Ahmedabad: Past, Present and Possible
Chabutro Ecologies —— Narrative riparian market
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As for the relationship between people and architecture, there have been a lot of researches in the long course of architecture development. From different research Angle, research method, produced a lot of different theories. Among them, C. Alexander believed that there was a hidden essential connection between human emotions and architectural space belonging to physical entities, which he called events. In his classic book the Eternal Way of Architecture, he said that life is made up of a series of events, and events are inseparable from the place where they take place, namely the space. Space support event. From the various spatial groups appearing in different cities and blocks, we can have a preliminary understanding of the daily life pattern of local residents. It is the events that make up their lives that form the space in which they live [1]. Therefore, the recognition of space is the recognition of events in space, and the experience of space is realized through the experience of events in space.

The narrative space is proposed on the basis of such research. It connects the events that take place in the architectural space, so that people can read stories and emotions from the spatial events, and get the experience of life existence and activity, so that people can have a dialogue and resonance with the architecture.
Narrative is not limited to discourse, but also exists in other forms of non-verbal art. Drama, painting and film are represented as untold stories, while architecture can be regarded as a three-dimensional narrative text with spatial factors. The relationship of architecture and narrative can be traced back to the times of ancient Greek, the arrangement mode of Acropolis temples is considered as a very sophisticated Montage narrative mode. However, in nearly twenties years, narrative concept has been combined with architectural theory, as a kind of design methods has applied in contemporary architecture creations. Although the development of narrative research of architectural space has gone through a short time, it has become very prevalent and very important part of contemporary architecture.

Starting with Benjamin's montage narrative technique in One-way Street, this paper explores the story of "Chabutro" in the city of Ahmedabad. Through the theoretical study of narrative space, the "story fragments" in the city, the traditional architectural space, are rearranged on the riverbank to construct the riverside space with narrative function and become the passage to read the riverbank, the city wall and even the city. It’s like writing a preface to the book of city.
Wall city is another name of Ahmedabad. In 1487, a wall with a 10-km-circumference was constructed to encircle the city and protect it from enemies. Over the next few centuries, the city grew steadily outgrowing the space within the city walls, spreading further outward even to the other side of the river. Eventually, most of the walls were removed, and today only the gates still stand, as well as a short section of wall also stands along the riverfront. The area within the boundary of the old wall is known today as the “old city”. The old walls bear witness to the city’s historical development.

The city within this wall and gates is the old city, that has narrow alleys suitable only for walks and two wheelers. The old city has been divided into units called ‘pols’ where people from the same caste and community live together. Some of these pols also have a temple at the center and the architecture of these buildings are wonderful with beautiful carvings on wooden doors and pillars and fresco work on the walls. The pols also have a structure called 'chabutro' which is a bird feeder meant for the birds to use as their houses and built in the replacement of the trees that were cut for building up the city. Chabutro is the product of the development of the new city, but it also represents the culture of the old city which stands between the new and the old, the past and the present.
The riverside dam project is intended to improve the relationship between the city and the river, but also to make the city and the river completely isolated into two adjacent but unrelated areas. It becomes a barrier between the old city and the new. The riparian market itself is a connection between the old and the new, as the city evolves through history. The location is also between the old and the new walls, and has the potential to be a “chabutro” that connects the old and the new, past and present.

POSSIBLE:
Narrative riparian market:
• Retain the original market functions
• Construct new narrative space (new chabutro) to express regional culture
• Construct new relationship between nature and chabutro to redistribute wetness
Montage has long been known to the public as a means of editing in movies. However, the word "Montage" originally came from the French architectural term "Montage", meaning composition and assembly. The building assembles seemingly unrelated structures and materials to create a new spatial meaning. As a powerful creative means, montage superimposes a critical perception on our understanding of space in our daily life.

In movies, montage is used as an editing method to connect scenes. In architectural design, the construction of space is used to construct a place for the occurrence of events. As Norwegian architectural theorist Norberg Schulz said, "People's interest in space is rooted in existence. It arises from man's grasping of the relation of living in the environment and his demand for meaning or order in a world full of events and actions"[2]. So, to some extent, events will be able to be expressed through space. Although both film and architecture provide platforms for events, they have different narrative approaches. The film is narrated through the cutting and grouping of shots, scenes and paragraphs, while the architecture is narrated through elements and materials, color texture, spatial structure, path and function.

The story is the core of the film creation, and the architectural design should be human-centered. As some scholars have pointed out, "When space and time elements, human behaviors and events are combined..."
together, space becomes a place, and the diversity of experience is the most important feature of narrative space³. Both film and architecture pay attention to primary and secondary changes, but the film is the arrangement of the before and after fragments, while the architecture is the treatment of materials and space.

Montage, as a structural method, reflects the overall relationship between the whole and the parts, and between the parts. It is the weaving and construction of all the contents of the work, as well as the organization, combination and configuration of all parts of the work. If function is the soul of architecture and material is the flesh and blood of architecture, then structure is the skeleton of architecture. The structure can be divided into different levels and categories. The overall structure is the method of material organization in the overall scope, and the layout method of how to configure and turn the main space of the building, such as the sequential development of end-to-end and spatio-temporal interweaving of multiple scenes, which is equivalent to the design of the article. Scene and paragraph structure are local structure methods, which are the material organization and configuration of each scene and paragraph, such as contrast, parallelism, etc., which are equivalent to the syntax and chapter of the article. The detailed structure is equivalent to the vocabulary of the article. Architectural montage connects space according to the logic and aesthetic principles of life, which is similar to joining words into sentences, joining sentences into paragraphs and joining paragraphs into paragraphs, with its own syntax and rules. All elements (morphemes) of architecture, such as doors, Windows, walls, columns, roofs, eaves and other forms (structures), constitute architectural language, and architectural language itself constitutes a morpheme of urban text language system, and urban life is like a system.
Benjamin extensively discussed the liberating power of film and photography in many of his works. Although film montage is a principle of control, Benjamin's interpretation of film and photography montage differs from that of Bilge and Eisenstein. Benjamin was more concerned with the production of the pieces themselves than with the sequential integration of the pieces in the film. He was interested in camera close-ups that, for Benjamin, extended the boundaries of images by explaining to the public what was invisible to the naked eye.

Benjamin's understanding of the relationship between montage and architecture is like the understanding of the relationship between montage and camera. He thought of architecture as an "optical instrument". Just as a camera can allow a group to discover things that are "visually invisible" by pulling things out for analysis, architecture can also expand people's vision. Here, architecture is a tool to edit, cut, reconstruct, and abstract the image of the city. The masses form a fragmented impression of the city when they take risks in these montage structures.

Eisenstein, the master of montage, believes that the image of the street begins to emerge and form in consciousness and feeling, just as its elements gradually form a unified, unforgettable, and complete image in the process of artwork. This law of individual entering people's consciousness and emotion through wholeness and wholeness through image is montage thinking. The way in which art creates images is only the
reproduction of the process by which life itself forms images in people's consciousness and emotions. In ordinary times the objects we perceive are themselves discontinuous, but sensory activity is continuous. When we transfer the continuity of our senses to the things we perceive, we create a complete and continuous impression of the things around us. What we see when we go shopping are only fragments, and it is these fragments that together make up our overall impression of the street.

The architectural fragments are closely related to the participants, recording the story fragments that take place within the architectural space. Architectural fragments constitute the whole of the building. Story fragments make up city culture. The whole building tells the culture of the city to the audience.
At the beginning of the 21st century, Professor Zhang Nan of Central South University put forward the "urban story theory" for the first time. The theory of city story raises the city memory from "object to place" to "place to story". Through the integration of natural environment, history, culture and citizen life, this paper explores the essential characteristics of urban meaning, namely, ecological wholeness. In the urban space, the observer's cognition of urban space is strengthened at a deeper level, so as to arouse citizens' thinking, memory and resonance, and make them recognize and love the city. It gives the city depth and readability.

The theory of urban story tries to rise further from the level of "field" to the level of "thing", to coordinate the construction of "thing" and "field" from the height of "thing", so as to obtain a kind of "meaning" understanding and self-realization, and to realize the pursuit of urban meaning. By studying the diachronic accumulation of urban history and culture, we can promote the communication activities of citizens and tell the unique stories of urban environment, which can strengthen the psychological experience and thinking of people in urban environment, showing a strong sense of urban meaning.
The story of the natural environment

The natural environment includes climate, geology, topography, water system and other natural resources, which are often the unique and personalized landscape of a city. In the process of mixing the local people with the natural forces, there are many folk stories and cultural transmission, as well as many structures to ensure the normal life of the people.

A historical and cultural story

The story elements of urban history and culture can be divided into two types: one is physical, such as old residence, ruins, urban fabric, etc.; the other is non-physical, such as name, color, language, sound, folk custom, etc. These elements of stories are symbols that reflect historical events, legends, memories and other historical cultures. The relationship between story elements and history and culture is signifier and signified. The interpretation of the symbols of the elements will trigger the thinking of the relationship between man and history and culture.
A story of civic life

The story is something that happened in the past, but the urban story space is not just static and connected to the existing historical environment. More importantly, it prompts new "stories" to happen dynamically and continuously. Citizens should not only appreciate the stories left to them by history, but also participate personally in the continuation and creation of the "stories". The so-called "telling their own stories", the current citizens should also become the director and protagonist of the new "stories". Roland Bmhcs argued: "The city is a discourse... We are talking about our city and the city we live in simply by living in it and walking and looking at it. Thus, the city itself is a meaningful and readable text, written by the very people who live in it."
A field study of Ahmedabad found that as the city grew, buildings replaced trees, but people’s longing for nature remained the same. Chabutro is a product of people’s desire to communicate with nature in this context. It is not only a pigeon tower, but also a channel for people to communicate with the city and the nature, in addition to the basic function of feeding pigeons. Generally, Chabutro is located in the center of some old pols within the old city, and it is usually a public plaza surrounding the residents. It is an important space for residents to pass through and gather. This makes this space a recorder of urban life in its surrounding areas. As travelers wander through the city, it becomes the natural storyteller of what happens on this side of the area. In fact, Chabutro is not limited to the architectural form of its appearance. Traditional architectural space in the city, such as mosque, ladder well, daily living space, such as book market, Sunday market, etc., are the story center within its certain radiation scope. They also convey different urban chapters to the viewer. And it is these stories that make up the book of cities.

In the book one-way street, what Benjamin sees is not limited to the picture. The fragments he describes are the extensions behind the things in the photo, which may be the life states of the people in the photo, the life trifles behind the signboard, and the historical changes of the building. These fragments form a story centered on the photograph and make the two-dimensional space in the photo stereoscopic. Finally, a complete three-dimensional narrative space is formed in the mind of the viewer.
Fig 2. The story place in the Ahmedabad
Chacutro is located in the heart of Old Pols and is surrounded by public space. But it carries no practical function other than feeding the birds. I tried to reframe the original Chabutro in its place, with a regional culture and a specific function. This makes this area a new form of urban space centered around the new Chabutro.
In general, people are the source of the story and the witness of the story. In a specific environment of a city, people's language and actions are the most direct description of the environment. So the first step in reading about the city is to read about the people in the city. I selected several areas in the city: Sunday market, old Town book market, and street tea house. Through photos and video recording, the representative action of the characters and the state of the environment of the characters are intercepted. Then rearrange them according to the time the action takes place. You get multiple combination bands, which I'll call...These strips act like storylines, they depict the stories of the people inside the zones, and they become paths through which they're read.
Fig 4. Photos of the chabutro and market, by Ziyang CHEN
Taxonomy of strips
Architecture is both a recorder and a narrator. If people are the source of stories, then architecture is the carrier of stories. The story unfolds in the architectural space and inevitably leaves indelible marks on its interior or surface. A specific architectural space provides a specific look and feel to the visitor. The Spaces and structural fragments that make up the building are like the pages of a book, and the tour is like reading the pages. I selected architectural spaces similar to chabutro in the city, including buildings that already exist around the site, pols that generally exist in the city, and areas with similar functions in the city based on the function of book market. Study the extent of their exposure to the city as the center of the story, and the connections between them. Arrange these architectural spaces into architectural strips. Then the architectural elements are screened and reorganized into a new architectural space on the site.
In the second semester, in order to study the humidity of the site, a new research method - bath ball experiment was introduced. The process of dissolution, stabilization, and elimination of the bath ball shows us a relationship between the changes in the humidity of the site over time and the people and the building within the site. Areas with more color and lines indicate that things in the site are more closely related to humidity. We defined these areas as the build locations for the new chabutro. In this semester, I cut the texture of bath ball into strips and rubbed it on the field. This forms the narrative strips of humidity, giving the site another storyline.
The new urban space consists of three storylines of people, buildings and humidity, which are superimposed to create a passageway. This passage strengthens the connection between the water and the land, allowing water to enter the city. It's also a new opportunity to read the city from the river. This new regional arrangement can be widely distributed on both sides of the river without limiting its functions.
Chapter 2——Narrative space
Spatial narrative

As an important branch of post-classical narratology, spatial narratology emerged at the end of the 20th century, represented by scholars such as Henry James and Joseph Frank. Among them, Joseph Frank elaborated the connotation of spatial narratology in his book the Meaning of Spatial Form. That is to say, narration is a way of expression, whether in history or contemporary society, there is a certain space. The spatial character of the narrative is mainly reflected in the reorganization, structure and representation of the space. By considering the elements in the space, the true meaning of the narrative subject is expressed.\(^6\) On this basis, Frank further deepens his definition of spatial narratology, that is, to study the relations of entity space, paradigm space and consciousness space. The purpose is to establish a narrative space with the duality of time and space for the narrative subject, and to use the narrative space as a means to further study the connotation of the narrative subject. The development of a city also has a strong space-time duality, and the space of a city also has typical narrative characteristics. The method of spatial narrate can be used to analyze the spatial form and historical process of a city.\(^7\)

Storytelling is as old as the hills. Even before the help of writing, universal myths were shaped by the oral tradition. From the Song lines of the
Australian Aboriginals to the proto-myths of the Greeks, mankind has searched for answers to the mysteries of the universe, painting them on walls and encapsulating them in stories. Narratives enabled phenomena powered by the unseen forces of nature to be 'explained', and corralled into a system of beliefs. Their overarching themes lie at the heart of the major religions. Narratives that personify ethical or existential questions have profoundly shaped our understanding of space; these mythical tales and parables have the power to mediate between the spatial configuration of the universe, of heaven and hell, and the everyday world and its reality of survival, sustenance and territory. Within the framework of these spatial geometries, narratives can engage with the medium of space, and form the basis on which architecture can be given meaning.

Narrative in Latin words "narrare" and "gnarnls" mean "to tell" and "to know". "Narrative is a means of communication, a form of knowledge and a mode of cognition, an intermediary between the self and the world, between the self and others, and a means of creating order and meaning for the discrete experience of mankind. "This way is not limited to the traditional meaning of language, but refers to all can convey information carrier." From the three elements of narrative: the narrator, the medium and the receiver, narrative can exist in other artistic carriers of non-verbal forms, such as film, sculpture, painting and architecture, etc., and
is expressed as a story that is not expressed in words or orally. Since the premise of narration is the communication relationship between narrative media and the receiver, if the space is designed by narrative designer to establish a close relationship between people's behavior induction and the space, the space will also become the carrier and be endowed with the connotation value of narration.

Fundamentally speaking, "all discourse is narrative". Narrative is one of the basic ways for human beings to convey information, and also one of the basic ways for people to interpret the outside world. Spatial narration is a new concept gradually formed on the basis of the theory and method research of narratology in recent years. It is a narrative medium in which the narrator uses the material elements of space to express the spirit of the place to the recipient by means of relevant expression approaches such as signifier and signifier, and triggers the recipient's experience of a series of spiritual worlds. At the same time, in the process of interpretation, it is possible for the receiver to self-interpret the space according to the different cognition of narrative media and individual knowledge system.

"Architecture is not only a matter of shape, but also a carrier of urban culture. Architects are not merely designing forms, but creating social public spaces. Architectural design is not a form of knowledge, but a form of knowledge to explore the world. People can explore the world in other ways, as film directors, as artists, as architects."—Bernard Tschumi[10]

Any narrative work must express some kind of exploration of the world by the creator. I think architectural works or any form of works are the same, but the tools and media of expression are different. Narratology is just an alternative way to understand and create architecture, and we can see the world as an architect as a writer. It’s easy to understand if you just compare architecture to narrative, but it’s not so easy to understand how architecture tells a story. Does writing a story on the wall of a building, or placing a historical relic inside the building to remind people of something, mean that the building can tell a story? I will make some assumptions about narrative architecture from the perspective of narrative semantics and my own understanding of architectural space. In order to clarify the
concept of architectural narrative space, we should start with the definition of "narrative". As already mentioned, narrative is no longer a literary category. Modern narratology has become an independent discipline, which studies the commonness of narration and does not care about its medium of expression. That is to say, the definition of "narrative" that we're talking about here is not just for written narrative, but for any medium. This is also the basis on which we can use architecture as narrative media to construct narrative architectural space. "Narrative" is to tell a story. In a literal sense, a complete narrative must include both narrative elements and the described element. The narrative element can be related to the narrator, and the described element can be related to the person or the time the character is in or the space they occupy. We can regard the volume, material or any medium applied to the building and the space constituted as a conveying narrative element, from which the "narration" is jointly initiated. The narrated elements can be users of the building or related to the time and space that users participate in. These elements are combined into "events or states", which can be preset by the architect.
In the field of architectural design, since the late 20th century, some Western architects have carried out theoretical and practical discussions on narrated events, such as John Hejduk’s House of the Suicide in the Czech Republic. Among them, Bernard Tschumi’s Parc de la Villette is the most prominent. He believes that architecture is made up of space, time and activity. The space is just a kind of inducing event, which is also telling the story. The design should not put the space in the cold position, but put in the warm narration. From this space design ability vivid rise.

In the field of landscape design, Jamie Purinton and Matthew Potteiger, the earliest British landscape designers, extended the concept of narrative to the field of landscape design in *Landscape Narratives: Design Practices for Telling Stories*. The concept of landscape narrative implies the relationship between landscape and narrative. Landscape is not only the scene of events, but also a constantly changing narrative. Scenes and activities produce stories together. As stated in the article: "A path can form a spatial sequence and at the same time provide various possibilities for people to meet. The scale of space can be epic or limited to personal drama. The narration in the landscape often implies the key to interpret the secret of the scene, and also leads the viewer to interpret it. People often understand landscapes in a narrative way."[11]
New chabutro was constructed by using central architectural fragments selected from the city, providing a place to arrange specific usage functions. And I try to design a certain area of landscape radiation range. These can become the central narrative point of the various subdivisions of the Riverside Market area.
Chapter 2——Narrative space
Narrative riparian market

According to historical photos, with the construction of the dam, a gap between the old city wall and the river channel formed, providing the site for the Sunday market, which has been a tradition for more than a decade. Stalls, commodities, people, animals and all the elements in this market have their own stories, just like a book. The Sunday market is like a bookshelf, recording the people, the wall, the dike, and the life of this area. The market just like a dissolver, softening and dissolving the hard and old wall, which connect the old city to the river. The market is the unique cultural identity of the region.

Just as Greil Marcus said in One-Way Street’s Preface: “Benjamin countered: the fragment reveals the whole”. In the process of reading the riparian market, I tried my best to capture my own perception and inner cognition, and hope to gain the magic of building “fragments” of a city into “whole”. This will not be a simple process of extracting and reassembling the fragments, but rather reading the stories described in each fragment and editing them into a complete article describing the culture of the region using the techniques of the architects. The remaining fragments of the past are used to shape a continuous narrative space, to express the existing culture and to construct new possibilities.
The plot I have chosen is a relatively open area between the old city wall and the riverbank. The reason for this is that the site is relatively spacious, just like a piece of white paper, leaving enough space for the practice of their professional ideas. Second, this area is not only adjacent to the city's historical and cultural carrier, namely the old city wall, but also adjacent to the river which is regarded as holy water for religious reasons. Based on the previous research on the overall urban and core buildings and residential activities, I will re-plan and design this area with the methods, concepts and logic that are reflected through in-depth analysis and thinking. It strives not only to give this area new functions and cultural or spiritual connotations, but also to lead people to get in touch with it and enjoy it, and to make it remain an inevitable and organic part of the city. In the newly constructed narrative market, the new chabutro are functional centers of their respective regions, like narrative centers for individual story segments. Humidity in the construction provides them with connections on the landscape, and also connects the stories of the regions. This studies the relationship between the centers of the city.
Standing on the old city wall, the most striking building in the area visible from a distance is the library. It is like the core symbol of this area, and it is also the first building that people come into contact with after stepping into this area. On the premise of maintaining the functional space of the library, it will also be designed as a place where people are willing to stay and have a short rest. The quiet environment and comfortable light create a space for reading. The fragrance of books and ink adds the flavor of culture. The library building is composed of the architectural elements of the central building selected in the city and carries the narrative context of the public space in the city. The use of red brick materials blends the story of the city into the narrative atmosphere of the old city walls.

Those who leave after a short stay will next step into a book market. People who have been exposed to the smell of books may be interested in picking and buying books that interest them. It is both a place for book trading and a place for conversation. This area is designed as a simple open space, and only simple structures are used to create the scene of the traditional book market in the city. The blank space gives traders to independently weave the market flow.
Walking through the book market, strolling down the riverbank, the noise of the market in the ear is gradually replaced by the sound of the flowing water. The moisture in the air is caught in the breeze blowing from the river to bring coolness, making the mood slowly soothing and serene. Riverside retreats extend to the water, providing unlimited access to holy water, either to cleanse the body and mind, or to sit in meditation, as the cool water flows into the unknown distance. The Ghat will break the barrier between water and land. The buildings are located at different heights of the ghat, which can be flexibly switched with the fluctuation of river water surface and become the connection channel between land and water.
Coming all the way from the old city wall, as if through the past, the present and the future, the urban context is condensed, reorganized and presented here.
SITE PLAN 1:1000

Fig 15. Site plan
In the narrative of architectural space design, function is often a very important part. The function not only solves the main purpose of the building, but also carries more narrative space. In the interior space of the building, the function is not always the same, and will change with the users' various specific behavior space functions. Even in a space with relatively single functional orientation, users cannot maintain a single behavior. Therefore, when solving the narrative problem of space design, the analysis of the definition of functional behavior can provide narrative support for all kinds of behaviors that individuals wish to complete in the space. The analysis of human behavior let the spatial pattern can meet the diverse needs of users, which is the main characteristic of contemporary architectural design style, but also the extension for this kind of narrative art.
Whether it is a building that has existed in history or in the process of construction, a building without any function does not exist. Therefore, under the influence of the narrative style of modernism that emphasizes function, even the architectural style of postmodernism cannot completely negate the functional goals constructed by the original modernism, even if it exerts an influence on the narrative nature of architectural space design. In the narrative features of the spatial design of buildings, the continuous improvement of functions is a manifestation of the complexity of buildings and their internal contradictions. Although the architects of postmodernism avoid the oneness of the function in the process of building, they give rich imagination to the spatial layout. This rich imagination includes the imagination of various possible functions, as well as the further response to the user's subjective experience. This is also the decline of postmodern architecture in the later design process, and presents a more complex evolution characteristic.
From the perspective of users’ spiritual satisfaction, the narrative in the architectural space design should be a response to the spiritual function. This psycho-functional response includes a variety of characteristics. Pop art and structuralism architecture, its inherent narrative is also to meet the spiritual needs of users as the main function, so in this kind of narrative evolution process of space design, must emphasize spiritual demand of contemporary buildings users echo, thus truly functional requirements of continuation of modernism architecture concept. This characteristic in the narrative development process of the spatial design of contemporary buildings is often reflected in the further satisfaction of personal happy spiritual experience. That is to say, in the process of contemporary building design, users must meet their daily basic functional needs if they want to feel happy spiritual experience in the building. At the same time, in the process of design, more consideration is given to the impact of personal style on the building, and analysis of users and potential users is an inevitable way to enhance the spatial accumulation of contemporary buildings in space design. Thus it can be seen that the functional requirements and the response to the functions are the main starting point of the narrative spatial design of contemporary buildings, and also the end point of its narrative.
The first floor of the library is a tea room, which is designed as a semi-open space. It provides a space for people to communicate and also serves as a transition between the indoor library and the outdoor book market.


