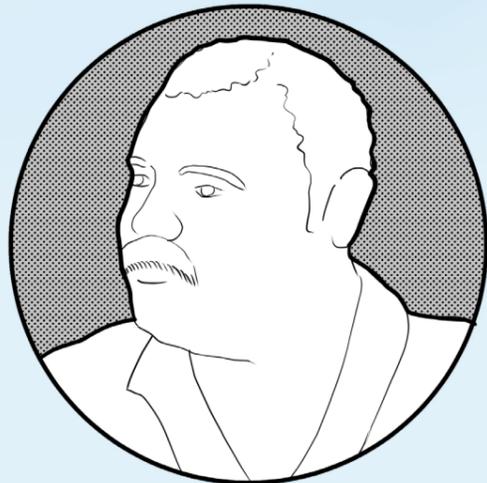
SAMIDHA PATIL



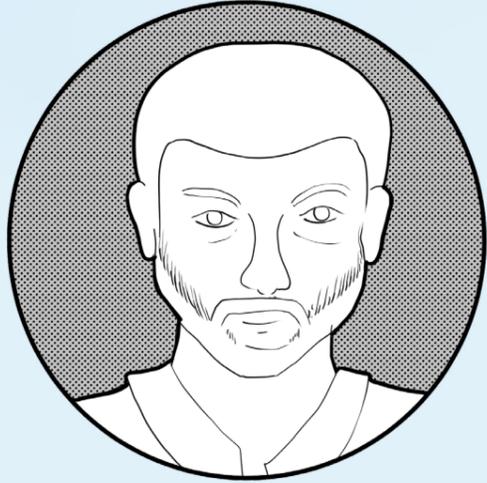
PARTHA SHRUNGARPURE



RAHUL SRIVASTAVA

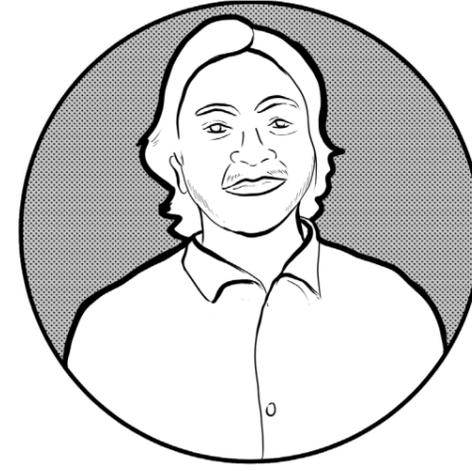


JOSEPH KOLI



PRINCE KOLI

ABOUT THE ARTISTS



BRENDON J. D'LIMA



ADITYA S. WARRIAR

Brendon J. D'lima, a Mumbaikar currently pursuing his final year in Architecture at L.S Raheja S.O.A. Brendon with his creative mind loves to explore what lies beyond the box. He believes every brick has a story that needs to be captured through sketching and rendering. He is an ardent reader and a drummer. He aspires to explore designs in all of its forms like his chosen muse, Mies Van Der Rohe.

Aditya S. Warriar, a Malayali who grew up in Delhi is currently pursuing his Bachelor's of Architecture in Mumbai at the L. S. Raheja School of Architecture. He is passionate about Design, loves to sketch, and has a keen eye for detail. He likes to describe himself as a Cinephile and an Anime/manga enthusiast. Curious about storytelling, he often tries to express himself in the most creative way possible.

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2=20

THE GROWTH OF VITHAL BHASKAR CHAWL, DHARAVI

Ever wondered how houses are built in Dharavi?

'2=20' gives you a glimpse into how the houses of two brothers turned to twenty.

It takes you through a journey from the history of Vithal Bhaskar Chawl to its redevelopment, emphasizing the role of local contractors in the development and redevelopment of Dharavi and providing an insider's view of the construction process.