ARCHITECTURE IN ANIME

UNDER GUIDANCE OF - AR. SURUCHI SHARMA

SUBMITTED TO -   **SUBMITTED BY-**

AR. ANUGAYA SHARAN   SHRIYANSH JAIN

AR. YASHIKA GUPTA   0809AR1181104

School of Architecture

IPS Academy, Indore

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1 INTRODUCTION

1.1 WHAT IS MANGA

Manga is an umbrella term for a wide variety of comic books and graphic novels originally produced and published in Japan. Unlike American comic books, which are usually printed in full colour, Japanese manga are almost always published in black and white. Full-colour prints are often only used for special releases.

Manga (mon-guh) is the Japanese word for comics published in Japan. The word itself is comprised of two characters: *man,* 漫 meaning "whimsical" and *ga* 画 meaning "pictures."

Manga as a form of entertainment has a rich and interesting history and it is my hope that this guide shows a glimpse into the delight that is manga.

Manga is read right to left beginning with the rightmost panel. The spine of the manga should be towards your right hand when you start reading, if not flip it over!

Manga should not be confused with anime, which are Japanese animated shows and movies. However, many anime (animated shows from Japan) is adapted from a manga source.

1.2 WHAT IS ANIME

Anime is hand drawn and computer animated originating from Japan. In Japan and in Japanese, *anime* (a term derived from the ENGLISH word *animation*) describes all animated works, regardless of style or origin. However, outside of Japan and in English, *anime* is colloquial for *Japanese animation* and refers specifically to animation produced in Japan. Animation produced outside of Japan with similar style to Japanese animation is referred to as *anime-influenced animation*.

Anime is a diverse medium with distinctive production methods that have adapted in response to emergent technologies. It combines graphic art, characterization, cinematography, and other forms of imaginative and individualistic techniques. Compared to Western animation, anime production generally focuses less on movement, and more on the detail of settings and use of "camera effects", such as panning, zooming, and angle shots. Diverse art styles are used, and character proportions and features can be quite varied, with a common characteristic feature being large and emotive eyes.

Anime is a Japanese popular culture phenomenon and has become a globally consumed cultural product. Anime, as a novel form of animation, reflects Japanese aesthetics, iconography and social norms and builds on previous Japanese arts, such as Kabuki and the woodblock print.

1.3   ANIMÉ, MANGA, AND THEIR RELATIONSHIP:

Anime is yet another umbrella term for all forms of animation created and published in Japan. When most people hear the word 'anime,' they think of adaptations of manga series, such as *Dragon Ball Z* and *Sailor Moon*.

If a manga series is popular enough, it might then become an anime, as was the case with both *DRAGON BALL* and *SAILOR MOON*. In some cases, the opposite is true; a popular original anime will be given a manga adaptation. However, the two terms are not interchangeable.

Anime is Visual media. Manga is print media. That is the difference.

Most animé are developed out of successful franchises that began as manga. An important aspect of this is that manga in many cases have details and plotlines either simplified or not explored at all in the following animé. In some cases, especially when an animé is designed for a large and/or international viewership, the nuances of the plot are brought into more simple terms to allow for faster flow of the narrative in a half-hour television slot.

For the exploration of architecture within manga and animé, the animé examples are often of greater interest because the narrative style of an animated feature allows for more of the architecture to be" seen" or experienced by characters and viewer alike.

In addition, in some cases architectural style is changed or simplified in animé from the original in manga— not surprising given the changes in general that result when a manga is converted for an animé.

Japanese woodblock printing techniques which had long been used to tell sequential, linear, narratives though normally of shorter length and rather simply plot-lines. Thus, manga has had a history that can be traced back at least to the Edo period and is a cultural force very much within the broad scope of contemporary and historical Japanese culture. Without a doubt, there are scholars who would consider manga outside of the realm of "proper" Japanese studies and in contrast, many who would in fact consider it within that scope, but the social impact of manga transects a lengthy period of Japanese cultural history. Animé as we know it would not exist without manga, however, due to the popularity of film and television, the ability of animé to expand

worldwide and garner greater sales revenue than manga is obvious and therefore major studios will place more funding in animé projects than manga.

Because of its popular reach, anime affects a wider variety of audiences, ranging from young children to college students and young adults, in more ways than some less-accessible types of high cultural exchange have been able to do (Napier 2001a). Thus, for Napier (2001a), anime appears to be a cultural phenomenon worthy of being taken seriously, both sociologically and aesthetically. With their more provocative, more tragic worlds, anime works move and provoke viewers, stimulating them to work through certain contemporary issues in ways that older art forms cannot (Napier 2001a). Stokrocki and Delahunt (2008) stated that anime can motivate discussion of major life issues, such as ecological sustainability

Anime can develop an understanding that moves beyond the common human–environment relationship approach. With their unique aesthetic world, which is more provocative, more tragic, and contains far more complicated storylines, anime can be a tool for understanding the complex human–environment relationship and environmental problems for architects.

Obviously, manga is unique as a genre because it is drawn and therefore has close kin in Western comics and graphic novels and a history in Japanese culture tied to Kibyōshi: aside from Western comics, it is a genre that is neither directly an analog of literary evolution or of visual graphic or fine arts. Animé, then, we see as evolving from manga, from film, from animation in general but sourcing not only (in recent years) most of its narrative material but also its cultural and narrative conventions from manga with far less influence from other sources. Post-World War II introductions of American—especially Disney—animation certainly also helped forge a path of what animé would become, but developments were brewing in other parts of Asia also, with Korea and British

Hong Kong making strides in the development of both comics and animation that would later influence—and in turn be influence by—manga and animé. While much scholarship of manga and animé draws attention to the fact that both genre apply a variety of traditionally Asian philosophical systems and aspects, such as elements of Taoism and (in many cases rather trite) cultural typologies such as ninja and ronin, the impact of traditional sociocultural norms and the interface between contemporary Japan and pre-war Japan is less examined in most cases.

1.4   AIM OF THE DISSERTATION

The aim of the dissertation is to examine animé and manga as unique forms of "world-building narrative" fictional discourse and then to examine how animé and manga apply architecture in the service of furthering the narrative at hand.

1.5   OBJECTIVE

- To study how do animé and manga from Japan portray the architectural and cultural history of Japan.

- To study the frames and how the frames react with the character.

- To study how architecture is represented in current Japanese animé and manga.

- To study how animé and manga apply architecture in the story telling perspective

- To study how futuristic or fantasy worlds are considered in animé and manga

1.6   SCOPE

- Representations of Architecture in Japanese Animé and Manga

- How do animé and manga from Japan portray the architectural and cultural landscape history of Japan and that of other cultures and nations."

- Understanding World building narrative through anime landscapes from the vision of Hayao Miyazaki - Ghibli Movies

1.7   LIMITATIONS.

- Sample Size: The amount of anime movies or shows can be watched are limited

- Access to Samples: Being in India the access to Japanese content is restricted to some extents

- Perception: since there is no one in my reach who knows the in and outs of anime, there's a limit of how much I can perceive

- Language: most of the books and content are in Japanese with minimum to no translation

- Availability of only Secondary data

1.8   METHODOLOGY

- Understanding the concept of creating illusion and perceived reality/ fiction...

- Understanding the Japan tradition and history thought their traditional form of media.

- Manga Study: Manga comics will be chosen to bridge the gap between 2d still visual media to animation media

- Movies and Series Studies: Anime Movies and Series will be chosen to understand the animé and manga as unique forms of world-building perspective

- Character study: Analysing anime characters and how they react with their environment with respect to Architectural perspective

2   HISTORY

2.1   HISTORY OF JAPANESE ART

The earliest inhabitants of Japan likely arrived from mainland Asia thousands of years ago, so it's no surprise that Japanese art has a long history of Chinese influences. Many foreign techniques were adopted and developed locally with a unique character.

By the late 19th century, Japan opened to the western world. At that time, some tried to categorize Japanese art as a single style. However, Japanese art is incredibly diverse, and each historical period has its own characteristics and prevailing forms of art.

The study of Japanese art history is commonly divided into periods, which often correspond with important political or social changes. Let's look at these different periods one at a time.

The Jomon period	10,500-c. 300 BCE	Which saw a lot of decorated pottery
The Yayoi period	300 BCE-c. 300 CE	Which saw a lot of metalwork and pottery
The Kofun period	250-538 CE	Which saw a lot of burial architecture and pottery
The Asuka period	538-710	Which saw an increase in Buddhist architecture, sculpture, and painting
The Nara period	710-794	Which saw an increase in Chinese-influenced architecture and Buddhist scroll rolls
The Heian period	794-1185	Which saw more Buddhist sculpture and painting, literature, and calligraphy
The Kamakura period	1185-1333	Which saw a lot of religious art and military metalwork

The Muromachi period	1336-1573	Which saw changes in castle architecture, calligraphy, and painting
The Azuchi-Momoyama period	1573-1603	Which saw more secular paintings
The Edo period	1603-1868	Which saw more local style on the rise, like wood-block printing, helping its spread
The Meiji period	1868-1912	Which saw the first foreign influences show up in a long time, as well as crafts becoming replaced by mass-produced items
12. The Taisho period	1912-1926	Which saw far more Western-inspired architecture
13. The Showa period	1926-1989	Which saw the rise of new and traditional arts, like painting and manga
14. The Heisei period	1989-2019	Which saw the rise of contemporary art forms, like anime, video games, and certain kinds of pop music

And, finally, Japan recently entered into its new era, the Reiwa period.

Figure 1 : HAYAO MIYAZAKI'S VISION by Julia Remington

2.2   HISTORY OF MANGA

With a long history deeply rooted in the rich Japanese art, **manga** are one of the most fascinating phenomena

in Japan and the whole world. Part of

Figure 2 : Naruto Manga Cover

the **"otaku"** ("nerd") culture, these comics have been a major player in the country's **publishing industry**, creating **a robust market**, reaching **millions of readers of all ages** and influencing a number of works of comic book art in a variety of other nations.

From history and teenage romance to futuristic science fiction and profound themes of life, manga became **an important, almost inevitable aspect of Japan's identity** and they helped spread knowledge and understanding of it across the planet.

Figure 3: The history of Manga Buddhist manga

Focusing on creating a unique aesthetic and alluring narratives, they often evolve into anime and even cosplay, remaining constantly popular within their ever-growing community and collectors.

2.2.1   A BRIEF ON THE HISTORY OF MANGA AND ITS GROWTH.

Mangas are Japanese graphic novels or Japanese comics. Manga comprises two characters, namely "Man" which means "Whimsical" and "Ga" meaning "Picture". In Japan, 'manga' literally means cartoons or comics. And for those who speak English, as soon as we hear the word 'manga' we understand it means 'Japanese Comics'. Manga originated in Japan around the 12th Century. They wrote it in a scroll from right to left style, which is just like the manga of today's generation. During the Edo Period (1603-1867), there are picture drawings which people call Toba Ehon. These became the predecessors of this concept and image of manga. But when we say picture books, the 6th and 7th century saw Buddhist monk creating picture scrolls. The modern manga and these picture scrolls have some similarities. Things like Cherry Blossoms and red leaves are input in the drawing to show the seasons. The most famous work was "**Chōjū-jinbutsu-giga"** or **"Animal Scroll".**

2.2.2   ORIGINS OF THE TERM MANGA

The term Manga was created by **Katshushika Hokusai,** a Japanese artist during the Edo period. He was a *Ukiyo-e* painter and printmaker during that time. He created over 30,000 works and his famous Woodblock print series was "**The Great Wave off Kanagawa".** Woodblock print became popular during the early 17th century with the most popular *Ukiyo-e* portrait of the **"Floating World".** This illustration is of the *Red-Light*

Figure 4 : The History of Anime (c) Katshushika Hokusai

District, which was one of the popular places to visit. In the late 18th century, *'Kibyoshi'* a genre of Japanese picture book *'Kusazoshi'* produced during the middle of Edo period, from 1775 to the early 19th century. The year 1784 publishes over 92 titles of these early manga. 'Kibyoshi' produced the first major **"Kinkin Sensei Eiga No Yume"** by **Koikawa Harumachi**, **1775**. Alot of people believe these were the world's first comic books. The artists print and illustrate them during the Japanese Edo period (1603-1867) and early Meiji Period.

Figure 5: The history of Manga Floating World (c) Katshushika Hokusai

But the word manga only became popular starting from the late 18th Century when ***Santo Kyoden's*** picture book "**Shiki No Yukikai"** publicized in the year **1798**. This, however, changes during the Occupation of Japan (1945-52) when U.S. brought Comics and Disney Cartoons in to the country. The U.S. cultural influence really helped manga develop as an art form. This also led to the burgeoning publishing industry that helped create a consumer-oriented society in publishing giants. Companies like ***Kodansha*** then shaped popular taste of the general public.

Manga became a major publishing industry in the 50s, and through the years, it became a world-wide phenomenon. To push for the international market, they began publishing in many languages other than Japanese. And when Manga first opened to the world, European artist introduce shading, and sequences as well as new techniques. Under the European influences, they started making humour magazines like **"Marumaru Chimbun"**, **1977** which became famous during the time. The influence of manga on the comics market has increased significantly in the last two decades. But it also had an aesthetic effect on comic artists around the globe.

2.2.3   19TH CENTURY

During the time, comics for western expatriate introduced western style comics to Japan in the late 19th century. This new publication became popular by the end of 1890s, in which the American style newspaper comics as well as American comic strips began in Japan. In 1902, **Rakuten Kitazawa** started the first modern Japanese comic strip. By 1930s, numerous monthly magazines publish comic strips and they circulate around various readers.

2.2.4   1920S-1950S

Figure 6: The History of Manga Propaganda Manga

By the 19th century, Japanese comics and artist flourished. But during the late 1920s and early 1930s, the Japanese government started to subdue artist and publishers. Magazines either closed down or expurgate

themselves. The government quickly arrests those who remain on the surface. These types of apprehend happened so often that the magazine would have to recruit employees. Their jobs are to just be a 'jail editor' who would have the honour of taking the punishment and saving his company.

Due to the impact of the 2nd World War, they considered any kind of criticism towards the government as treason. Some artist willingly follows the government while the rest follow by force. For those who cooperate with the Japanese government, rewards and honour were given by the government. While for those who deny and spend their career criticizing the government, received punishment such as detention, shun from society, or even forbidden to write. During the war, there are three basic types of comic strips. These are *'Single Panel Strip'* about Japan's enemies, family comic strips portraying about the war, and propaganda.

2.2.5   POST WORLD WAR II

After World War II, artists flourished and many publishers who were living in the underground during the war. They finally got back on track, which gave rise to many new found companies. These small companies publish cheap comics called *'Red Book'*. One of these artists happens to be a certain medical student we now know as **Osamu Tezuka.** As time passed by, artist made improvements in their work and created a wide span of categories within these comics. During the *Allied occupation of Japan* (1945-52) *and Post occupation* (1952 – early 1960s), the Americans brought their own comics and cartoons. They're famous titles such as Disney works, Mickey Mouse, Betty Boop and Bambi. These comics gave great inspiration to the Japanese artists, who then started drawing their own versions and style. Thus, leaving a great impression on the artists.

Over the years, Manga began to reflect changes in Japanese society with the influence of Western culture. This mix of both cultures gave birth to what we know now as Japanese Manga. What started with a comic strip in newspapers and magazines slowly became too big for them. Soon enough, they publish them weekly and monthly comic magazines.

2.2.6   PIONEERS OF MANGA

Osamu Tezuka who people know as **"The Father of Manga"** made great strides in this field. In his first manga **"Dairy of Ma-Chan" 1947**, he was still 17 years old when he started.

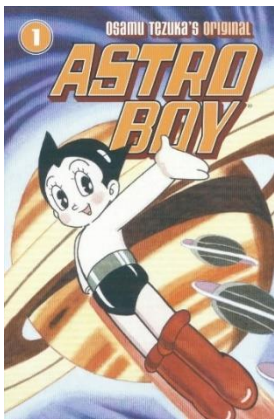*Figure 7 : The History of Manga Dairy of Ma-Chan manga (c) Osamu Tezuka*

Figure 8 : The History of MangaAstroboy (c) Osamu Tezuka

Another of his famous work in which he works together with **Sakai Shichima,** was "**Shin Takarajima**" (based on the novel **Treasure Island, R. L Stevenson, 1883**). They publish both this and Tezuka's first manga in "Tankobon From" in 1947. **"Shin Takarajima"** overnight success began the Golden Age of Manga. Though Tezuka real major success was **"Kimba the White Lion"** published in Manga Shonen in **1950-1954**. He went on to make **"Ambassador Atom"**, the first appearance of **"Astro Boy"** which became popular rapidly in Japan and other countries. (Tezuka drawn 150,000 pages in 40 years and sold some 100 million books in his lifetime).

Like Tezuka we have **Machiko Hasegawa** one of the first female manga artist and quite popular and successful during her time her most successful work "**Sazae-San**" published in **1946** it is also one of the world's longest running T.V. animation running since **1969 till present**.

She also won the 8th *"Bungeishunju Manga Award"* for **"Sazae-San"** in the year **1962.** Hasegawa was the first female manga artist who received the **Medal of Honour with purple Ribbon** in **1982**. She received the 4th **Tokyo Cultural Award in the year 1988**, the **Order of the Precious Crown, Fourth Class in 1990**. "**Sazae-San**" was awarded at the 20th **Japan Cartoonists Association Award, 1991** by the Minister of Education. Received 10th People's Horner Award, 1992 and also won a special prize at the **24th Tezuka Osamu Cultural Prizes, 2020**. Most of Hasegawa's work base women's daily life as the main topic which later became known as *'Shojo Manga'*. Between 1950 and 1969, Japan's two main marketing genre was *'Shonen Manga'* and *'Shojo Manga'*.

2.2.7 FORMATION OF "MAGNIFICENT 24" AND ITS PLACE IN THE HISTORY OF MANGA

In 1969, female manga artists came together and formed a group which was known as *'Year of 24 Group'* or *'Magnificent 24'*. This group includes names like **Moto Hagio** who people know as **"Founding Mother"** of modern '*Shojo Manga'* and *'Shonen-Ai'*. In the 1970s, she became an eminent female artist as a member of the *'Year of 24 Group'* . People describe her as **"The most beloved Shojo Manga artist of all time".** Her most remarkable works are **"The Poe Clan, 1972-76", "The Heart of Thomas, 1974"**, **They Were Eleven, 1975″** and **"A Cruel God Reign, 1993-2001".** She won many awards for her works, in 1976, **"Poe No Ichizoku"** and **"They were Eleven**" got the **21st Shogakukan Manga Award.**

"Zankokuna Kami Ga Shihai Suru" was awarded 1st Osamu Tezuka Cultural Prize (Award of Excellence) in 1997. In 2012 she was *'The First Shojo Manga Artist'* Japan's Medal of Honour with Purple Ribbon. It is in

honour of *Academic or Artistic Achievement*. 2016, Asahi Prize for innovative expression in comics and creative for many years. 2019, Person of Cultural Merit. Apart from these, there are several awards and works done by her. Over the years, female artist grew in number and usually base their works on *'Shojo Manga'.* This genre is now a staple in today's day and age and continues to grow.

Figure 9 : Examples of Shōjo (left) and Shōnen manga, dedicated to girls and boys respectively. Images via Wikipedia

2.2.8   GENRES THROUGHOUT THE HISTORY OF MANGA

The contemporary manga with the varieties of genre is all thanks to the experimental manga from the previous years. Manga features many genres like action, Fantasy, Romance, slice of life, etc.

Most of the manga artists portray their character with wide eyes. This goes way back to the *'Shojo'* magazine illustrations during the 19t century. *'Shojo'* was heavily influenced by famous *'Shojo'* artist such as **Moto Hagio** and **Riyoko Ikeda.** Apart from female *'Shojo'* artist, the two male artists who were popular with their *'Shojo'* manga were **Tezuka's "Ribon No Kishi" 1953-1956** and **Mitsuteru Yokoyama "Mahotsukai Sarii" 1966.** In the modern days *'Shojo'* Manga is mostly based on Romance genre. 'Shojo' manga slowly became a world-wide phenomenon. Manga like **"Fruit Basket"** by **Natsuki Takaya** became the most popular *'Shojo'* manga in the United States. By the 21st century, manga for women and girls represents a wide range of medium. Both for pre and early teenagers to adults.

Mangas are also based for boys (*'Shonen'*) under the age of 18 and young men (*'Seinin'*) between 18-30 years of age in which the genre are most preferably action, adventure or superheroes, where the protagonist is a male

character. Among the other popular Japanese manga genres, we also have *'Yōji'*, for children aged 1-4, followed by '*Kodomo (or Jidō)'*, for kids just learning to read. *'Josie'* for older teenagers and adult women.

In the 1950s, 'Shonen' manga focused on the concept of robots, space-travel, action-adventure, sci-fi, sports, supernatural, etc. Some resemble characters, such as Superman and Batman. Some of the oldest robot's manga are **Tezuka's "Astro Boy" 1952-1968** and **Fujiko. F. Fujio's "Doraemon" 1969**. Since the many years robot's genres have evolved to later ones. Sports is also a very popular genre for male readers. One of the most famous till date **"Slam Dunk", 1990** by **Takehiko Inoue** is still read by many**.** Action-adventure, superheroes genre is also popular among the *'Shonen'* and *'Seinin'* genre. They include from **"Hunter x Hunter",1998** by **Yoshihiri Togashi to "Fairy Tale: 100 Year Quest",2018 by Hiro Mashima.**

2.2.9   MANGA GOING INTERNATIONAL

Manga went international during the late 1970s in Europe and mid-1980s in America. Japanese comic has largely established itself around the world during this time and period. They are becoming easily accessible to those who love reading them. However, the true blossoming of international manga wasn't until the late 1990s with the wide popularity of **"Sailor Moon", "Pokémon"** and **"Dragon Ball".** It went on a hit as soon as popular shows such as these went world-wide in T.V. programmes.

Since written Japanese fiction usually flows from right to left, manga stories are also published to flow from top to bottom and from right to left. While some of the foreign publishers keep this format, the majority mirrors the pages horizontally before printing the translation. In this process known as **"flipping"**, it is very important to carefully adapt the translation to the flipped artwork so that it follows an image. At first, many manga creators such as **Akira Toriyama** did not approve of the modification of their work in this way. Still, due to the market expansion and fan demand, the right-to-left formatting has become commonplace abroad.

Manga is a global phenomenon becoming a multimillion-dollar market in the U.S and parts of Europe. Especially with its translations and world-wide accessibility as we speak. Manga is the largest comic industry in the world since 1984, with around 1.4 billion copies sold in that year. In the year 2000, manga had generated sales of 5.4 billion yen ($43 million) per annum.

In 2002 the first edition print of a single volume manga series **"One Piece"** was 2.6 million. *'Shonen Jump'* that reached its peak in 1995 at 6.5 million and readers reached approximately 20 million. "One Piece" was the top selling manga in the year 2015 (Obvious) which issued around 14,102,521. And it's still an ongoing series and no one can deny the fact that it's only growing in popularity.

By 21st century Manga series such as **"Edens Zero", "Jujutsu Kaisen",** "**Attack on Titan", "Chainsaw Man", "Demon Slayer"** and numerous series have climbed up the international Comic community and Japan

Comic Culture and it won't be fading any time soon. They are also the top selling manga of the year 2021 till mid of August.

2.2.10 WHY MANGA ARE BLACK AND WHITE?

Manga are unique and intriguing as they come in *'Black and White'* unlike any other comics we see. Why it is black and white? We will learn in the brief description below:

2.2.10.1　　COST EFFICIENCY

Basically, manga is Black and White due to the cost and work pressure of the mangakas (a person creating manga)**.** Black ink cost less, so they can save up more on their budget. As they have to publish manga on a weekly basis, they have little time in completing their work. And adding colour will just take most of their time. Although, lack of colour and low cost does not mean cheap manga product. The printing is in a pocket-size book and they release it every week for all range of ages. From elementary school kids to adults, which is why manga have a decent and affordable price for all. Manga are usually around 2.5 cm to 5 cm and are thicker than western comic books.

2.2.10.2　　TIME

As mentioned, that manga are published weekly, mangakas have a deadline for their work. So, most of them do their work daily and none have ever missed their deadline or extend the date. We can say they are very disciplined when it comes to their work.

They also designed manga for speed read at around 3.75 seconds per page much faster than any other comic or novel to be precise.

2.2.10.3　　TRADITION OF THE HISTORY OF MANGA

Printing black and white manga is also like a tradition to the Japanese artist. As we have learned that manga originates during the Edo Period and at that time, there was no colour printing. So, manga became the primary black and white comic, and it makes it stand out more than western comic or Manhwa. During the World War

II, many soldiers are fond of reading manga while on the battlefield. So, artist published their art in black and white so it could reach the soldiers swiftly.

2.2.10.4   CHOICE OF STYLE

Figure 10 : "Kozure Okami" 1970 (c) Kojima Goseki

Mangakas can show their art skills perfectly and in details even though they only draw in black and white. While others argue coloured comics are better artistically, but mangas proved that colourless comics also can stand out artistically. Even with no colour, they can bring out the needed vibe for the reader while reading their manga. Sometimes we see mangas in colour but usually, these coloured pages meant that the chapter has a significant role in the whole story line.

As for the visuals, mangakas mostly concentrate on well define art with less text compared to western comics. This makes the story longer than western comics and the actions are more refined, which takes the scene deeper and can last over 20 pages long. Stories like **"Kozure Okami" 1970** by **Kojima Goseki** were over 8,400 pages and 28 volumes.

Having no colour does not make the art lifeless, mangakas usually draw filters to create the mood while reading. Like heart shapes when in love, or bubbles or floral to lighten up the mood or to show one's emoticons. Yet again, we can say they are very talented as they can create all sorts of excitements and expression and the surroundings with just two simple colours.

2.2.10.5   DISADVANTAGES THROUGHOUT THE HISTORY OF MANGA

There are some disadvantages in colourless manga like identifying the gender of the character. Since artist cannot put colour in their panel, they have to use shades of black to show their tones and texture.

Not just the characters we find it hard to identify, but also the time of the day. The artists have to mention which time of the day it is as is it noon or night. Night is quite easy as there will be a moon or stars, but what about daytime? So, narration is very important in order to pinpoint all these small yet important details. Like the coloured artist who have to do colour testing for their comics, the mangakas also do the same for their coloured panels. But they mostly concentrate on their black and white panels rather than coloured.

Figure 11: FMA (c) Hiromu Arakawa

2.2.11 THE ART OF CLIFF HANGING

Another interesting part about manga is that the artist has perfected the leave-you-in-a-cliff-hanger style. This will make the readers want to read more and eagerly waiting for its release. Manga like **"Attack on Titan", "Full Metal Alchemist" and "My Hero Academia"** have the outstanding mangakas and cliff-hangers. Such an event makes the reader keen on the story and makes them want to come for more, which means more sales.

2.2.12 WHY ARE MANGA SO POPULAR?

Found in comic books, monthly magazines or graphic novels, manga have something for everyone, as we could have seen from the number of genres. **People of all ages spend billions of dollars on the comics every year so they could enjoy often complex plots with emotional depth**. The lengthy series, which can run from two volumes to as many as twenty, are meant to keep the readers' attention and make them want to come back for more, which they have been doing successfully for decades. People in Japan and in many other countries as well, seem to be **mesmerized by the distinct look of manga, the overt display of emotions that are often ridiculously exaggerated, the clean lines done in pen and ink, in style of the Japanese CALLIGRAPHY and painting**. At a young age, children are being given manga for both entertainment and education, and by habit they keep on reading comics from designated categories as they grow up as well. In a way, what is manga at its essence helps shape them as human beings and influence their characters, through **clever and well-designed stories on business, politics, history, relationships and life in general**, stories that very often carry **spiritual or philosophical messages** [4].

2.2.13 A THREAT TO THE INDUSTRY

In recent years, the industry has been suffering acutely due to **the piracy**. Affecting all media everywhere, Internet piracy is particularly endemic to manga. Many faithful fans started learning Japanese online, acquiring original publications, and then scanned, translated, edited and uploaded them online. With **scanlations** appearing sometimes mere hours after a new chapter are released in Japan, the practice is striking at the heart of manga and threatening its very existence. This is making it increasingly difficult for manga artists, or **mangaka***, to earn a living from their work.

2.2.14 THE LATEST TRENDS

Despite a beating that the manga market has suffered in the last decade, it has recently witnessed **a revival** and a steady expansion. The newest and the fastest-growing new market is **India**, with the explosive growth of conventions and fans that are passionate and even frantic. In an attempt to boost tourism, the newly formed **Japan Anime Tourism Association** will compile a travel route of relevant animation spots all over Japan to encourage visitors to seek out everyday places where famous "manga" characters are depicted. Given the popularity and volume of manga comics in the country, there are tens of thousands of such landmarks. Yet, the project will make an official list of 88 "sacred spots" for any fan's animation pilgrimage.[10]

Some of the most beloved manga comics published in 2016 include *Fruits Basket, Princess Jellyfish, Planetes, Inuyashiki, A Silent Voice* or *Your Lie in April*. Recently, **the growth of streaming anime** has been a pipeline of video content, rising the popularity of manga and supporting its sales. Meanwhile, the love for all-things-manga has been catered in various ways in Japan. All over the country, there are countless **manga kissaten**, or **manga cafés** that accommodate customers wanting to relax with a comic book. There are over 1,000 such cafés nationwide, and their manga collections are often greater than most libraries. Additionally, there are numerous museums, cosplay makeovers, and various entertainment facilities dedicated exclusively to manga. When it first reached non-Asian markets, it had a reputation of vulgarity, violence, and bad drawing. The international crowd disliked it as it seemed foreign to the Japanese traditional culture comprised of samurais, Confucian morality, Zen gardens or ikebanas. But what is manga today, emerged as **a by-product** of the phenomenon of forcing elitism upon the national culture, the so-called high culture that yet always coexisted with unbridled, and rebellious popular cultures of Japanese peasantry and townspeople who did not bother about morality and good taste. On the other hand, there is the growing acceptance of all kinds of **geek culture**, of which manga and anime are just one part. The genre is making its way into the accepted mainstream and not looked down upon any longer. Since the domination of AMERICAN CULTURAL PRODUCTS has been constant for several decades, the popularity of manga and anime can be seen as a good sign that the world is developing more balanced and tolerant practices. Currently, Japanese cultural products are **the only major alternative to the American cultural hegemony**.

2.3   HISTORY OF ANIME

Anime is the Japanese equivalent of animated media, a distinct form of animation in its unique Japanese-disseminated style often characterized by vibrant graphics, characters with exaggerated features, and imaginative themes. The origins of anime and its comic counterpart, mange, trace back to the production of Ukiyo-e woodblock prints during the Edo period. The widespread distribution of Ukiyo-e marked Japan's

Figure 12: Katsudō Shashin

earliest case of mass consumption, captivating a large audience through its beautified portrayal of mundane observations in life. Similar to its predecessor, the combination of anime's accessibility with its ability to provide pure pleasure and entertainment has historically attracted many fans nationwide. Consequently, the existence of anime is embedded in the daily lives of the Japanese and is primarily consumed as a means of escaping from the pressures of reality. In the contemporary era, the celebration of this Japanese animation style is an international phenomenon increasing in transnational circulation and production, anime has mom recently gained a lot of popularity and attention from a global audience. Mime is often used in the contemporary world to envision spaces, architecture, and cities without being restricted by the constraints of reality. It is powerful in its ability to construct and present a three-dimensional spatial experience to its viewers, whilst playing with notions of fantasy vs. reality. Consequently, venous film producers over time have used anima as a medium to communicate their desires and fears in response to the reality surrounding them.

°It may be that animation in general - and perhaps anise in particular - is the ideal artistic vehicle for expressing the hopes and nightmares of our uneasy contemporary world."

The history of anime in Japan can be traced back to the late 19th century. In fact, it was a French art movement called "Japonisme" that helped inspire Japanese artists and create some of the first examples of modern animation. However, it wasn't until World War II when Japan's government started promoting cartoons as a way to raise morale that the style really took off.

2.3.1   HOW DID ANIME START?

The first-ever Japanese animation in its most basic form is thought to have been created in 1906, but the legitimacy of this claim has been disputed by some. The short, animated film was called *Katsudō Shashin* depicts a young boy drawing the Japanese characters for *Katsudō Shashin.* It was made using fifty different frames, each of which was stenciled onto a strip of celluloid (a type of thermoplastic film). There

have been several claims that other films entered Japan around this time too, but none have been able to be fully verified.

While there were several projects that made it to screen in Japan after 1906, including the French animated film *Exploits De Feu Follet* by Emile Cohl in 1912. It wasn't until 1917 that the first commercial anime was officially produced and broadcasted in Japan (the one that *most* people agree to be the first, anyway). That anime was called *Dekobō Shingachō: Meian no Shippai,* but like most anime of the time the original copies did not stand the test of time - most of them were cut up and sold as individual frames or strips to collectors.

Figure 13: Lupin III: Castle Of Cagliostro

2.3.2   A TIMELINE OF ANIME

2.3.2.1 1920S – 1950S

Japanese filmmakers began experimenting with popular animation techniques in the early 20th century, using methods that were already established in European countries and the United States, and by the 1930s animation as a legitimate form of entertainment was well established. Despite the hard work of many talented artists anime still struggled to compete against foreign productions, especially in terms of budget and resources. Anime was still mainly produced using a cheaper form of animation known as "Cutout Animation", whereas more advanced (read: well-funded) studios were using "cel animation", which is faster and more advanced.

A key contributor to the success of anime is resourcefulness - when talented people are forced to work with limited or outdated resources, creativity often ensues. So, while anime struggled to compete globally with larger animation studios, artists spent time trying to make limited animation a positive thing, which contributed to the unique style of storytelling that sets anime apart today. Long, slow-motion shots, or stills, that used more of the budget than other parts of the project became synonymous with Japanese cartoons, and can still be seen in many famous works today.

An injection of government funding in exchange for educational shorts and propaganda films helped push the limits of what had previously been possible in Japan, even if that injection did come with a certain level of censorship. Pioneering animators like Mitsuyo Seo (*Sankichi no Kūchū Ryokō* – 1931, *ARI-CHAN* – 1941) and Kenzō Masaoka (Masaoka is responsible for an impressive collection of films made between 1927 and

1950, and trained other influential animators too) made fantastic progress thanks to their dedication and the backing of the government.

During this time Disney was proving to be a strong force in the world of animation, and the release of the 1937 film *Snow White and the Seven Dwarves* is thought to have had a sincere and deep influence on many Japanese animators, which leads us into the next few decades.

2.3.2.2 1950S – 1980S

Following WW2 in 1948, the very first modern anime production company came to fruition – TOEI. Founded by Kenzō Masaoka and Zenjirō Yamamoto, award-winning studio Toei is a behemoth in the anime industry. While there are many other fantastic studios that came into existence after it, Toei truly pushed animated shows to mainstream television in the 1960s, with heavy hitters like Gegege no Kitaro, Dragon Ball, Sailor Moon, Digimon, and One Piece (among many others). They even boast collaborations with some of the world's most renowned anime artists, like the legendary Hayao Miyazaki, Yoichi Kotabe, and Yasuji Mori.

As the styles and techniques of anime progressed over the preceding decades, so did anime's popularity, and the 1960s saw some of the first instances of Japanese animation being shown in other countries. Many of you reading this will have seen Astro Boy in one form or another, but what you might not know is that it was aired on NBC in 1963 after strong efforts by a man named Fred Ladd.

Unfortunately, this achievement was short-lived, as American audiences were not yet ready for anime in all its glory. The show received terrible ratings and did not complete its run on-air. This could be attributed to key differences between Japanese and western animation.

Figure 14: Original Speed Racer Anime
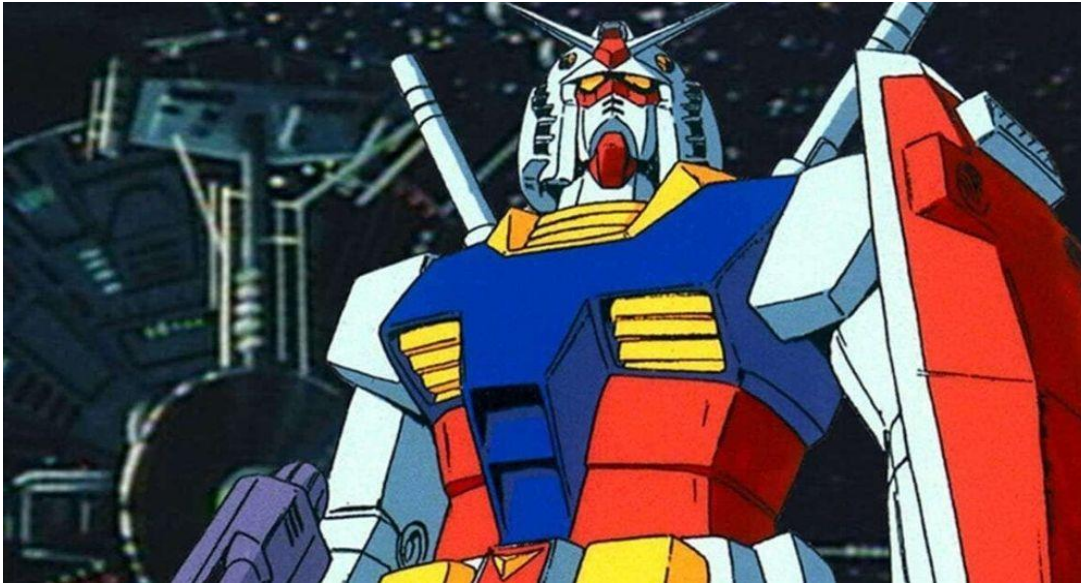
Figure 15: Gundam Anime

At the time, most cartoons in the west were of animals. Japanese cartoons however featured humans heavily, in crazy and often magical adventures. Research done at the time showed that western audiences felt uncomfortable seeing "human characters" in strange and unusual situations. Japanese animators were not fazed by this, partially due to the massive success of anime in Japan, and partially because they were eager to push the boundaries of storytelling in a way that made sense to them.

In the 1970s, television (both animated and live-action) grew in popularity in Japan in a major way, and many talented people working in the film industry migrated to TV, which hugely expanded the talent pool. Much like everywhere else in the world, the 70s became a time of experimentation of styles and content, and it's around this time that many modern-day fixtures of anime movies and shows were born.

Some of the most popular anime genres, like Mecha Anime, were created during this time, and similar styles began popping up all over the world. The giant robot theme is still very common in anime, manga, and gaming in Japan. In fact, in many of Japan's arcades, you can even play in a Gundam Pod as one of your favorite robots.

The 1980s were considered by many to be the golden age of anime, with many of the genre's most beloved titles being made during the decade. Dragonball, Captain Tsubasa, Akira – just a few of the titles that are synonymous with the success of anime both in Japan and overseas. Not only were there some truly iconic releases, but 1985 saw the creation of one of the most iconic studios too – Studio Ghibli.

After the massive success of Nausicaa of the Valley in 1984, renowned director Hayao Miyazaki (who worked under the wing of Toei Studios) and long-time colleague Isao Takahata (Pom Poko, Heidi Girl Of The Alps, Grave of the Fireflies – just a few of the incredible titles he's helmed through the years) began their very own studio, and went on to release two of the most successful anime movies to date – Laputa: Castle in the Sky,

and Kiki's Delivery Service – before the decade had even finished. The studio went on to release some of the most iconic projects of all time.

The birth of home video revolutionized film and television around the world, and Japan's love of technology only served to fuel the growth of experimental anime. Creators worked on projects and manga adaptations that went straight to video, allowing them to be more experimental with storylines and animation methods. It also allowed for more and more people overseas to access anime – the process was still difficult, but it was more accessible than it had been previously.

Incredibly devoted clubs took to trading and importing any content they could get their hands on. Even developers of the new Laser Disk format saw these devoted *otakus* as a great opportunity to expand, and they set up their own major distributors in Japan and the United States.

2.3.2.3 1990S – MODERN DAY

Needless to say, the passion and dedication of Japanese animators meant that by the start of the 90s Japan had an extensive catalog of anime. Both anime movies and series had loyal, devoted fans, and were firm fixtures of Japanese culture. The late 80s had given birth to a whole new wave of people – otaku (literally translated geek or nerd) – people who were devoted to their interest. Anime was even created with otaku in mind, leading to the creation of even more specific anime genres. For example, the creation of Dragonball Z, which sparked the martial arts, the superhero genre, and went on to become one of the most popular anime worldwide.

There was also an increased interest in anime aimed entirely at adults (we're not talking about X-rated anime, which is a sub-genre entirely on its own) – these films and series had high amounts of sexuality and violence, making them far too adult to be seen by children. Censorship boards in Japan began to clamp down on what could be shown and when on Japanese television.

Neon Genesis Evangelion, The Ghost in the Shell, Cowboy Bebop – not only did these projects have a limited (and late-night) run on TV in Japan, they caused quite a stir overseas too. The Ghost in the Shell was actually a huge inspiration for the creators of The Matrix film series, showing how much of an influence anime had on western media at the time.

Figure 16: Neon Genesis Evangelion

A huge contributor to that reach was the fact that DVD technology had become commonplace at the start of the 2000s, making it much easier to get copies of popular anime with both subbed and dubbed versions on the same disc. And of course, the internet was starting to become a household commodity around this time too, meaning otaku all over the world could share in anime that would have taken them months to obtain previously. Not only that, but people were able to discover titles that had perhaps been a little more niche or harder to discover if you lived anywhere outside Japan.

This is not to undermine the level of success anime had already had up to this point in Japan and Asia, visibility in western markets isn't the gauge by which we should determine whether something was successful or not. As you can see, anime was already a thriving market by the time it became "well-known" in the West.

But these advancements are worth discussing, because they're likely some of the catalysts that led to you reading this article at all. What was once seen as a "niche" interest for dorks and weirdos who frequented comic book shops, quickly became widely accepted as an impressive form of media.

And then come have my generation, who grew up watching shows like Pokémon, Dragonball Z, and Sailor Moon, and didn't need any convincing that anime is amazing once we realized that's what we'd grown up watching anyway. That, along with the fact that it's awesome, is likely *just one* of the reasons films like *Your Name* have had such success overseas, and why providers like Netflix can't create titles as fast as they're being watched.

Not that they need to – Japan's animation studios are as prolific as ever, with no signs of slowing down. Streaming services like Netflix have added popular series to meet growing demand, but services like Crunchyroll have been meeting those needs for over a decade. And so, the already popular movement of

anime keeps on growing, with *many* new titles released every year. Even in the newest anime, though, you can see the hard work of animators from decades before.

Some of their styles and classic anime tropes can still be found throughout different genres, and some of their most prolific animators are still going strong (Miyazaki, Matsumoto, Minami, etc). Japan's love of anime is as strong as ever, and my only hope is that the west realizes why that is, and brings more amazing titles to cinemas over here (I recently saw Weathering with You as a cinematic release in the U.K., and it was wonderful).

2.3.3 MANGA'S INFLUENCE ON ANIME

MANGA has had an enormous effect on the success of anime, in part because while animators were perfecting their own styles, so too were manga artists, and they didn't have the confines of technology to restrict them. Art has been a huge part of Japanese culture for centuries, and it's said that manga originated from scrolls dating all the way back to the 12th century, perhaps even influencing Japan's right-to-left style of reading.

Manga is unique in many ways, but one pretty important one is the fact that manga has been created for every genre and person you could imagine – men, women, boys, girls, magic, adventure, robots, martial arts, the most kawaii of characters you could think of, there's no end to the number of tales being told by these talented storytellers. And they are nothing but dedicated, with some manga series having *hundreds* of volumes.

As you can see, there's plenty of material to draw from, and that's precisely what many intelligent animators did. So many of the most popular anime series started out as manga: Attack on Titan, One Piece, One Punch Man, even Astro Boy started out as manga!

3 ARCHITECTURE IN MANGA

The core principles of Western architecture are based on Vitruvius' ideas about the importance of "utility, firmness, and beauty" in architecture. To achieve the standards of utility, a building's spaces must be designed in such a way that they encourage both the building's internal functional usage and the site. The firmness of a structure is determined by how well it rests on its foundation and how well it uses building materials. This helps the structure to withstand varied applied forces over time, such as wind, rain, and any weight bearing stresses. The definition of beauty that Vitruvius alludes to is the appearance of a building. It must be visually appealing, have intellectually defined "good taste," and adhere to proportion and symmetry standards. "Commodity, firmness, and joy" are Sir Henry Wotten's interpretations of these three construction elements.

These three fundamental criteria serve as the ultimate criterion for determining whether a design is good architecture. "The Ultimate tests of architecture are these," writes Leland Roth. First, does a structure support and reinforce its functional usage; does it complement its surroundings? Second, is it well-constructed and will its materials withstand the elements? But, more importantly, does the structure appeal to the visual senses; does it deliver a full measure of satisfaction and enjoyment—does it delight? " We can see that there is a lot more to architecture than the basic definition refers to in Roth's last queries. A building's other attributes must serve its role and setting, in addition to being functional.

Sir Henry Wotten's exchange of delight for beauty actually is more relevant to our time. Beauty is a loaded word that has caused much debate because it relies on a person's preference or taste. In Vitruvius's time, proportion and symmetry was important and was used to define beauty. This is substantially different from what it is today. Most people's thoughts on beauty no longer fits this definition even though it still plays an important part in understanding the design and meaning of architecture. Delight is a much better word because it can cover a broader range of senses. It still has some restrictions on it to a person's preference, but it doesn't only rely on the visual sense. People may find delight in what they hear or feel, or the way they move through a space. Also, an activity supported by a space may make it a delight. Therefore, the atmosphere and setting that architecture provides can cause delight. These simple definitions of architecture form a historical basis for understanding but are not the whole of architecture. Architecture occurs within an already present landscape or cityscape and its excellence must be evaluated in terms of how it interacts with that environment.

3.1   MULTI-SENSORY WORLD

Architecture is not just about its form, function and beauty. It is about its relationship to the cityscape or landscape. It is about its use and function. Architecture is about what occurs in that space and how people move around it, in it, and through it. It is about its meaning to the inhabitants who live there throughout history and the present. It is also how it is perceived by the individual mind and what feelings and emotions are projected back on to it. Architecture is also about what scents, noises, tastes and climatic temperatures are connected to it. Rudolf Arnheim shares this view of architecture by stating "It is an experience of the senses of sight and sound, of touch and heat and cold and muscular behaviour, as well as the resultant of thoughts and strivings."

Many people forget about the multi-sensory aspects of architecture when they are designing. Even when it is taught to architectural students, as they struggle to make deadlines, they forget about architecture's intimate connection to the diverse stimuli. Therefore, they tend to focus only on the form. What makes architecture different from other arts is its function. However, many times function is muffled by this emphasis put on the form. But architecture is about so much more. Architecture does not exist in a static world. The things that happen in and around architecture affect its use and its perception of meaning. We constantly move around it and in it. We have the opportunity to smell the sweet aromas of flowers or savory food. We also have the

opportunity to detect odors that are not so pleasant associated with an architectural site, such as, automotive exhaust, the stench of garbage, or many other noxious odors. We hear sounds from the street, possibly music playing on the radio, or we detect silence. If a building is a bakery, we associate the scent of freshly baked bread, donuts, or cookies with it. We can also associate the taste of the pastries to that building from when we stopped to buy what smelled so good. Also, if we see

Figure 17 View panels from right to left (a) The Oshinbo: Ramen & Gyoza manga series uses motion lines, sound effects and puffs of steam to portray what a noodle shops kitchen atmosphere is like. (b) In the same series, but different episode, motion lines and sound effects contrasts the different styles of two chefs preparing food in a competition.

a picture of a place, for example the Pismo Beach Pier, we can remember the scent of the salty sea air mixed with the smell of fish. We can recall the fish and chips we ate and the seagulls we heard calling. We remember the sticky, damp, salty air on our skin and the wind tangling our hair. The mind is always making associations and memories of places and spaces whether it is a single building, a city, or a forest. It isn't just the spaces themselves but what is happening at the time. Kevin Lynch states, "We are continuously engaged in the attempt to organize our surroundings, to structure and identify them." So it is easy to see why a dominant sound or smell could impact our impression and memory of an area.

In architecture we must be sensitive to multi-sensory cues that lead inhabitants to places, be it in a large building like a hospital or in an even larger scale like a city, being able to pinpoint the multi-sensory clues can help define those areas. Kevin Lynch pointed out that for some districts in a city, noise was sometimes an indicator to people that they were in the right place. Even the feeling of being lost was used by others to tell if they had arrived to their destination. Also "concentration of special use or activity along a street may give it prominence in the minds of the observers."

Figure 18 The Ghost in the Shell manga series panel sequence portrays a future market atmosphere. The artist uses the dress and appearance of the people, crowd noises, music, passing vehicle noises, and calls of market sellers to help emphasize the areas lower class character with the rundown look of the street shops.

Lynch continued to say, "Sounds and smells sometimes reinforce visual landmarks." Increasingly, an important question for architects to ask is: How could these important olfactory and auditory cues (stimuli) be included in architectural drawings? In traditional architecture, there is a disconnect between

Figure 19 View panels from right to left. Oshinbo: Ramen & Goyza manga series pages (a) and (b) use sound effects in this sequence to indicate to the reader that there is music being played somewhere near by. The campers follow the sounds, which leads them to a town's performance hall.

the architecture's multi-sensory qualities and its traditional architectural drawings. Manga, on the other hand, has the visual language to express these multi-sensory qualities that play an important part in architecture and brings architectural designs to life. Through Manga, the viewer or reader can experience noise, scents, and emotional states.

If architects can tap into these associations and memories with a manga-formatted presentation, they can help create an emotional response or buy in from the client. Also, those associations and memories that are not easily accessed or were forgotten can be renewed in the same way manga can recreate experiences. Architects can also show the potential of an architectural design to capture a targeted atmosphere or a new experience that no one has thought about before. In an unknown like this, it is important to show the invisible qualities of sound, smell, and taste to give a sense of how the space my feel like

3.2 SPACE-TIME

In order to experience a multi-sensory world, time is an important factor in architecture. Francis Ching explains that experiencing architecture is done through "movement in space-time." "Sensory perception and recognition of physical elements" are naturally included in the space-time experience. According to Ching, our perceptions of a space changes as we move around and through urban or architectural space. Our "approach and departure," "entry and egress," the "functioning of and activities within spaces", and the "movement through the order of spaces" are all included, by Ching, as being a part of experiencing architecture through time and space. Our memory of spaces is also determined by the sequences in time as we go through or by them. Walking down a street one-way usually does not look the same if it were walked down from the opposite direction. Also, the speed that a person goes through or by spaces affects the perception of them. Even the "qualities of light, colour, texture, view, and sound" are included in this category. As was talked about earlier, in the manga section, our senses have a connection with time. For example, sound can 't exists without time, it takes time to breathe in and smell something, light quality changes throughout the day and we can see motion, which is also imbedded in time.
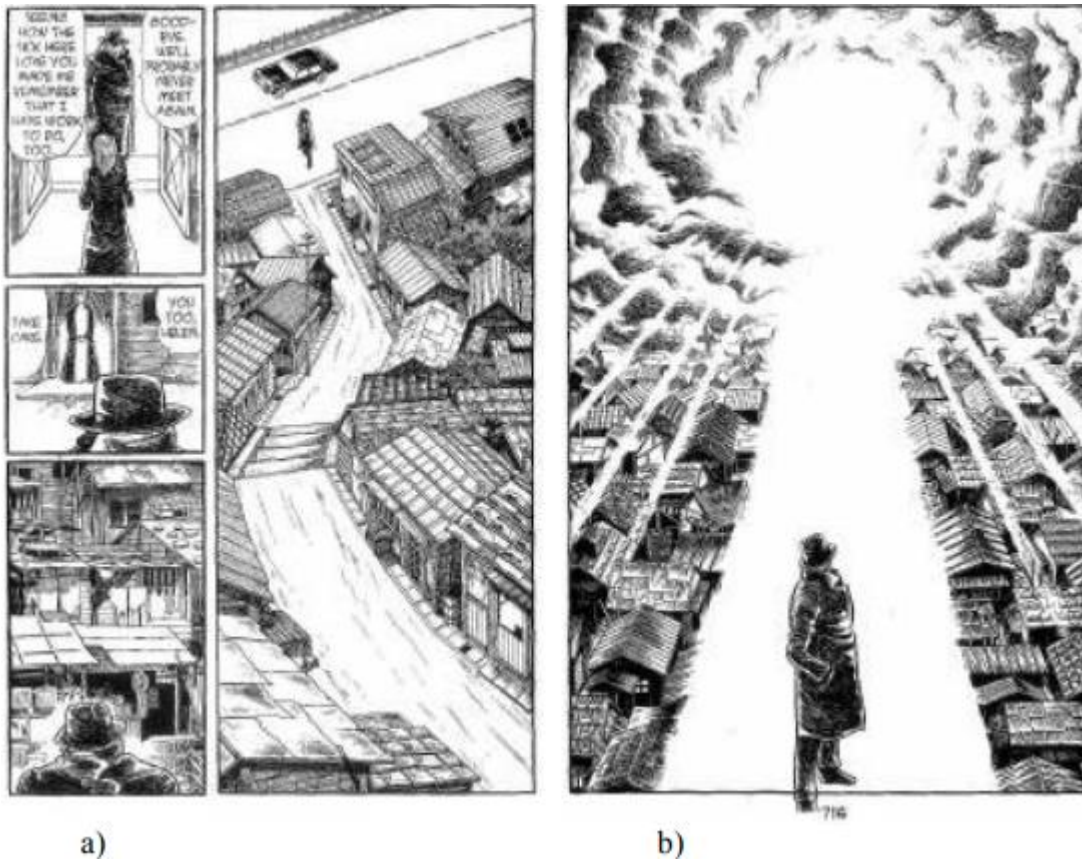
Figure 20 View panels from left to right. From this sequence, it is seen that Dr. Osanai emotional state is up lifted and is indicated by the way the light is shining from the direction of the church. It is a symbol of his enlightened state.
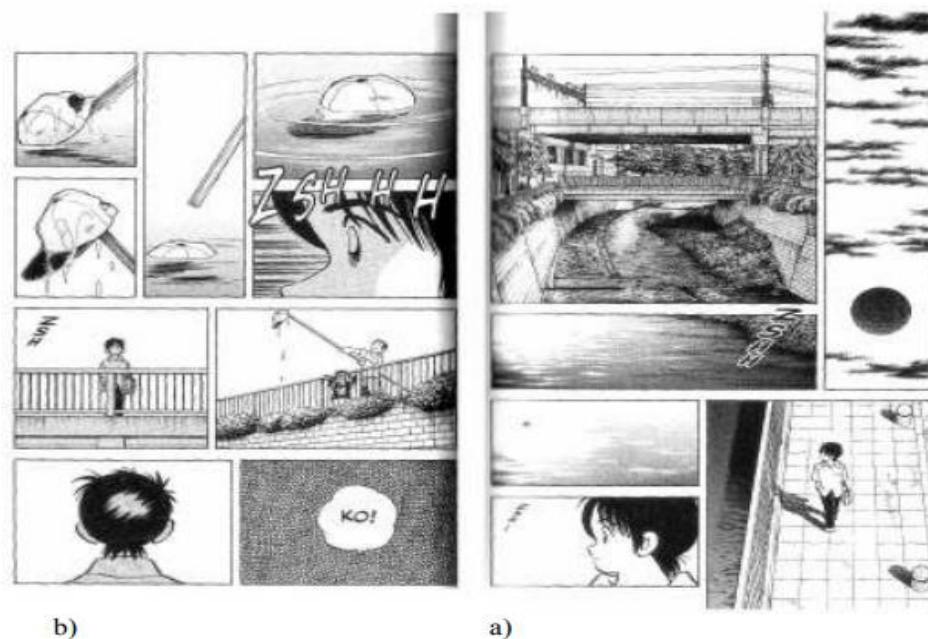
Figure 21 View panels from right to left. Ko is remembering a time when his favourite hat fell into the canal near his home. This demonstrates the connection between memory of experiences and the built environment.

This movement in space-time is a significant similarity shared by manga and architecture. As was mentioned in the comic and manga section, time in comics must be perceived spatially. Film is another medium that Juhani Pallasmaa claims to be the closest art form to represent architecture and says, "Architecture exists, like cinema, in the dimension of time and movement." Manga is similar to film in its presentation of time and movement, however these two elements, in manga, are based on space. So, manga more closely represents architecture than film in the experience of movement in space over time, because film cannot exist in this space-time experience since it occupies the same space; the screen it is projected onto. It can then be said that architecture exists, like manga, in the dimension of space-time and movement.
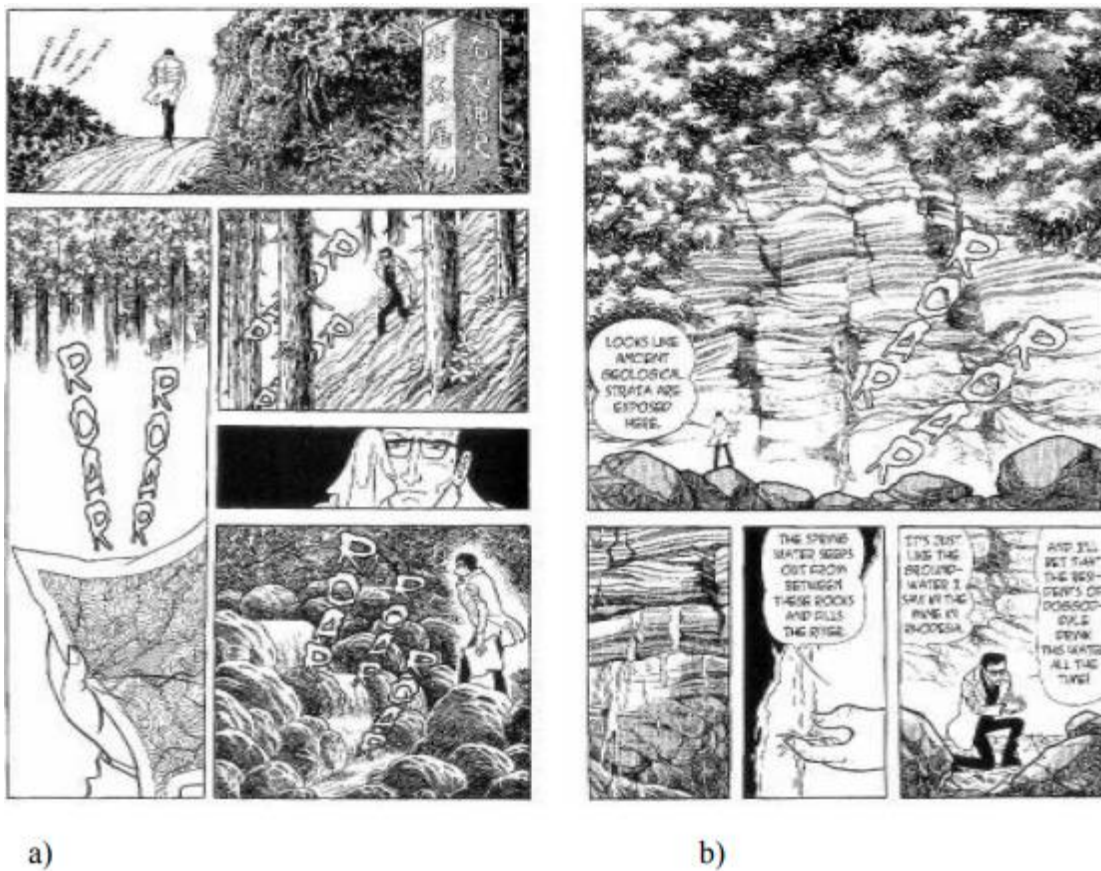
Figure 22 View panels from left to right. The Ode to Kirihito pages (a) and (b) shows Dr. Urabe navigating the landscape while hearing the sound of rushing water. His map and the sound lead him to where he wants to go. Dr. Urabe's cartoon style character also contrasts with the natural and realistically drawn landscape creating the "masking" effect.

Every component in manga has some kind of relationship with space-time due to the nature of comics where time is expressed spatially. However, since the experience of architecture is achieved through movement in space over time, motion, as a component of time in manga, has the key relationship to architectural space-time. This in turn, makes panel transitions extremely important to space-time because of the motion that happens in-between panels. It then leads to saying that aspect-to-aspect and moment-to-moment panel transitions are the most important, out of all the transitions, to architectural space time due to the way they manipulate time. And it finally singles out, aspect-to-aspect panel transitions as having the chief relationship with space-time in architecture, because of its focus on establishing the mood and atmosphere of space-time experience.

3.3   EXPERIENTIAL AND LIVED SPACE

It is not just enough to experience the physical materials of architecture. Experiencing architecture is actually the integration of both the physical and mental world. This concept is embodied by the term lived space by Pallasmaa. "Lived space is always the combination of external space and inner mental space, actuality and mental projection. In experiencing lived space, memory and dream, fear and desire, value and meaning, fuse with the actual perception." This statement opens another dimension to experiencing the built environment; that of a unique individual perspective.

Not everyone experiences architecture the same way because of each person's differing mental states, the time of day and the historical occurrences that also affect their experience. For example, when we catch sight of a courthouse, we could be impressed by its architecture if it is built in the bulky monumental style. It looks strong and powerful, and we feel confident. On the other hand, this same courthouse could look menacing and cause someone to feel anxiety who is being accused of a crime. During the day, a park may look very cheerful and inviting, but at night it could look abandoned and lonely. The challenge is: how can architects convey these experiential aspects of the architectural space in their drawings or presentations? Manga can do this through its aspect of narrative.
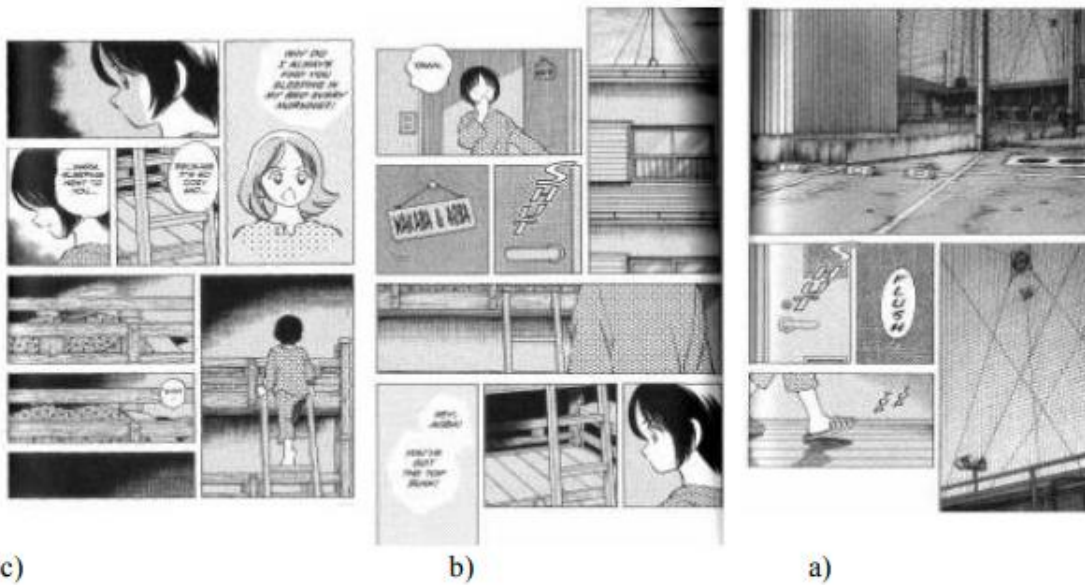
Figure 23 View panels from right to left. (a), (b), and (c) shows a scene where the dark room and bunk beds bring up a memory of her dead sister, Wakaba. This demonstrates the connection between memory, emotion, and space.

Narrative in architecture has gotten a lot of attention lately because more and more architectural professionals and professors are beginning to understand its essential link to experiencing space. Sophia Psarra writes, "Narrative is often seen as a form of representation bound with sequence, space and time. But it is also regarded 'as structure, a particular way of combining parts to make a whole' or as narration, as the process or 'the activity of selecting, arranging and rendering story material in order to achieve 81 specific time-bound effects on a perceiver.'" Psarra continues to say that there are two types of narratives in architecture, one that involves the "conceptual structure," and one that involves "perceptual experience."

4   ARCHITECTURE IN ANIME

One of the most important aspects of storytelling is knowing how to use setting. The location is where our stories unfold, which means it's important to see how they affect and are affected by the characters who interact in them. A great way to define the atmosphere of a setting is through architecture.

Figure 24 : Attack on titan, Eren's House

Figure 25 : Jinrui wa suitai shimashita background

Architecture includes a wide array of topics to study, from understanding the origins of Baroque to the rise and fall of Art Deco. But in film and anime, all that information and history behind a building's design can be simplified into a single frame. That is a form of narrative in and of itself. So, how can architecture contribute to the telling of a story?
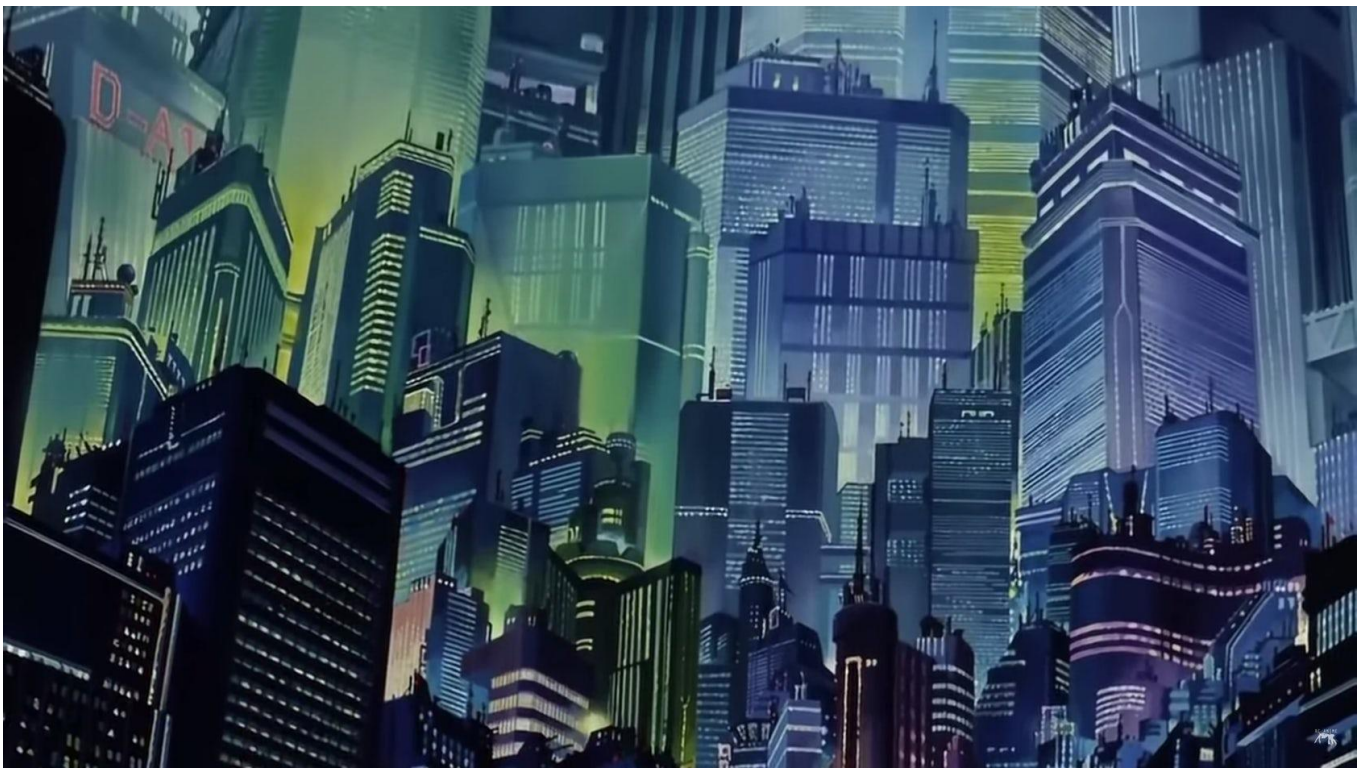
Figure 26 : Ghost in the shell 1995 city

The first way is, of course, to differentiate between locations. When an anime takes place in multiple locations, it's important for the audience to know the difference between each spot. If you're moving from city to city, that's usually easy. If the city is real, people normally recognize the architecture there. For example, London has the Tube and Westminster, while Tokyo has the Tokyo Tower and the Rainbow Bridge. But the real challenge is showing us different places in the same location. How do you make each spot unique?

In "Aria the Animation," the show mainly takes place in Neo Venezia (Venice), and each spot in the city serves as a location for a different kind of story. St. Mark's Square is vast, allowing Akari to meet new people and gather with large groups there, while the headquarters for Aria Company is small and secluded from the city, acting as Akari's haven. Also, a lot of the buildings in Aria are white, which not only matches the uniforms of the undines but also reflects nicely against the blue sky

Figure 28 : Real-world places are portrayed in many anime epics, including London ...

Figure 27 : Tokyo Guilty Town City

and sea, creating a heavenly aesthetic.

Figure 30 : Real-world places are portrayed in many anime epics, including London ...

Figure 29 : The setting can employ gloomy industrial aesthetics

This leads us to our second point: atmosphere. The location can range from an eerie, old rusting town to a glamorous, clean and modern city, and it's the buildings in these places that define the setting's overall atmosphere. Sure, if you want a dark and bleak environment, you could easily just apply a cool and depressing colour palette. But in "Aku no Hana," the wear and tear of the town buildings really serves to enhance the desolate feeling within it.

Figure 31 : A dream-like vision of Venice in "Aria the Animation.

Figure 32 : Concrete supports for a highway that was never finished hint at the economic struggles of the city in "Nagi no Asukara."

Figure 33 : The architectural language of a high-tech future.
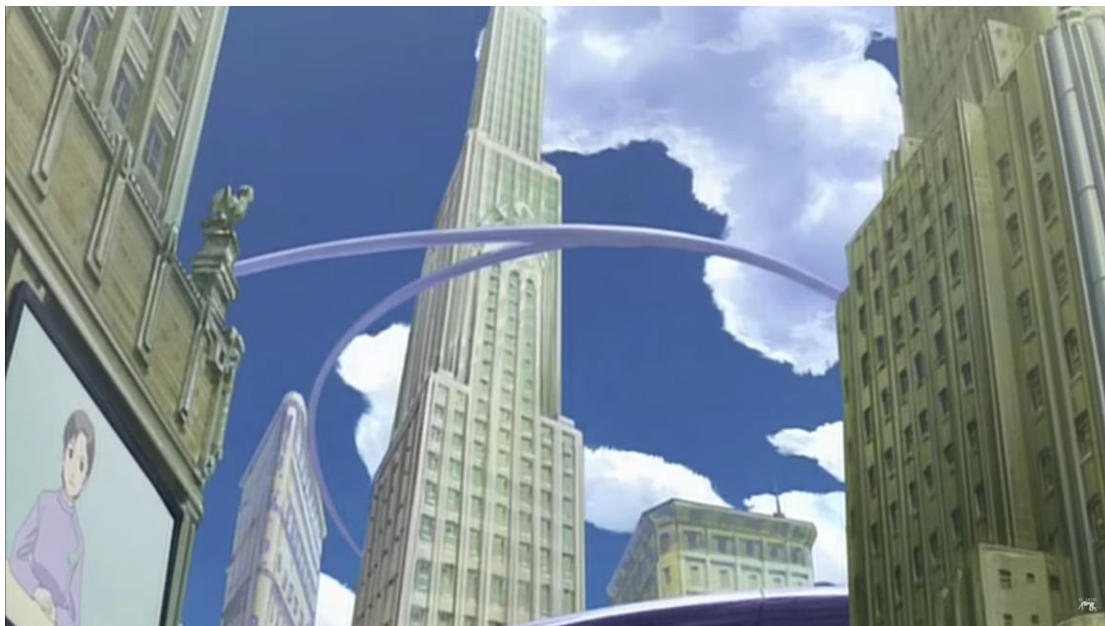
Figure 34 : Architecture is harnessed to paint pictures of both utopian and dystopian worlds in different anime movies.

A more subtle version of this example can be seen in "Nagi no Asukara," where pillars of an unfinished highway are shown as a motif throughout the show to display NagiAsu's society at a standstill. This is something architecture is really good at: establishing a social and political status, without ever needing the characters to tell us up front. Just by how a city is designed, we can tell if the society is chaotic, totalitarian or, of course, dystopian.

Last is the relationship between architecture and character. Most anime keeps it simple, giving the main character a single place to be emotionally attached to throughout the show, whether it be one building or an entire town. Normally, the way in which that location is designed is mirrored by the character's personality.

Figure 35 : Anime futuristic building

Figure 37 : The dull colour palette of "Gangsta" fails to enrich the viewer experience.

The use of a large open space to suggest a character's freedom or a character's loneliness or enclosing an entire city to both protect and inhibit our characters. It's also important to see how a bad display of architecture can negatively affect a show. For example, "Gangsta" tries to give it setting a bleak look. But instead, the anonymous designs make the setting less dejected and more boring — especially when the characters get to do nothing with it.

Kunihiko Ikuhara is a visual genius, and his talents include a knowledgeable use of architecture. Everything his works, from using a landmark to designate a city to inhibiting the characters with enclosures.

Ikuhara is able to tell an entire story just through how he uses architecture.

Want to show the progression of a family arc? Then introduce them living together in a colourful shack and by the end of the series have the shack look like this. Just by seeing the before and after, nothing else has to be said for us to get a good idea of what's happened.

Figure 38 : ... or to send mixed messages of protection and imprisonment.

Figure 39 : Before and after: the Takakura Family's shack

The shack shows that the Takakuras are poor, as opposed to Masako's baroque mansion that suggests she inherited old money. This in turn contrasts with Yuri's modern

Figure 40 : The arc   *Figure 41 : Ikuhara's "Adolescence of Utena" features perpetually moving walkways ...*

condo, earned by new money. We can inherently gather all these details about the characters by just seeing where they live.

However, nothing else by Ikuhara shows more interesting uses of architecture than

Figure 43 : ... while the environment in which Utena chases Himemiya sparks confusion.

"Adolescence of Utena," from the constantly moving school buildings, to old ruins to a massive castle with wheels.
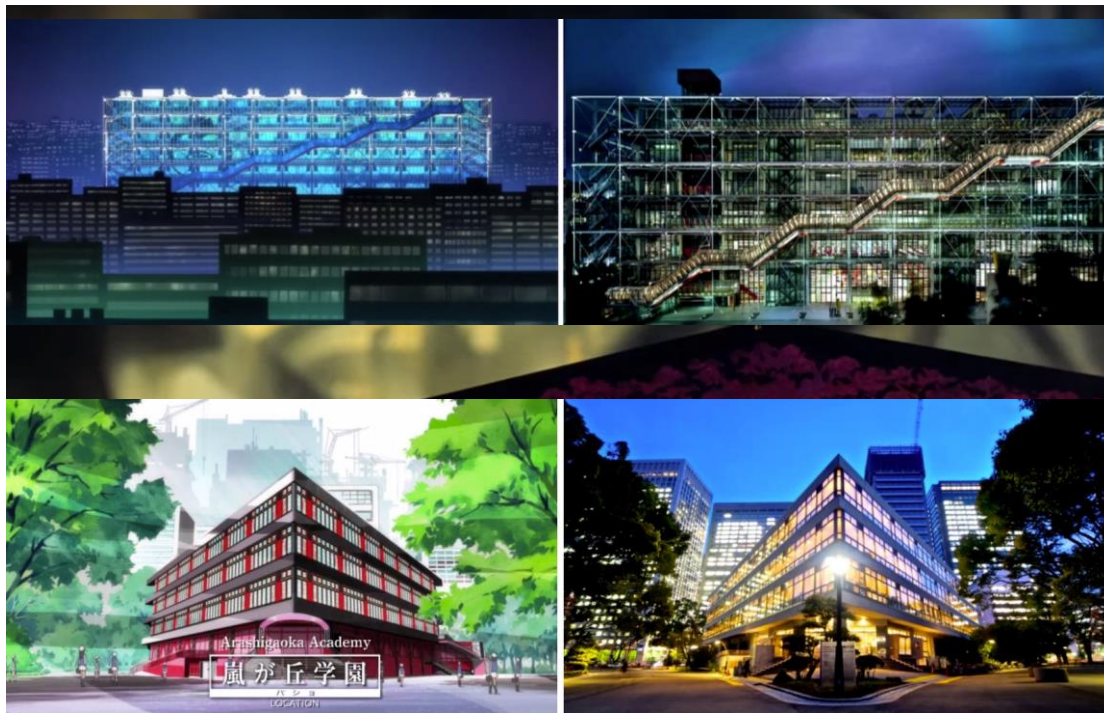
Each use of a structure holds information that enhances Utena's story, like Himemiya's secluded rose garden or the staircases of the school acting as a labyrinth that entraps the students. We can look at the moment where

Utena chases after Himemiya — with each cut, she ends up farther and farther away — and be able to understand the situation.

This film alone offers more study material than multiple shows put together when it comes to using the setting as a narrative.

Figure 46 : Many of Kunihiko Ikuhara's sets are based on real-world locations, like this school in "Yuri
Figure 47 : ... and this hospital in "Penguindrum," inspired by a particularly distinctive museum in Paris.
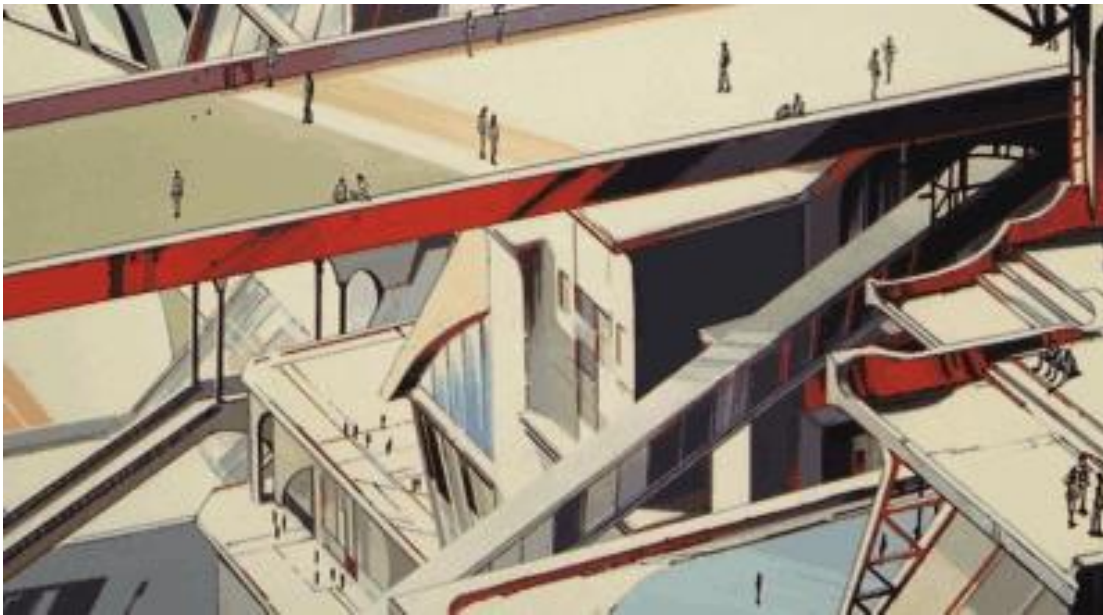
Ikuhara has already influenced a number of anime including "Ouran," "Soul Eater," "Lupin III" and "Maria Holic."

What's also interesting about his work is that he likes to use real locations as references: The school in "Yuri Kuma" is actually based off of a real-world library, and the hospital in "Penguindrum" is taken from a real building in Paris — the iconic Pompidou Center by Renzo Piano and Richard Rogers.

Figure 48 : Yurikuma arashi school

It's in Ikuhara's work where these real locations get altered to complement the story in interesting ways, because dialogue isn't the only way you can tell a story. You can say just as much with something as simple as the design of a building. Once you know how this method works, you can begin to do interesting things with your settings.
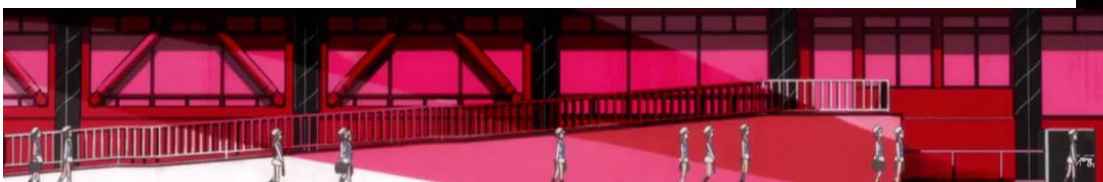
It's all a matter of who's the architect.
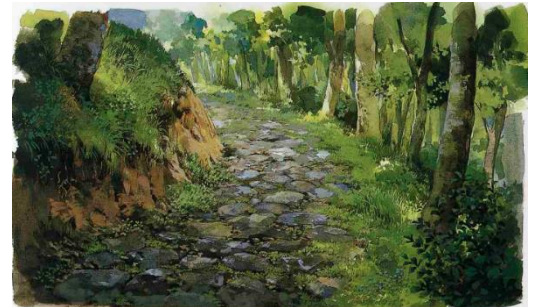
5 CASE STUDIES

5.1 ARCHITECTURE IN "SPIRITED AWAY" 2001

Spirited Away is a 2001 Japanese animated fantasy film written and directed by Hayao Miyazaki, animated by Studio Ghibli.

Spirited Away, won an Academy Award. Since then, the demand for anime has dramatically increased. The director of Spirited Away, Hayao Miyazaki, is accepted as anime's leading artist.

Spirited Away tells the story of Chihiro Ogino (Hiiragi), a ten-year-old girl who, while moving to a new neighbourhood, enters the world of Kami (spirits of Japanese Shinto folklore).[8] After her parents are turned into pigs by the witch Yubaba (Natsuki), Chihiro takes a job working in Yubaba's bathhouse to find a way to free herself and her parents and return to the human world.

WAY TO WOODS

The bathhouse's exterior was said to be modeled after a few different onsen in Japan, but the most well-known source of inspiration is Dōgo Onsen in Ehime Prefecture.
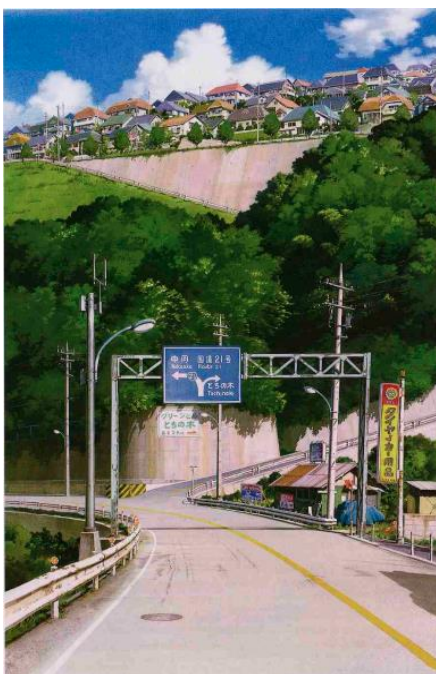
Figure 52 The road inside the forest that Chihiro's family wanders into
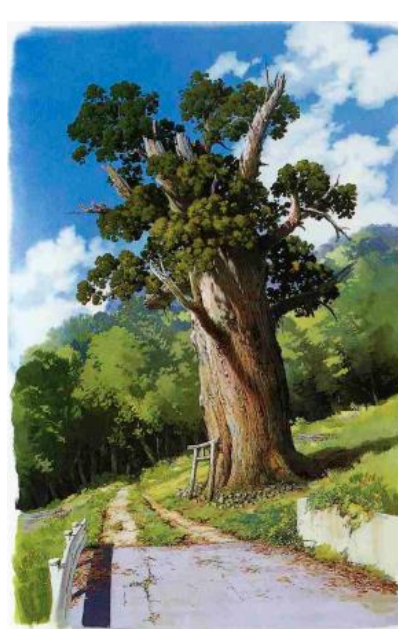
Figure 51 Chihiro's family enters the deep forest. The road turns to stone pavement.

Figure 49: new house, note the on the quarried mou

Figure 50 : Ancient tree

Figure 53 : The wide-open space inside the tunnel Chihiro's family enters, The building resembles an abandoned train station. A bright ray of sun pours in through the stained-glass window
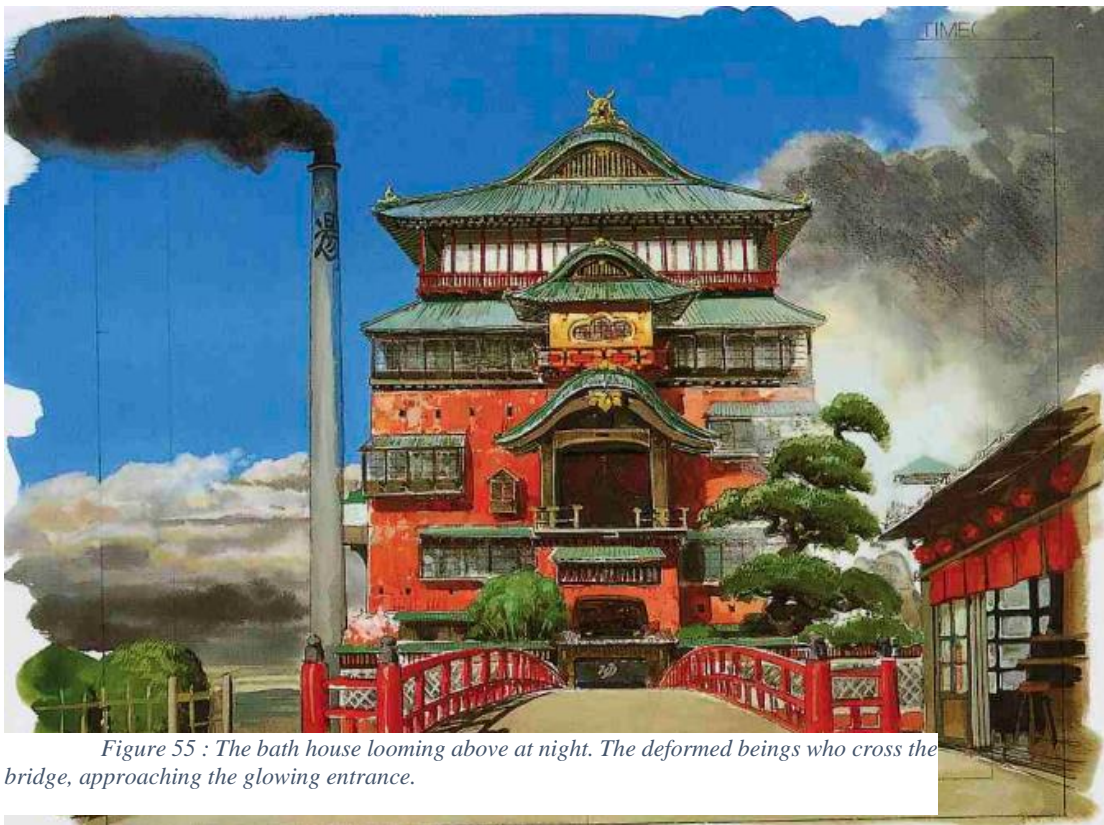
Figure 55 : The bath house looming above at night. The deformed beings who cross the bridge, approaching the glowing entrance.

Figure 54 : The gigantic bath house soaring above the vermilion-red bridge, bathed in the west sunlight. The chimney emits black smoke while steam rises on the right.
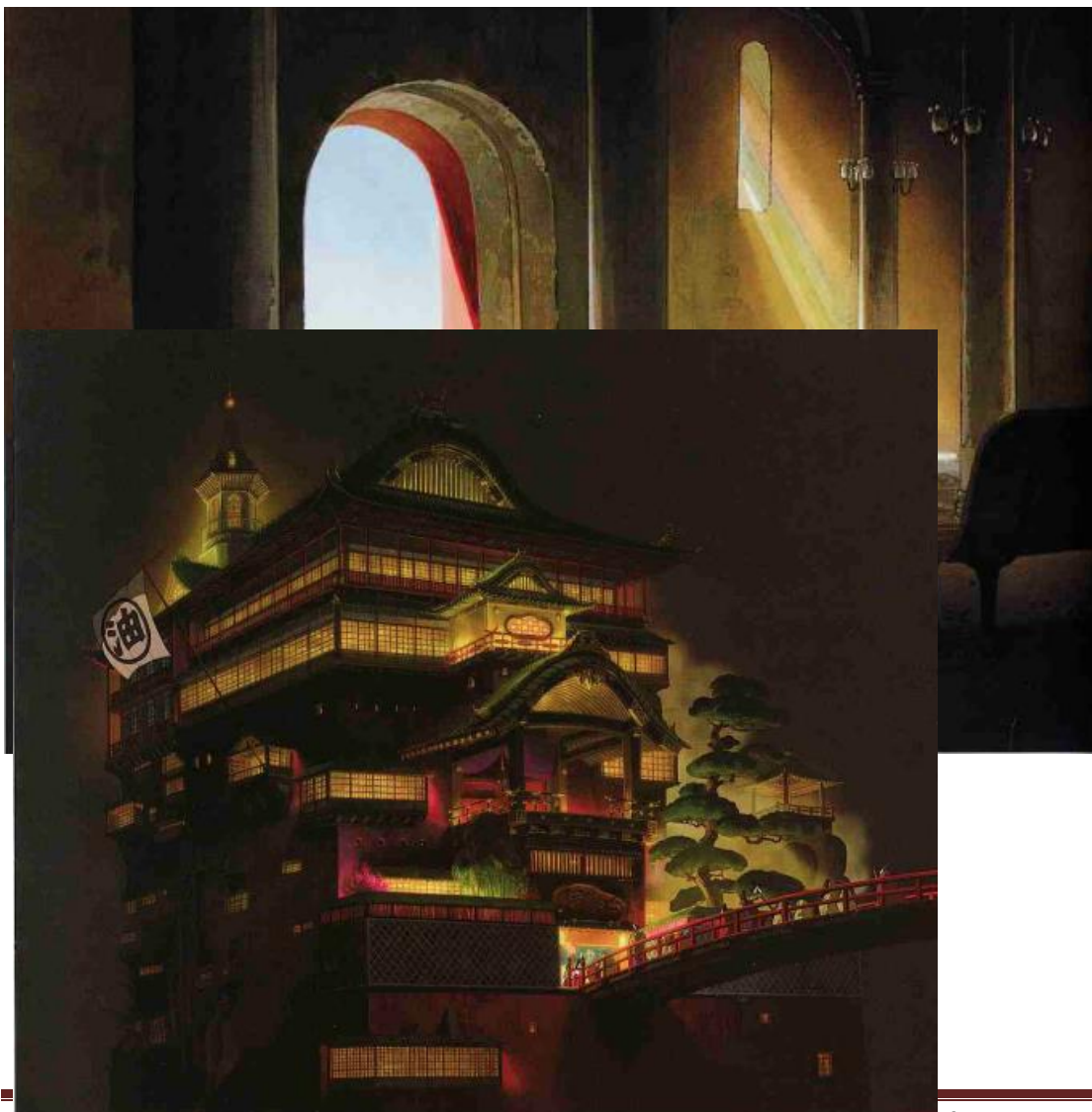
Kamaji, the old man who operated the boiler room. But the boiler rooms where Kamaji worked wasn't modeled after an actual boiler room – it was actually inspired by the stationary store Takei Sanshodo in the Edo-Tokyo Open Air Architectural Museum in Tokyo. Apart from the iconic wooden walls of shelves, many other parts of the
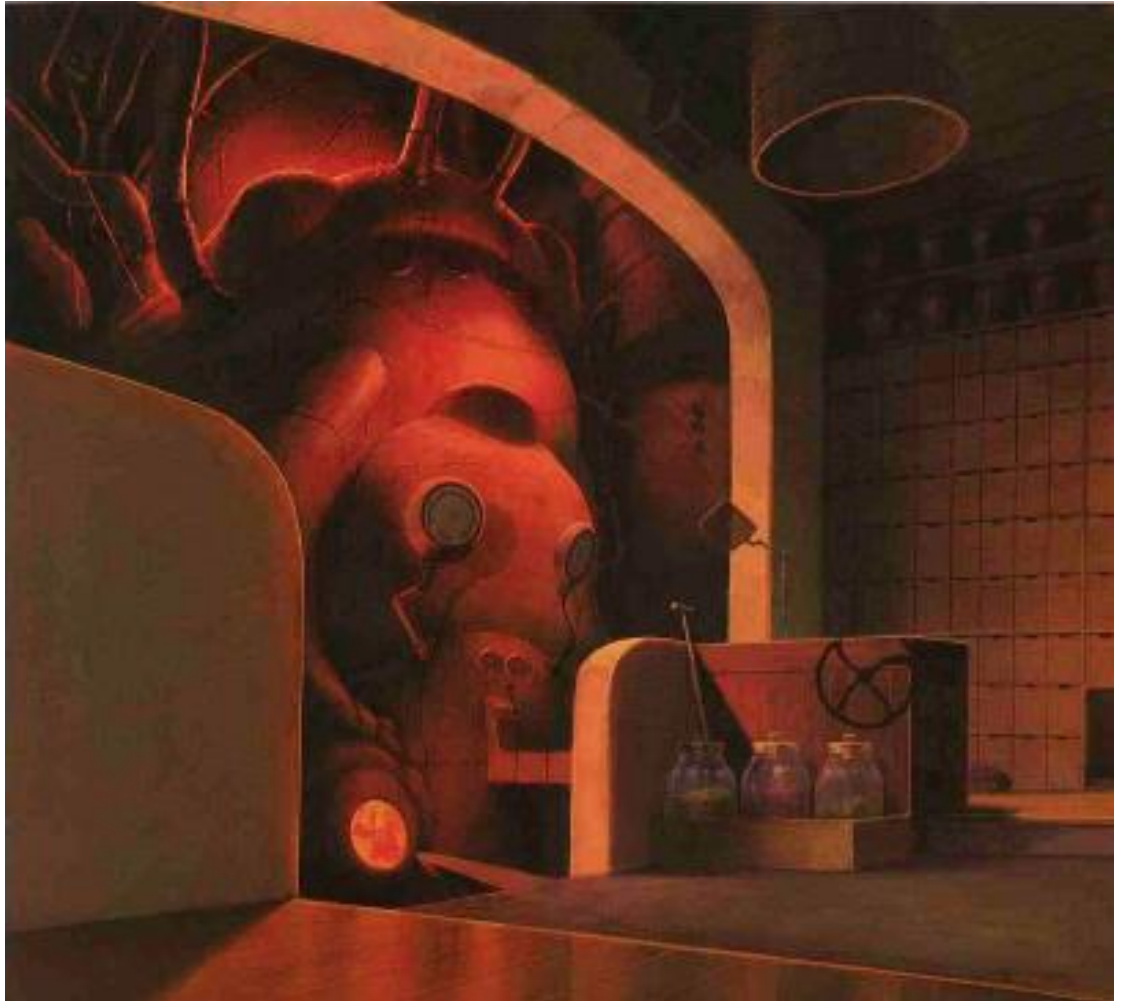
Figure 56 : A bright room beyond the dark passage. The boiler room spits out dark flames as it roars.

Spirited Away bathhouse were inspired by the interiors of this museum.

A Mixture of Various Architectural Styles

The bath house, had a mixture of various architectural styles. Viewers might feel nostalgic when they see the brick roofs and black, lacquered wooden columns, but these images are also based on the director's personal experience. But the night scene where Haku helps Chihiro was based on the atmosphere of my own hometown.

The bath house itself is based on an inn at Dogo Hot Springs in Shikoku where we went for a company vacation. Parts of it are also based on Meguro Gajo-en pri-vate park* (see editorial note, below) and the Nikko Toshogu shrine. Also based certain sections on fea-tures of the Edo-Tokyo Open Air Architectural Museum in Koganei•shi, where studied the restored buildings from various periods. For example, Kamaji's boiler room and herb drawers were based on this research. The flower patterns painted on the ceiling and sliding doors were based on real paintings in Nijo Castle. We would fill in any parts missing in the director's layout drawings.

Figure 58 : THE BIG BATH

All kinds of spirits bathe here.

1: Ushioni pampered by the Yuna.

2: Procession of Otori. Tour guests.

3: Ushioni wearing bath house robes.

4: Chihiro and the Daikon Radish Spirit.

5: The atrium viewed from below. (background)

6: Entire view of the bathing quarters. which consist of numerous small baths.

Figure 57 : The centre of the bath house is an atrium. The elevator rises from the dark basement floor.
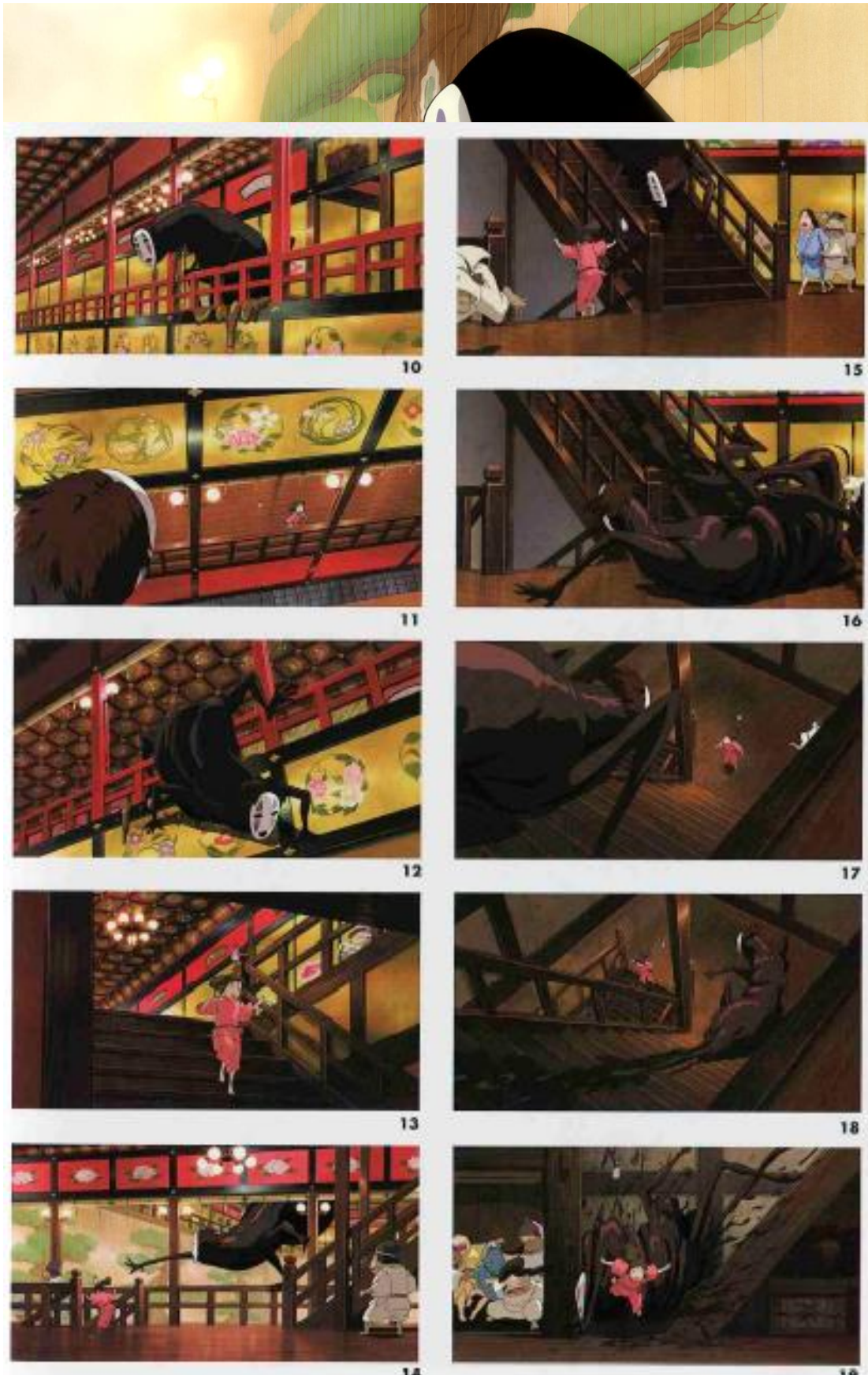
On her first day of wont (at the bath house. Chihiro and her superior Lin are assigned the daunting task of cleaning the filthy big tub. The rocking Stink Spirit (who Is In fact a river spirit) appears. The river spirit Is delighted with Chihiro. Yubaba is overjoyed too from all the gold nuggets she's accumulated. But then No Face whom Chihiro mistakenly Invited in begins to act strangely....

After eating the river spirit's dumpling, No Face writhes in pain. The enraged No Face frantically chases after Chihiro. Yubaba's light ball is powerless against No Face, who covers her with sludge. But after crashing against the wall, the exhausted No Face spits out Aniyaku and the Yuna he had swallowed.

As it emerges from the direction of the bath house, the sea railway train arrives at the platform in the sea. According to Kamaji, the train doesn't return. Follow the adventures of ten-year-old Chihiro as
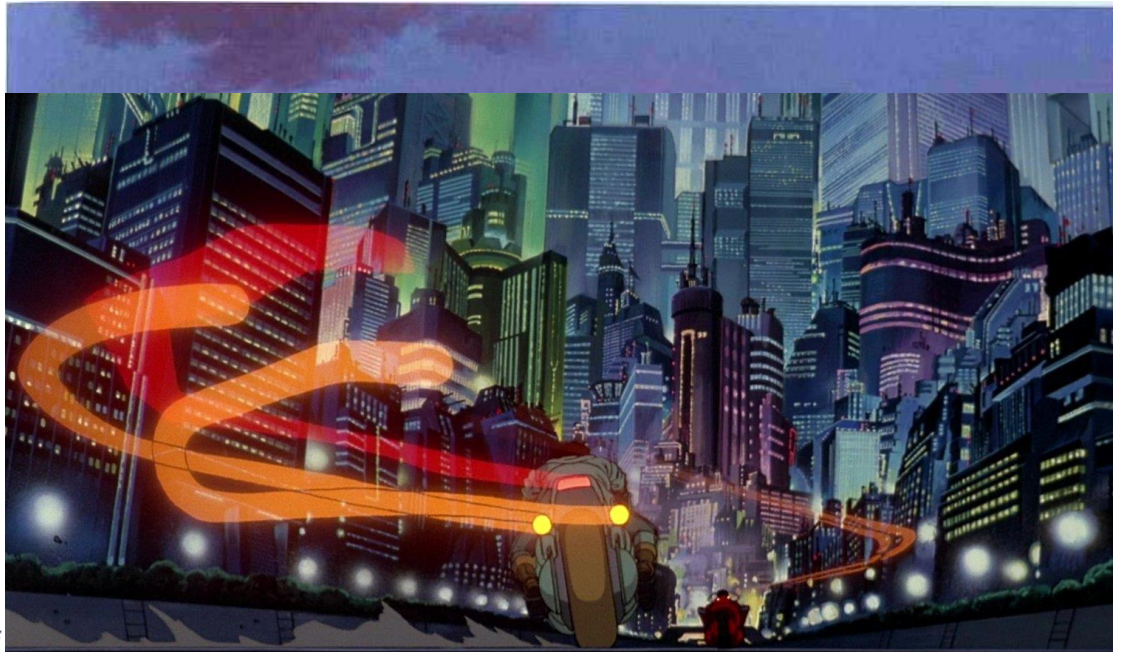
Figure 60 : Various into evening.

she enters the spirit world by accident in Taiwan's town of Jiufen. Jiufen is a village within the hills of north-eastern Taiwan that has an old district with streets all packed up with cafes, restaurants and souvenir shops. You can even enjoy the view of the Pacific Ocean Although Hayao Miyazaki has denied rumors that the iconic spirit world was based on this town, the striking similarities make it worth a visit.

5.2   JAPANESE METABOLISM IN AKIRA (1988)

With its unflinching violence and vividly rendered animations, Katsuhiro Otomo's cyberpunk anime, Akira (1988), is an iconic cult classic. Decades after its release, this film has inspired musicians like Michael Jackson and Kanye West as well as other major Sci-Fi franchises like The Matrix (1999). While Akira continues to be praised for its richly detailed visuals and intense dystopian narrative, we shouldn't forget the Japanese historical (and architectural) context from which so much of the film's design comes from.

In the early 1960's, a new architectural movement was forged within post-war Japan. Faced with the wide-scale destruction of numerous cities, a small group of architects (Kenzo Tange, Fumihiko Maki, Kiyonori Kikutake, Kisho Kurokawa, Arata Isozaki just to name a few) began to maximize and re-design the urban landscape into one of growing, modular megastructures inspired by the smallest processes of life.

A quote from their original manifesto, Metabolism: The Proposals for New Urbanism, sums up their concepts up quite nicely: "We regard human society as a vital process - a continuous development from atom to nebula.

The reason why we use such a biological word, metabolism, is that we believe design and technology should be a denotation of human society. We are not going to accept metabolism as a natural process, but try to encourage active metabolic development of our society through our proposals."
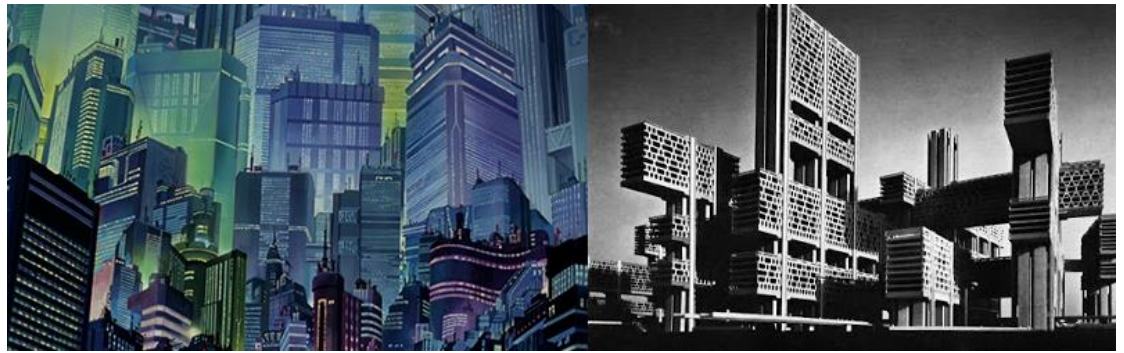
So what does a film made in 1988 have to do with an architectural movement from twenty years prior? The film's opening sequence:

Akira's plot is long and complex, but the film's primary themes focus on life, death, war, and transformation.

The setting -- Neo-Tokyo following WWIII -- bears a striking resemblance to Tange's City of Ten Million.

Although his proposal was supposed to serve Japan's growing population and the resulting surge in the use of automobiles, Tange's post-nuclear utopian model is now wrought with social unrest in Akira – protestors, biker gangs, a failing school system, and top-secret military experiments wreak havoc on the streets.

Figure 61 : Kenzo tange – plan for tokyo bay, city of ten million (1960)

This is when we see the world of Akira and the beliefs of the Metabolists clash against each other. From the start of the Metabolist movement to the 1980's, Japan underwent a period of rapid economic growth, fueled by their advances in technological innovation. Neo-Tokyo's glittering, monolithic skyscrapers should embody this expansion, but Otomo showcases this city's dark underbelly instead, one where the machine of living is reduced to gritty wasteland. During film's creation, animators spent hours drawing sequences (like the one pictured above) down to the smallest

Figure 62 : Kenzo tange – renewal of tsukiji district (1963)

individual building to heighten this sense of overwhelming, violently monstrous urban density. Neo-Tokyo becomes a place both beautiful and terrifying.

Tange's Tsukiji District Renewal plan is a complex lattice of interconnected towers, linked together by various streets and bridges. These multi-level clusters were designed to adapt to the needs of the population. Neo-Tokyo, with its skybridges, networks of pipelines and highways, offices and apartments stacked on top of shopping malls and rooftop plazas, takes Tange's initial plan and develops his uniform, modular design on a much larger scale. However, the city's continuous growth – seen in scenes of construction throughout the film – don't do very much to benefit its citizens. We see the Metabolist utopia mutate into a chaotic, unstable military state as the skyscrapers keep getting taller.
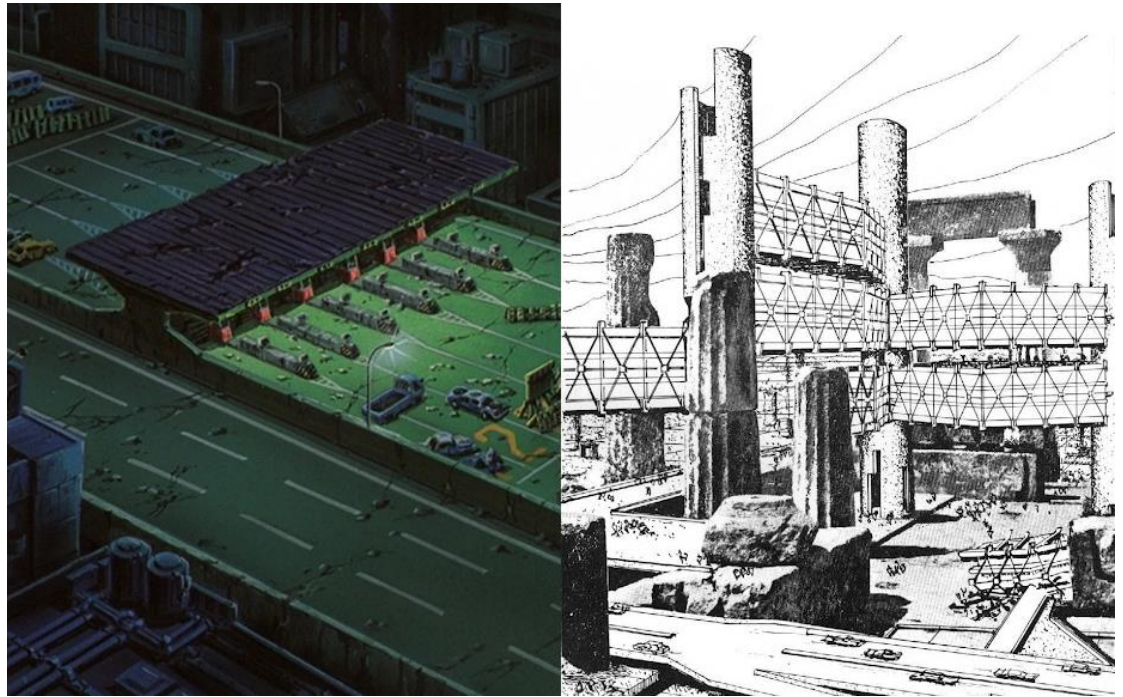
During the film's first motorcycle chase, we're taken away from the shiny, neon megastructures of Neo-Tokyo to what is left of Old Tokyo. This abandoned, derelict site is crucial to Akira's storyline (our first real introduction to the military's top-secret operations), but it's also an important reminder of Japan's war-torn past.

Arata Isozaki's Future City is a place where, much like Old Tokyo, the past and future co-exist. Isozaki, having lived through the trauma of Japan during WWII, was influenced by the destruction he witnessed and decided to design a new city that would be built on top of its own ruins, a recurring cycle of life and death as the city grows and collapses.

Figure 63 : Arata isozaki – future city, the incubation process (1962)
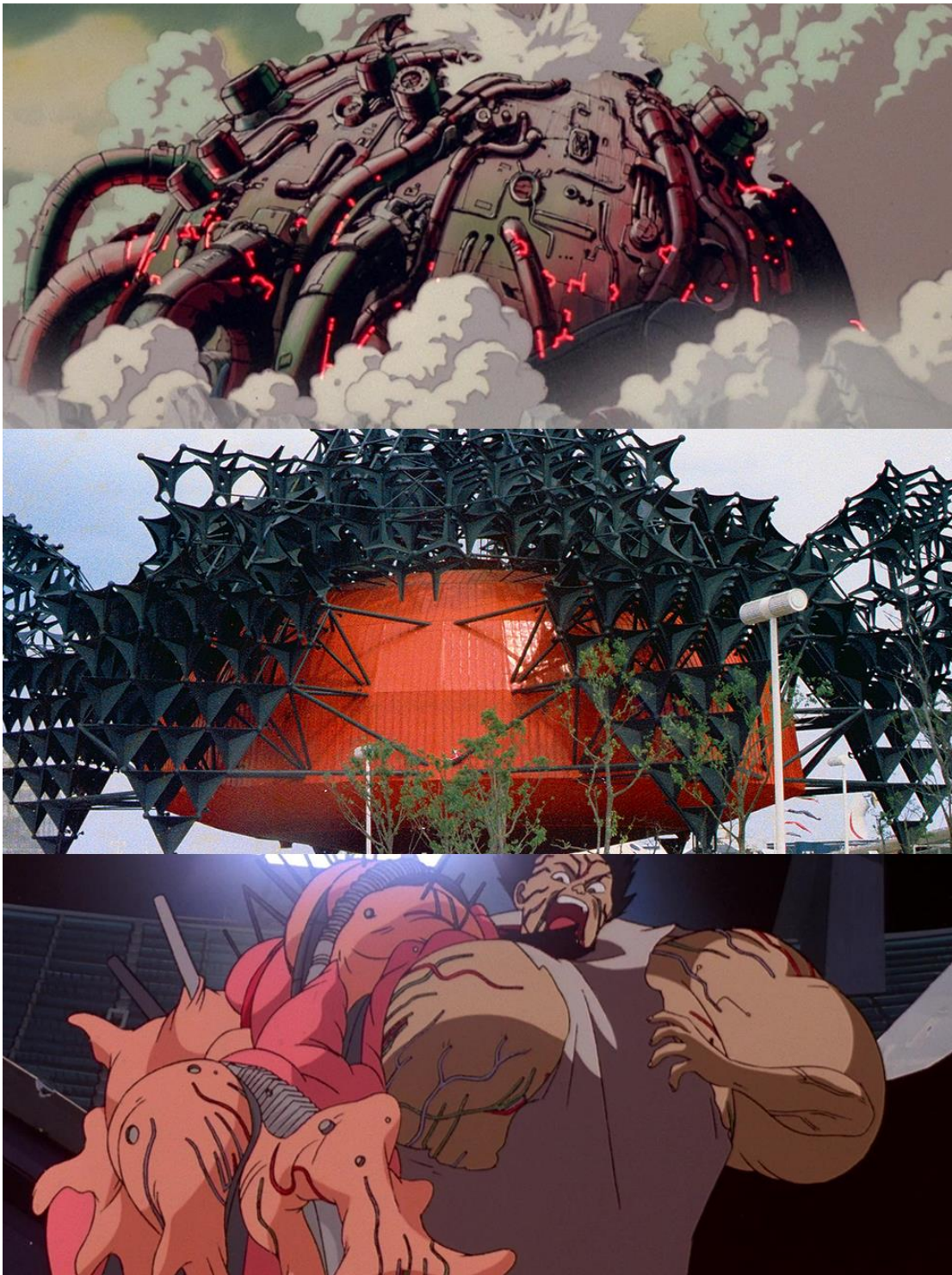
Neo-Tokyo is not so different from Isozaki's vision. Its highways are still attached to the city's previous location. Although Neo-Tokyo continues to expand, the ruins of Old Tokyo remain attached to it like a shadow, a futuristic city haunted by its past.

We are brought back to the ruins and the death of cities in the film's finale as Tetsuo destroys the military's storage facility and ravages Neo-Tokyo. Both Tetsuo and Neo-Tokyo undergo a Metabolist life cycle of their own, growing too fast and unraveling into destruction.

Expo 70 in Osaka, Japan would be the Metabolists' last large-scale exposition of their architectural creations. Metabolist architects produced these monumental, futuristic pavilions by merging the construction of human

Figure 65 : Kisho kurokawa - toshiba-ihi pavillion (1970)

cells   with

technological developments. Akira's final scenes end up echoing these massive, organic structures in both shape and scope.

The Toshiba Pavilion's simplified, spherical form doesn't just resemble the storage structure that houses Akira's remains as it is destroyed by Tetsuo's psychic abilities. Tetsuo's body begins to mutate into shapes like the Toshiba Pavilion, his powers grow increasingly unstable as his robotic arm swells into his body. He is pushed to the limit of humanity much like the Metabolists pushing their designs to the edge of architectural possibility.

After all this violent destruction, it's fitting that Tetsuo's mutated shape ultimately resembles a child – a symbol of the life and death cycles now tangled in one another.

In Akira, we see the boundaries between human and machine become blurred. Tetsuo's body develops into a mutated megastructure of its own, taking the Metabolist growth process to absolute extremes. It's no surprise that Tetsuo meets his end within an Olympic Stadium (Toyko was the host of the Summer Games in 1964) – the ultimate symbol of Japanese reconstruction now left in ruins:

Figure 66 : Kenzo tange – yoyogi national gymnasium (1964), used during the olympics for smaller events.
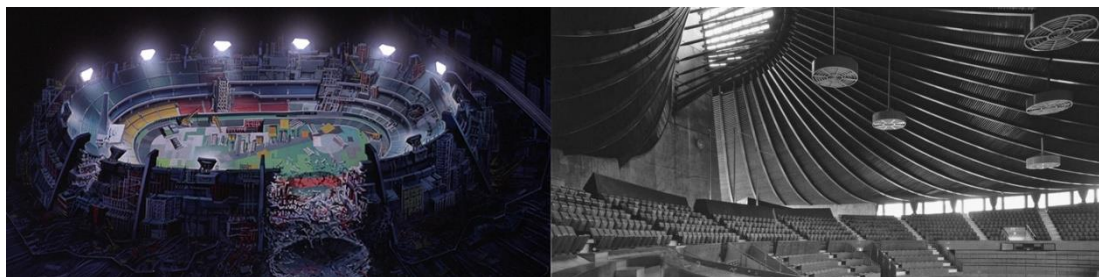
Akira is not only a sci-fi, dystopian masterpiece. This futuristic anime grapples with the complexities of Japan's post-war reconstruction, from Tokyo's rapid economic growth to the resulting social unrest. Otomo has talked about this tension as his main source of inspiration for the film in previous interviews when, in the 60's, he watched homeless youth and political demonstrators litter the streets in search of change.

While it's unclear if Otomo pulled all his architectural influences directly from Metabolist projects, the Metabolists themselves were also witnesses to Japan's recovery and took part in the societal questions raised during this era of recovery. Their futuristic city designs examined the needs of the human body, the very processes of life needed for it to grow. Their designs focused primarily on organic megastructures, constructed to change with society.

Akira presents a world where the Metabolist utopia has failed. Although set within a fictional future, the film examines Japan's period of reconstruction. These megastructures of life -- from Tetsuo's psychic abilities to the bright Neo-Tokyo skyscrapers – mutate into chaos. As the viewer, we are placed within the cycle of life and death, forced to witness a future that grows over its ruins and destroys itself all over again.

5.3   'GHOST IN THE SHELL" S
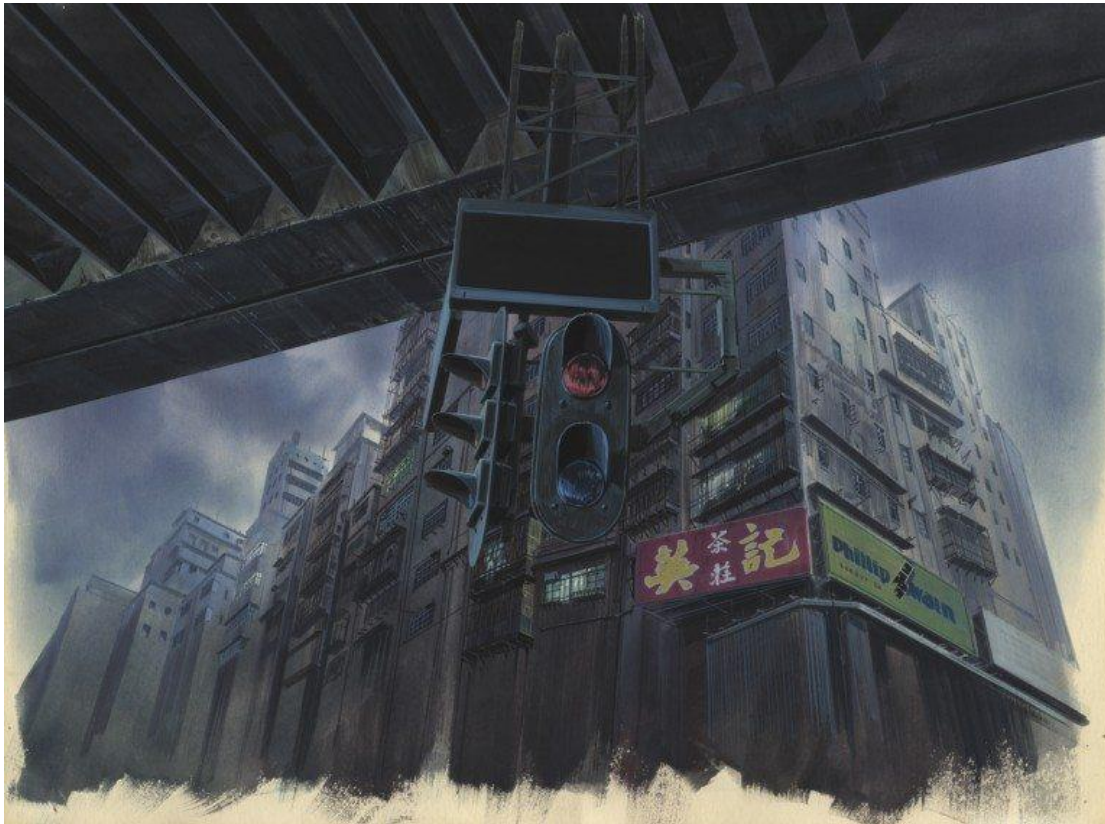
ARCHITECTURAL UNIVERSE (1995)

With its architecture that floats between two worlds, sometimes brutalist with its concrete buildings covered in neon advertising signs, and other times futuristic with its streamlined skyscrapers whose glass walls stretch

Figure 67 : Shirow Masamune, Kodansha, Bandai Visual, Manga Entertainment, Kodansha, IG and ITNDDTD.

up to the clouds, the universe of the

famous anime film Ghost in the Shell is almost a character in the story in its own right.

Ghost in the Shell was filmed in 1995 by Mamoru Oshii, and adapted from the manga of the same name, released in 1989 by Masamune Shirow. The viewer follows two cyborgs working in the anti-terrorist government unit in New Port City in Japan, who are thrust into 2029.

Thus, the viewer plunges into a world where the city, expanding vertically, seems to swallow up the few traditional wooden houses that had managed to survive, and where the residents seem to be submerged in the immensity of the metropolis, the constant stream of information, and the surrounding noise. This impression is accentuated by the film sets, designed by the film's artistic director Hiromasa Ogura.

Hong Kong as a main source of inspiration

In Ghost in the Shell, he wished to combine two distinct universes but in such a way that they would intermesh perfectly on screen: an existing city and an imaginary city. Hong Kong and particularly Kowloon Walled City were the 'real' inspiration for the film. Thus, the artistic director visited the city-state several times to photograph this citadel, a city within the city, where the black market was king, prior to its demolition in 1994. For the imaginary city, illustrator Takashi Watabe created the futuristic urban environment in its entirety. The two were then combined in sketches before being laid out prior to filming, in a coherent universe.

All the sets and backdrops for Ghost in the Shell were created entirely by hand as technical drawings or watercolours, allowing for greater attention to detail. The film has become a global reference in Japanese pop culture, and was adapted into an action film in 2017 by Rupert Sanders, starring Scarlett Johansson and Takeshi Kitano.

Figure 69 : Shirow [...] *ITNDDTD.*

Figure 71 : Shirow [...] *ITNDDTD.*
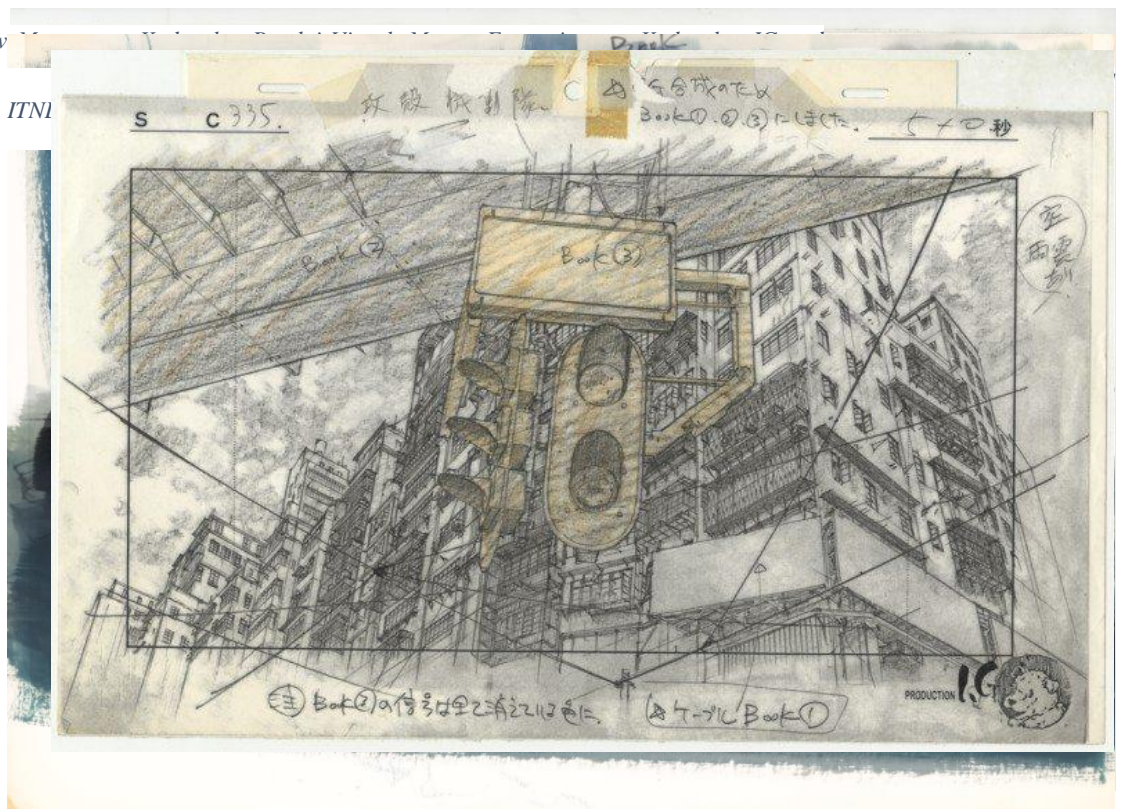
Figure 68 : Shirow Masamune, Kodansha, Bandai Visual, Manga Entertainment, Kodansha, IG and ITNDDTD.

Figure 72 : Shirow Masamune, Kodansha, Bandai Visual, Manga Entertainment, Kodansha, IG and ITNDDTD.

6   CONCLUSION

The fields of architectural history and theory have by convention expectedly focused on the evolution of built and paper architecture and the sociocultural interactions of physical culture with an emphasis on architecture and associated creative disciplines. For architectural history to examine the portrayal of architecture in various media is a novel concept to an extent, but one that extrapolates from the type of scholarly work architectural history has been engaged in for years. We live in a time where entertainment media is more present, more sophisticated, and more nuanced than ever before: books, films, television, video games, and animation are all parts of our contemporary lives and while the mechanisms and narrative trajectories these media apply to represent our lives in fiction have been investigated by cinema studies, language studies, and arts historical scholars their foci have mainly been the representation of society and culture with an emphasis on character development and plot. The built environment in a fictional work is not just represented, but in fact created. This is nowhere truer than with animé, manga, and other animation as every aspect of such works must be drawn and thereby all "sets" are directly created by animators.

It's critical for the audience to understand the differences between each location when an animation takes place in various locales. It's normally simple to move from one city to another. People are usually able to distinguish the architecture in a virtual city if it is real. The Tube and Westminster, for example, are located in London, but the Tokyo Tower and Rainbow Bridge are located in Tokyo. But showing us multiple places in the same setting is the true challenge. How do you make each location distinct?

From studying the beginnings of Baroque to the emergence and fall of Art Deco, architecture covers a wide range of topics. However, all of the information and history behind a building's design can be compressed into a single frame in cinema and animation. That is a form of narrative in and of itself. So, how can architecture contribute to the telling of a storey?

Knowing how to use setting is one of the most critical components of storytelling. Because the setting is where our stories take place, it's crucial to consider how it influences and is influenced by the characters who populate them. Architecture is a fantastic technique to define a setting's vibe.

7   LIST OF FIGURES

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