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Japanese Animation Guide: The History of Robot Anime

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Addition to the Release of this Report

This report on robot anime was prepared based on information available through 2012, and at that time, with the exception of a handful of long-running series (Gundam, Macross, Evangelion, etc.) and some kiddie fare, no original new robot anime shows debuted at all. But as of today that situation has changed, and so I feel the need to add two points to this document.

At the start of the anime season in April of 2013, three all-new robot anime series debuted. These were Production I.G.'s "Gargantia on the Verdurous Planet," Sunrise's "Valvrave the Liberator," and Dogakobo and Orange's "Majestic Prince of the Galactic Fleet." Each was broadcast in a late-night timeslot and succeeded in building fanbases.

The second new development is the debut of the director Guillermo Del Toro's film "Pacific Rim," which was released in Japan on August 9, 2013. The plot involves humanity using giant robots controlled by human pilots to defend Earth's cities from gigantic "kaiju." At the end of the credits, the director dedicates the film to the memory of "monster masters" Ishiro Honda (who oversaw many of the "Godzilla" films) and Ray Harryhausen (who pioneered stop-motion animation techniques.) The film clearly took a great deal of inspiration from Japanese robot anime shows.

The separate "Survey and Report on Japanese Tokusatsu," which was prepared in parallel with this report, explained the deep connection between "monster-versus-hero" (tokusatsu) productions and robot anime shows. Seeing a major Hollywood production give this unexpected show of respect proves that tokusatsu and robot anime culture are far from being a closed book.

All of this serves to remind us of the relevance of the themes explored in this report as they continue to develop, not only domestically but in the form of international cultural exchanges. This report was prepared with a sense of crisis as to the current lack of scholarship, methodology, and appreciation of Japanese robot anime culture in its home country, and it is my sincere hope those who share this interest and concern will not hesitate to share their opinions and comments.

Ryusuke Hikawa
Editor in Chief
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[Contributors]*

In order to analyze the multifaceted developments and changes of Japanese robot anime culture, the project team centered on an anime critic and a member of a firm engaged in producing robot anime.

Ryusuke Hikawa	Anime Critic
Koichi Inoue	Sunrise, Head of Cultural Promotions Office
Daisuke Sawaki	Writer
Matt Alt, AltJapan Co., Ltd.	Translator

* Their titles are as of February 2014.

Preface

[Ryusuke Hikawa]

1.1. Background

The origins of postwar Japanese animation (anime) can be traced to the robot series “Tetsuwan Atom” (Astro Boy), which aired on the then-new medium of television in Japan’s high growth period of the 1960s. Its appearance marked the spread of popularity of televised anime, much of it based on science fiction novels and films inspired by American culture. This was an era of dramatic change for Japanese culture, industry, and society. Science and technology promised to fuel economic growth; the emergence of nuclear families transformed social structures. Mirroring this cultural upheaval, anime experienced a period of rapid growth that led to the creation of innovative new visual and narrative techniques.

Originally, domestically produced anime was intended mainly for children. But starting in the mid-1970s, the industry dramatically expanded, thanks to growing acceptance among an older demographic of junior and senior high schoolers that proved fertile ground for lucrative merchandising campaigns. By the mid-1990s, increasing foreign attention led to widespread international appreciation of Japanese anime. Today in 2013, and thanks in large part to the power of the internet, anime is widely recognized as a distinctive medium, and the word “anime” has even been adopted by many languages around the world.

However, even in Japan very little attention has been paid to the societal trends that so deeply influenced the rise of Japanese anime as a culture, and as a result anime works have spread and developed fan bases abroad in a highly independent, haphazard manner. Anime lacks a coherent narrative (or if you prefer, an “autobiography” or “resume”) that explains its value from the standpoint of its unique characteristics and their cultural significance, forcing foreign fans to construct their own analyses and conclusions. Even within Japan, with its fifty-plus years of anime history since the debut of Tetsuwan Atom, a large “literacy gap” has developed between the older demographic who has followed anime for decades, and the younger demographic whose knowledge is gathered near exclusively from the internet. This makes it very difficult for both sides to establish common ground for discussion.

As a result, even when creators and productions achieve a measure of success, consumers and critics lack the analytical tools needed to properly evaluate and understand them in the context of Japanese anime culture as a whole. Complicating the situation further, often exaggerated mass media reports of anime’s popularity abroad continue to inform export strategies, in spite of the fact that the key “hows and whys” of

Japanese anime's inherent advantages remain almost totally uncataloged. Because of this, the current state of affairs is that most organizations justify taking action with hollow explanations that inevitably distill down to "because we heard it's popular abroad."

The time has come for Japan to take the initiative and paint a proper portrait of anime culture that can be shared with the world. Clarifying the gap that exists between domestic and foreign viewpoints will enhance international communication, further acceptance and promotion of Japanese culture, and undoubtedly reveal new insights along the way.

In order to create this portrait, it is necessary to develop a methodology that can properly convey the current state of anime culture considering ever-changing socio-cultural and industry trends. One tool for doing this is to create a roadmap encompassing past, present, and potential future developments. Systematically organizing this information represents a terrific opportunity to reinvigorate the dialog domestically and abroad and chart a course for the future.

As such this report aims to focus on a highly representative sample of domestic Japanese anime culture: robot anime. Robot anime provides a quintessential example that we believe will allow us to achieve our stated aims of deeper cultural investigation and identifying unique characteristics of domestic animation.

Our aim is to develop this methodological foothold here so that it can be applied for use in investigating other subgenres (such as "magical girl anime") in the future, eventually illuminating the characteristics of anime culture as a unified whole. We strongly believe that this will give us the tools needed to convey the richness of Japanese anime culture to future generations.

1.2. Why Robot Anime Matters

This report treats "robot anime" and "giant robot anime" as largely equivalent terms. It traces the development of the genre, centered on shows such as "Mazinger Z" and "Gundam," from its inception to the present day. The term "robot anime" also encompasses productions featuring human-sized robots as well, but there are not enough of these series to constitute a standalone genre, so they are lumped into the robot anime genre out of necessity.

Japanese anime can be subdivided into a wide variety of genres, including sports and comedy. Robot anime is one of these genres. However, it is unique for several reasons.. Its development closely paralleled the rise of Japan's middle class during the process of Japan's transformation into a technological powerhouse and manufacturing center after

World War II. And it evolved together in concert with tokusatsu (live-action sci-fi filmmaking). For these reasons, robot anime represents an important nexus of Japanese anime culture.

As such, investigating robot anime allows one to illuminate the development of not only other neighboring genres, but the development of television culture in general. Its deep relationship to its era and times reveals perspectives that make it a valuable subject for research.

Another large reason for prioritizing robot anime for study is that it represents a genre that has generated both a large amount of original content and genre-dedicated creators such as directors Yoshiyuki Tomino, Ryosuke Takahashi, Anno Hideaki, and Shoji Kawamori. This makes it the ideal genre for digging into the nuts and bolts of what makes Japanese storytelling unique.

Another major reason for the selection is its track record in producing content that has gained wide popularity abroad. From a standpoint of cultural influence, robot anime has played an outsized role in the anime export industry. For example, “Goldorake,” the French-language version of the robot anime “UFO Robo Grendizer,” achieved a near 100% viewer share among its target demographic when aired in France in the 1970s, and continues to enjoy great popularity there today. This makes it an important example of cross-cultural bridge building. Another example can be found in “The Transformers,” a 1980s American television series developed from a Japanese toy line. It proved so successful that the anime and toys were eventually reverse-imported back into Japan, making it a key example of a long-running two-way cultural exchange. In the early 21st century, the series was “rebooted” to tremendous success as a CG-animated film series, cementing giant robots’ position as an internationally successful and lucrative genre.

Another example of this can be seen in the “Power Rangers,” the American remake of Toei’s televised live-action “Super Sentai Series,” which brought a great many Japanese-made transforming robot toys into the international marketplace. Their success further expanded the cultural and business opportunities for Japanese robot anime and undoubtedly influenced foreign live-action robot films such as “Real Steel” (dir: Shawn Levy, 2011) and “Pacific Rim” (dir: Guillermo Del Toro, 2013).

Robot anime’s influence on visual creators around the world today vaults it to what could be called the top class of Japanese pop culture. This alone makes tracing the roots of its development as “made in Japan” content all the more significant and critical.

Many Japanese scientists and engineers trace their fascination with mechanical

engineering directly back to robot anime, toys, and models. This trend is particularly pronounced among the “First Gundam” generation, currently in their 40s. As such the robot anime genre has exerted a great influence on the real world, inspiring its fans to study space technologies, or to enter the automotive industry to bring their designs to life, or to even create actual bipedal robots.

Robot anime enjoys widespread recognition and has played a vital role in shaping Japanese culture and industry. Yet even today there are many who remain unaware of its “made in Japan” roots. That a history has not yet been written by the Japanese who created the genre should be a cause for concern.

Widely watched domestically and abroad, across eras, a perfect symbol for the country of Japan itself, and highly influential on industry and trade; robot anime represents an extremely valuable and versatile test-case for research.

This report is being prepared with future expansions and revisions in mind. It is a birds-eye view of the “big picture” of the genre and is not intended as a comprehensive “be-all, end-all” on the topic.

Chapter 2: A Cultural History of Robot Anime

[Ryusuke Hikawa]

This report was created to chronicle the “rise and fall” of robot anime and its impact on anime culture as a whole. It chronicles the process by which it originated and launched a large number of original and auteur-driven stories, leading to its rapid decline in the mid-1980s.

Developments thereafter and up to the present day are covered only briefly and represent a subject for potential future research.

2.1. What is Robot Anime?

Robot anime represents a unique form of popular culture developed in Japan. From a global standpoint, Japan's development of humanoid robotics technologies and animation techniques stands out as unique. Robot anime represents the thread connecting these two fields, and influenced their developments over the course of a half-century.

Robot anime has had a great impact abroad as well, transcending the framework of exported kids' culture and toys to influence international film culture, including large-scale Hollywood productions.

Robots can be subdivided into a variety of forms. There are human-sized and giant robots; friendly robots, heroic robots, and robots that are vehicles; and sentient and non-sentient robots. This variety is precisely what gives robots their multifaceted charm.

A key characteristic of Japanese robots is that they are viewed not simply as inorganic machines but as characters. This report specifically focuses on giant robots. From the standpoints of sheer number of productions and overall duration of popular interest, giant robots represent the Japanese animation industry's single largest genre.

How did it develop and grow? We aim to answer this question by creating a timeline of robot anime and viewing it in relation to its era and neighboring genres so as to build an overview of how changes in Japanese society, technology and media affected it specifically and animation culture generally. We believe the reasons underlying the popularity of Japanese robot anime around the world and among a broad demographic of viewers can be clarified at least in part by tracing the genre's relationship to changes in Japanese cultural trends at large.

It is important to note as "pre-history" that there was a great deal of popular interest in robots in Japan even before World War II, which created a firm foundation for the acceptance of robot content afterwards. During and immediately after the war, robots

were subjects for illustrated stories, *kami-shibai* plays, and comic books, so Japanese robot culture cannot be said to have developed exclusively out of animation.

That said, the history of robots in other media is beyond the scope of this report, which focuses exclusively on robot anime culture.

2.2. The 1960s: Robot Anime in the Age of Science

At this point the genre of (giant) robot anime did not yet exist, but this time period includes an important step in the process of its formation: the rise of televised animation.

By the 1960s, Japan had largely recovered from the destruction of World War II some twenty years earlier and entered a period of rapid economic growth. One aspect of this newfound prosperity was the spread of a then cutting edge media technology among the population: television.

January 1, 1963 marks the birth of serialized TV anime in Japan. That is the day when the first thirty-minute episode of Osamu Tezuka's "Tetsuwan Atom" (literally "Mighty Atom," aka "Astro Boy") was broadcast. An instant hit, it kicked off the era of mass-produced televised animation in Japan, with a great many production companies both new and old jumping into the fray. At this point, shows generally centered on human-sized heroes that were actually more like hybrids of man and machine than true robots. This trend came to play a major role in shaping the development of Japanese anime culture. The success of "Atom" ushered in a great many shows featuring robotic protagonists, including "Tetsujin 28-gō" (literally "Iron Man No. 28," broadcast in the US as "Gigantor") and "8 Man" ("Tobor the 8th Man"). In other words, robots helped build Japan's reputation as an anime superpower.

The TV series "Tetsujin 28-gō," based on a comic by Mitsuteru Yokoyama, starred a young protagonist who piloted a robot by remote control. It is the ancestor of all giant robot anime shows. Both "Atom" and "Tetsujin" had already ruled as top titles in Kobunsha's weekly comic magazine "Shonen" for ten years running, making the creation of animated series a virtual necessity.

The 1960s also marked the international space race kicking into high gear. The public embraced scientific technology as a path to prosperity and happiness, ushering in an era of rapid industrial development. Although today we see the effluent from factory smokestacks as a public health hazard, at the time citizens celebrated it as a symbol of prosperity in popular films such as "Kemuri no Ōsama" ("The King of Smoke") (dir: Hajime Tsuburaya).

In 1964, the year after Atom's debut, the Olympic Games convened in Tokyo. This demanded a rapid investment in infrastructure. The pace of life increased exponentially as highways were built and the Tokaido Shinkansen (Bullet Train) opened for service. Tokyo's skyline changed monthly as new roadways were laid and buildings went up at a fevered pitch. As traditional wooden dwellings were pulled down and gravel roads were surfaced with asphalt, Tokyo transformed into a metropolis of concrete.

In this era of seemingly infinite advancement, humanoid robots emerged as symbols of scientific progress. The city of Tokyo itself was transforming at what could be called a robotically breakneck pace. Animators designed robot characters with sleek, gleaming bodies, evoking the clean new roadways, the speeding bullet trains, and shining skyscrapers that were rising up all around them.

Early robot shows were deeply influenced by a "modern-day folklore" of limitless scientific potential. The televised anime of this era was a perfect fit for this moment in Japanese history, portraying a future where science would make life better for everyone. Unlike manga, printed in black and white on rough paper, anime was painted on plastic sheets called cels, giving it a bright luster. When projected on the sheet of glass used as the display for a cathode-ray tube, it accentuated the robotic gleam of the characters all the more.

For the largely still impoverished children of Japan, this "clean look" glimmered like an arrow pointing to the future. Among the generation who grew up watching the shows in realtime, the first thing that inevitably comes to mind isn't the actual storylines but rather the merchandise. Specifically, the "magic" rub-off transfers packaged with Marble Chocolates. The shiny, smooth transfers perfectly mimicked the texture of the images on the television screen, and their "robotic" appeal kicked off a fad among children. In other words, among children of the era, these broader qualities in and of themselves were perceived as "robotic," and connected to the changes in the cityscape around them.

Early anime for TV was fueled by a huge amount of content originating in children's weekly and monthly magazines, ushering in a "honeymoon phase" of mutual cooperation and prosperity. But this doesn't mean that robot anime took off. Tetsujin 28-gō remained the giant robot genre's solo hit and there was no sign of a successor on the horizon.

However, in the late Sixties, a paradigm shift emerged that would that would paradoxically breathe true life into the robot anime genre while representing the first true challenge to the anime industry's success as a whole: the debut of live-action

special effects shows centering on giant heroes, kaiju monsters, and space-age vehicles. Known as "tokusatsu" (shorthand for "tokushū satsuei," or "special effects") shows in Japanese, they began capturing mindshare from anime heroes in the hearts of Japanese children.

The emergence of these heroes, kaiju, and vehicles as objects of children's (and specifically boys') desire came to form the foundation for the later success of robot anime as a business in the 1970s.

In the early stages of the TV anime business, the anime and manga were treated as primary material, with products festooned with the characters or logo from a given show playing a secondary role. However, the "kaiju-hero-vehicle" paradigm shattered this simple primary-secondary business model.

The first stirrings of interest in kaiju monsters emerged in a made-for-TV movie called "Ultra Q." Created by Tsuburaya Productions, the brainchild of special-effects legend Eiji Tsuburaya, it remains the genre's cornerstone. Before "Ultra Q," movie theaters represented the sole domain of monster movies. Now they were available in living rooms across Japan.

In July of 1966, Tsuburaya followed up with a visually improved successor called "Ultraman," in which a giant-sized hero rid Japan of giant kaiju using his trademark Specium Ray. Like fuel on a smoldering fire, "Ultraman" had the effect of igniting a full-fledged kaiju craze among Japanese children.

Each show featured the same general pattern. A new giant monster would appear, the hero and his support vehicles would confront it, and the hero would eventually defeat it with a special move. This routine solidified into the de-facto standard for hero programming in Japan; it remains widely used today, even in girls' programming such as "Pretty Cure." It represents a uniquely Japanese style of storytelling.

The post-Tetsuwan Atom era had been the golden age of kid-sized sci-fi heroes. The majority of productions centered on kids using superpowers or super-weapons to overcome challenges, solve crimes, and thwart bad guys (often gangs). These shows represented updates of classic fare such as "Kaijin Nijū Mensō" (The Fiend With Twenty Faces) and "Gekkō Kamen" (Moonlight Mask) re-worked with boy adventurers and detectives. But the sudden appearance of Ultraman rendered them obsolete almost overnight.

In the TV series, Ultraman was an alien from the Nebula M-78. His body featured red stripes on a silver background. The silver can be seen as a metaphor for the space rockets that were cutting edge scientific tools of the day; the red, for blood. In other words, Ultraman was a hybrid of advanced science and humanity. His pupil-less eyes

glowed to accentuate his alien nature. The overall design was somewhat robotic, but the idea was that of an alien whose technology far surpassed that of Earth.

His "finishing move" was a "Specium Ray" created using optical special effects rather than the traditional guns or swords carried by human-sized heroes. Creatively it was a quantum leap ahead of other sci-fi productions of the day, and successfully changed the entire image of the sci-fi hero. The resulting paradigm shift essentially put a stop to human-sized robot anime in the Tetsuwan Atom mold, and would have a tremendous impact on the character design and action choreography of 1970s giant robot anime.

Ultraman represents the starting point for giant heroes in anime and tokusatsu, a trend that has continued unabated for 47 years as of 2013. The reason this report focuses on giant robot anime is to explore and analyze this enduring popularity.

At the same time, a pivotal "mecha" (vehicle)-centric TV production debuted as well: "Thunderbirds." NHK began broadcasting localized episodes of the British sci-fi series in 1966, and it represents another powerful influence on Japanese robot anime. The characters were portrayed using marionettes (string puppets), but their high-tech vehicles were portrayed with special effects based on extraordinarily detailed miniatures.

The 20-year anniversary of the end of the war in the Pacific ushered in a worldwide boom for war dramas. A great number of war films were being produced both domestically and abroad, and Japanese kids' magazines teemed with special features and dramatic illustrations of wartime vehicles. Plastic model kits of the Zero Fighter and the battleship Yamato flew off store shelves.

Models of military tanks, aircraft, and ships, each featuring the distinctive design sense of their respective nations, came to function as communication tools for adults and their children. The nationality, year of production, and model number for each military vehicle stimulated the natural categorizing and collecting instincts of young boys. And the "mechanics" of the Zero fighter, with its retractable landing gear, sliding canopy, folding wings and landing lights, greatly appealed to kids and would eventually inspire the gimmicks incorporated into later robot designs.

Children born during this first generation of TV anime (around the early 1960s) were not only raised by parents who had experienced World War II themselves as elementary and junior high school students, but grew up in an atmosphere of fascination for weaponry stoked by kids' magazines of the day. Yoshiyuki Tomino and the other creators of "Mobile Suit Gundam" certainly fit this mold; the use of model numbers to distinguish the robots as weapons was inspired by memories of the World War II fad from their youth. In other words, the worldwide boom for war dramas represents

another one of the roots of robot anime.

That said, World War II weaponry represented classic, antiquated designs, and came with the moral issues inherent in that they were used to kill and maim during war. "Thunderbirds" upended this paradigm by re-casting these weapons as "rescue vehicles" endowed with tremendous power. They stimulated imaginations not as war machines, but rather as examples of cutting edge scientific progress.

Thunderbirds featured vehicles numbered one through five, each optimized for a different mission and with distinctive silhouettes. Thunderbird 1 was a hypersonic rocket plane with a swing-wing mechanism, an early "transformation" system. Thunderbird 2 was a heavy transport carrier aircraft equipped with detachable containers, representing an early "combining" system. These "transforming/combining" elements represent the roots of similar gimmicks that would be used to great effect in later Japanese robot anime shows.

Thunderbird 1 served as a mobile command center for rescue operations; Thunderbird 2 for transporting rescue equipment; Thunderbird 3 for space rescues; Thunderbird 4 for underwater operations; and Thunderbird 5 as an intelligence-gathering satellite in Earth orbit. Children instantly grasped the logic of their functions. One of the show's secondary vehicles, a drill-equipped tunneling machine called "Jet Mogura" (The Mole) particularly captivated Japanese children and touched off a plastic model boom far eclipsing that of the historic military models.

"Thunderbirds" was revolutionary from a visual performance standpoint as well. The rescue machines were built by a wealthy philanthropist and hidden away on a remote island. The pilots boarded their vehicles using elaborate mechanized paths secretly connecting to their private quarters. The extensive launch sequences from the secret base gave the vehicles center stage. Appearing in every episode and often taking a solid minute or more, these scenes portrayed the fantastic machines launching from long runways lined with palm trees or emerging from hatches concealed beneath pools or cliff faces. In spite of the fact that these launch sequences were recycled stock footage, they proved captivating and would be extensively incorporated into the Japanese robot anime genre as well.

"Thunderbirds" greatly influenced the sequel to the 1967 show "Ultraman," called "Ultraseven." In "Ultraseven," the Science Patrol's base was constructed deep in the mountains and housed three vehicles, Ultra Hawk 1, 2, and 3, whose launches visually echoed those of the Thunderbirds machines – and blazed another path for Japanese robot anime as well.

Shows of this era, including anime, tokusatsu, and marionette shows, came to be

collectively called "TV manga" in Japan. The monsters-and-machines element that made tokusatsu shows so successful represented an Achilles heel for the anime technology of the era. Tokusatsu felt "real," but animation celwork had a shiny, plastic feel. In anime, detail was simplified to heighten imagination and drama, but at the expense of physicality, realism, and presence.

The surfaces of kaiju monsters were irregular and complex, with steely eyes, horns and fangs, and even hair, giving them a sense of organic reality. The Thunderbirds machines featured realistic hardware such as working engines and retracting landing gear; they also featured realistic signage, markings and weathering from exposure to the elements.

It all came down to "texture." Kids demanded it in their entertainment. And this is key to understanding the 1970s giant robot anime boom.

In the 1960s, the animated "Tetsujin 28-go" and the live-action "Giant Robo," both creations of the manga artist Mitsuteru Yokoyama, represented the entirety of the robot genre. They featured giant robots that were piloted by young boys using a remote control system. And both featured human-like eyes with distinct pupils. These two key features of Sixties robot entertainment would be entirely abandoned by Seventies robot shows.

In order to analyze the giant robot anime boom of the early 1970s, one must first understand several key social trends of the late 1960s, which I will summarize here.

The early 1970s ushered in another paradigm shift for the world. The publication of the Club of Rome's scathing report "The Limits to Growth" cast grave doubt on the bright future promised by science.

In 1969, the Apollo program, designed to build national prestige for the USA during the cold war, successfully landed a man on the moon. The following year marked the opening of Japan's first large-scale international exposition in Osaka. Convened under the theme "Peace and Prosperity for Humankind," huge lines formed as visitors queued to see a sample of moon rock. Yet this moment would represent the end of the age of unbridled scientific promise.

In contrast to the newfound prosperity of Japan, the threat of worldwide nuclear conflict between Eastern and Western superpowers only deepened, and America found itself increasingly bogged down in the war in Vietnam. In Japan as well, the amendment of the US-Japan Security Treaty sparked fierce political conflict and social strife, as the children of the postwar baby boom launched an antiwar protest movement. The large industries that had supported Japan's rapid economic growth were now

condemned as polluters and environmental destroyers.

The turmoil welling up in society had an inevitable impact on children's programming as well. "Weekly Shonen Magazine" had been created to appeal to baby boomers as children. Following its readers as they aged, in the late Sixties it shifted course towards content for an older, teenage audience. One of the results was the emergence of "gekiga," dramatic works similar to what Americans refer to as "graphic novels." Artists whose popularity had flagged when children "graduated" from kashibon (rental comics) to television began creating stories filled with dark social satire. The vibrantly rough linework and storylines of gekiga captivated young men of the day.

Gekiga had an impact on anime art and production methods as well. Animators had struggled to replicate the realism of tokusatsu filmmaking, but the introduction of a device called the trace machine revolutionized the industry. It used a thermal carbon-copy system to transfer all the nuance and delicacy of pencil lines directly to cels, allowing animators to capture a "gekiga touch" in their work.

After trace machines debuted, the percentage of sports, yokai, and gekiga-based anime began increasing as well. The rough feel of gekiga was a perfect reflection for the atmosphere of the day, with its skies and rivers darkened by pollution.

Anime with gekiga-inspired linework appeared one after the other, many becoming hits. 1969's "Tiger Mask" (Ikki Kajiwarra / Naoki Tsuji) is a perfect example. (The roots of the Seventies most popular live action hero, "Kamen Rider," can be found in this masked, belt-wearing wrestler character.)

In this way the dramatic societal changes of the 1960s combined with the rapid development of television culture set the stage for the paradigm shift of the 1970s.

2.3. The 1970s: The Rise of Robot Anime as a Genre

The giant kaiju monsters, heroes, and machines that rose to popularity with mid-1960s tokusatsu shows formed the "soil" from which robot anime would bloom so vibrantly in the 1970s. Robot anime did not develop in a vacuum as an independent, isolated creation of the animation industry. This is difficult, if not impossible, to appreciate simply by looking at a year-by-year chronology of anime releases. Cultural research in the media arts requires cross-referencing the subject with adjacent genres.

At first, anime suffered in comparison to tokusatsu productions, but overcame near-defeat by incorporating the weapons of its "enemy" into its own industry. This "synchronization" is one of the reasons for the independent vitality of domestic anime culture. It is important to view these competing genres in how they interacted and

influenced one another.

The early 1970s marked another stage in the evolution of robot animation. The turning point came in 1972, with the broadcast of the television series "Mazinger Z" (based on a comic by Go Nagai).

The show marked the dawn of the robot anime era. The robot characters of these shows differed from their Sixties counterparts in three main ways. 1970s robot anime characters are defined by:

- 1) Their giant size
- 2) The fact they were piloted rather than controlled externally
- 3) Their ability to transform and/or combine

These characteristics led to a new development: the shows acting as vehicles for toy sales. It also occurred in parallel with the trend of "motorization" – the spread of personal car and motorbike ownership in Japan. This image of robots as drive-able vehicles proved irresistible to a new generation of young viewers.

The robot anime genre, which includes long-running hits such as "Mobile Suit Gundam," boasts the longest success and the most original productions of any genre in the anime industry. The success of this business model can be traced directly back to 1972. In order to understand this sea change, one needs to understand the importance of "TV manga" in the early Seventies.

1971 marked a continuing fad for sports manga and what is now known as the "second kaiju boom." This latter trend centered on popular shows showcasing giant heroes, such as "Spectreman" and "Ultraman Returns," but the real star of the era was a human-sized morphing hero called "Kamen Rider" (Masked Rider), created by Shotaro Ishimori. The show of the same name is responsible for kicking off a "henshin (morphing) boom" that would become the mainstream of "TV manga" pop-culture.

In Kamen Rider can be found a key symbol of the 1970s zeitgeist: the appearance of a mysterious organization called "Shocker" as the show's antagonist. Shocker can be seen as a metaphor of the evils perpetuated by industries during Japan's high growth phase. In fact, in the original comic series that was used as the basis for the show, Shocker is actually described as being a shadow branch of the Japanese government.

Big business had been treated with great deference in the 1960s, but by the 1970s had come to be perceived as the culprits for all that was wrong with society. These changing societal values began affecting the TV business as well. 1960s children's shows, anime included, were generally supported by single national sponsors such as

food, candy, or beverage companies. However, this sole-sponsor system dramatically limited their content.

Mainstays of 1960s TV programming, such as variety shows and quiz programs offering prizes like new household appliances or a year's supply of a given product, quickly began falling out of favor in the 1970s. The nation had by this point emerged from postwar poverty into a widespread middle class mentality; the concept of consumer products as an unreachable dream (a dream reinforced by their appearance as coveted prizes on game shows) had given way to consumption as a fact of daily life.

These changes in society rocked the anime production business model to its core; the disappearance of national sponsors for anime series had dire implications for the survival of the anime business. Robot anime emerged from this growing sense of crisis.

1972's *Kamen Rider* deeply influenced the animation industry. Its format – in which an evil organization dispatched new minions that were in turn defeated by the hero week after week – quickly became the anime industry standard formula as well.

The first anime show to employ the formula didn't actually feature any robots at all: a 1972 TV series based on Go Nagai's manga *"Devilman."* That November, another famed anime series featuring the format debuted as well: *"Kagaku Ninjatai Gatchaman"* (Science Ninja Squad Gatchaman), a fusion of Japanese ninja legend and sci-fi chic. Inspired by an early-Sixties live-action series called *"Ninja Butai Gekko"* (aired abroad as *"Phantom Agents"*), Gatchaman featured a team of five teenagers who morphed into superheroes to fight giant robot monsters. Its success inspired legions of imitators both in the anime and the tokusatsu industry, eventually giving rise to the *"Super Sentai"* (Power Rangers) series of shows. Gatchaman represents one of Japanese pop culture's single most pivotal and influential series.

Another hallmark of the Seventies is the widespread adoption of color television. The last black and white anime series, *"Chingo Muchabe,"* aired in 1971. By 1972, every anime series was being produced in full color.

Anime studio Tatsunoko Productions was especially successful at creating content suitable for this new all-color era, starting with its World War II *"Animentari Ketsudan"* (*"Ani-documentary: The Decision"*) the year before. In addition to trace machines, the studio introduced a number of "special effects" to its cel animation, including the use of sponge- and brushwork to give scenes a rougher texture and airbrushes for color gradations. This allowed them to give weapons a realistic metal sheen, enhance explosions for dramatic effect, and even portray tracer bullets streaking from machine guns. The effect simply blew old-fashioned flat-plane animation out of the

water. "Gatchaman" represented the first science-fiction series to which Tatsunoko applied their cutting-edge techniques.

This marked the beginning of the golden era for animation, as the quality, realism and sheer presence of animated heroes and their gadgets surpassed that of tokusatsu for the first time.

These advances didn't occur in a vacuum. The rapid change was sparked by a host of factors including tokusatsu shows such as "Ultraman" and "Thunderbirds," changes in children's weekly magazines and other mass media, and growing turbulence in society at large, and dramatically fueled by the demands of an increasingly competitive business.

This evolution of both anime and tokusatsu entertainment proceeded in step with the mental and physical development of what were called "TV kids," the first generation of Japanese raised from infancy with television in their lives. The changes in entertainment were driven to a large extent by the changes in this demographic as it aged. The vast majority of Japan's current crop of top creators, now in their 40s and 50s, undoubtedly experienced this evolution themselves, in real time.

The above trends converged in a series called "Mazinger Z," which established a process that would produce a great many new robot anime shows.

The predecessor of "Mazinger Z," "Tetsujin 28-gō," established the concept of a series centered on a giant robot hero. But "Mazinger Z" added two unique new marketing points to the paradigm established by its ancestor.

The first was the union of man and machine, by placing the pilot inside the robot itself. The second was dropping the black pupils that suggested humanity in previous robot designs.

The combination of these two new elements represented the transformation of the giant robot into a "morphing" hero. And the lack of pupils placed them squarely within the design trend of popular live action heroes such as Ultraman and Kamen Rider.

In fact, looking back, these two elements clearly illustrate the reason why robot anime transformed into the strongest genre the Japanese anime industry had ever seen. To use the metaphor of a relay race, anime and tokusatsu shot out of the gate together in the early days of postwar entertainment, handing off the baton to their respective successors as the field grew. Robot anime emerged as the "anchor" of the anime industry.

Mazinger Z represented the first "total package" of hit elements that would come to define sci-fi entertainment for kids.

His arsenal included beam weapons in addition to punching and slicing attacks. It also included weapons with a certain degree of scientific believability, such as the "Rust Hurricane," a fierce, highly acidic wind that dissolved enemy armor. The scenes of the base's pool opening to launch the pilot's "Hover Pilder," and its docking with the Mazinger Z robot itself, had a decidedly "Thunderbirds" flair. And the enemy side incorporated otherworldly, yokai-like (monster-like) designs, such as humans who had been rebuilt into new forms or fused with animals.

This trend of integrating "hit elements" would only increase as robot shows began to dominate the airwaves, promoting the growth of the genre as a whole.

One particular "Mazinger Z" product represented a groundbreaking development in the anime business: zinc alloy diecast toys. Sold under the brand name of "Chogokin" by Popy (later merged with its parent company Bandai), Mazinger Z products quickly racked up record-breaking sales, forming a cornerstone of the robot anime success story.

In the storyline of the anime, Mazinger Z was described as being made of a fictional "super-alloy" called "Chogokin Z." Forged from "Japanium" ore, it generated "photonic energy" that made Mazinger Z far more powerful than the monstrous robots of the enemy side. The reason the enemy continued its attacks on the protagonist's Photonic Energy Research Institute was to steal this unfathomably powerful material.

Popy manufactured its groundbreaking Mazinger Z figurine out of diecast alloy, perfectly echoing the fictional character's sense of metallic sheen and weight. By conflating the real-world and fictional Chogokin material into their product, Popy had hit on a marketing hook that made their figure an incredibly coveted item. In other words, once again it all came back to the fetishization of "texture."

For the first time, a single consistent element, in this case Chogokin, permeated the entire experience, from the storyline to the visuals to the toys sold to the viewers. This is both why the show became such a hit and how it came to represent a pillar of the new anime business strategy. It represented a series whose abstract appealing elements had been collected into a single overarching story. In essence a system had been created where the viewer's identification with the protagonist directly fed into passion for the products.

This system remains the dominant model for the anime business to this day, and Mazinger Z represents the first time all of its pieces truly came together.

The backdrop for this new development was a dramatic shift in Japanese society called "middle class-ification," which meant the average Japanese finally had the financial wherewithal to buy toys for their children.

In another example of this trend, the educational branch of Ricoh joined as one of the sponsors for Mazinger Z's sequel "Great Mazinger." In the immediate postwar era, protecting children from starvation or disease had taken precedence over schooling, but by the 1970s Japanese had grown wealthy enough to prioritize education.

It is in this way that, beginning in the 1970s, anime series came to be supported by multiple sponsors, generally centering on a toy company. As these groups began commissioning original content rather than relying on pre-existing comic book series, they fostered another revolution in the anime industry; the upending of the aforementioned "primary/secondary" paradigm.

Before the 1970s, the animation itself represented the primary product, with toys and other character merchandise representing secondary products. In this system, the creators of the original content - comic book artists - represented the core of the business model.

Only so much could be expected from the food and medicine companies that represented the main sponsors of the era. But toys represented a much more direct means of linking a sponsor company's product to its consumers. It allowed toy company sponsors to produce what amounted to 30-minute toy commercials, and sparked the revelation that comic book creators weren't truly essential to the process after all.

The 1960s represented the dawn of multimedia merchandising. In spite of the fact that televised anime clearly represented the more popular medium, the original comic book was treated as the primary work. However, the 1970s ushered in a totally new business philosophy. Neither the comic book nor the animation represented the primary product. The toys did. If toys represented the primary business endeavor, the anime show represented a secondary marketing campaign for them. This realization is what made the Chogokin toys from "Mazinger Z" such a success.

This ushered in an era of original robot anime series created expressly for the purpose of selling toys. The first debuted in April of 1975. It was called "Yūsha Raideen" (Brave Raideen).

The anime was produced by Tohoku Shinsha, who held the rights to "Thunderbirds," and the merchandise was produced by Popy as part of their Chogokin brand. Soeisha Sunrise Studio (the forerunner of modern-day Sunrise) handled the animation, with Yoshiyuki Tomino directing and Yoshikazu Yasuhiko handling character design. The series is also significant as the first robot series to be made by the team that would later go on to create "Mobile Suit Gundam" in 1979. The story was credited to Yoshitake Suzuki, an anime scriptwriter who had founded the "literature department" of Mushi

Productions. This team is a major reason why Raideen is considered the anime world's first truly original series.

Raideen established several key concepts that would turn into archetypes for late-Seventies robot anime. The first was the consideration of merchandising potential from the very beginning of the process, creating a hero robot character with "play value" as a product. This required thinking up a central "gimmick" that would give the robot a valuable sales hook when sold as a toy.

This isn't to say that earlier robots such as "Mazinger Z" lacked play value as toys. The Mazinger Z Chogokin featured a spring-loaded "rocket punch" gimmick, for example. However, the character's core feature – the pilot docking a hovercraft-like "Hover Pilder" in Mazinger's head – wasn't clearly understood in terms of play value. Another version of the character, a sixty-centimeter (two foot) tall "Jumbo Machinder Mazinger Z," also became a major hit. Its main play value involved the ability to swap its arms out for various weaponry, a feature that didn't appear in the anime show at all. The appearance of this original gimmick introduced by the toy manufacturer represents their dawning realization of the importance of being involved in developing the characters themselves.

In spring of 1974, the first of the "gattai" (combining) robot characters debuted. Called "Getter Robo," it was created by Go Nagai, the same man who had created Mazinger Z. It featured three spacecraft called "Gett Machines" that could combine in three different ways to create three different giant robots: Getter 1, 2, and 3. Its visuals were extremely cutting edge for the time, and it represents the ancestor of all combining robot designs. However, the combination was only possible via the "magic" of animation, more of a metamorphosis than a mechanical docking sequence. This made it virtually impossible to replicate as a three-dimensional object. The best Popy's engineers could manage was a toy of the Gett Machine "Eagle" that transformed into a facsimile of Getter 1's head. This led to toy manufacturers pushing to close the gap between the on-screen portrayal and the merchandise.

Katsushi Murakami was the man behind many of the Popy (Bandai) Chogokin success stories. Trained as an industrial designer, he began his career at "Terebi Manga" (TV Manga) magazine. One of his earliest designs was the "Raijin-gō," a flying car driven by the hero of the tokusatsu TV series "Inazuman." He would come to play a central role in the Raideen production as well. He oversaw its design, ensuring that a humanoid robot (Raideen) could actually transform into a flying mode ("God Bird"), so that the accuracy of the toy as compared to its on-screen counterpart could be used as a

marketing hook. This was a first in the world of robot anime.

Raideen's design is officially co-credited to Katsushi Murakami, Studio Nue (Kazutaka Miyatake and Naoyuki Katoh), and Yasuhiko Yoshikazu. In other words, it represents the collaboration among an industrial designer, a pair of sci-fi visualists, and a character designer. This system would rise to great prominence during the robot anime era.

Raideen represented a situation where an all-original concept was "filtered" through the particular expertise of each of the development team members. This resulted in a "trifecta" of a design with play value, set in a unique world, that was in turn easy to control. This added value not only made the series a hit, but also represented a watershed moment for the genre. From this point forward, the business model for creating televised anime productions would center on toy companies.

A revolution was brewing in the demographics of anime viewers at this time as well. Until this point, anime had been designed for elementary schoolers; once they reached junior high they were expected to grow out of the viewership. This new generation of children, however, appeared to be flouting these expectations, choosing instead to continue watching anime as junior and even senior high schoolers. They represented a generation that had experienced 1963's "Tetsuwan Atom" at a very young age, and their evolving interests would come to have a large impact on the development of robot anime as well.

1974 also represents the debut of the anime TV series "Space Cruiser Yamato." A theatrical version would be released in 1977, sparking a fad among teenagers that was widely reported in the mass media of the time. This phenomenon formed the soil from which Japan's first dedicated anime magazine would emerge in 1978. It was the dawn of Japan's "anime boom."

The success of Raiden established a pipeline for original robot anime productions not only from a business standpoint but from a storytelling one. Director Tadao Nagahama, who joined the series for its second half, was a veteran who had directed episodes of the smash-hit sports anime "Kyojin no Hoshi" (Star of the Giants.) While maintaining the basic self-contained "hero robot defeats monster robot" arc of each episode, he introduced larger themes such as the world's mythology and the drama of the hero's reunion with his mother. Raiden's dramatic style laid the groundwork for later narrative-driven fare such as "Gundam."

Many in the anime industry derided these shows as vulgar "30 minute toy commercials," but an undeniable vitality and creative freedom began to emerge in the

genre as well. So long as robots were given center stage, nearly any content was fair game. Even highly original, unpredictable dramas. This freedom served to stimulate the shows' creators all the more.

This magnanimity on the part of the toy sponsors essentially made them patrons of the artists. Following Raideen, "Chodenji Robo Combattler V (Supermagnetic Robo Combattler V) debuted in 1976 with virtually the same staff, including Tadao Nagahama at the helm and Yoshikazu Yasuhiko handling character design. Combattler centered on five vehicles that combined into a giant robot, with the idea being that the toys would replicate the combination just as it appeared onscreen. The resulting animation ended up taking some stylistic liberties that were hard to match in reality, but the sequel, "Supermagnetic Robo Voltes V," marked the first time the toys and onscreen portrayal of a robot character truly matched.

Director Nagahama turned "Combattler V" into a grand morality play, focusing on the antagonist General Garuda's tragic circumstances to the point where they practically overshadowed the drama of the heroes. The use of "beautiful boy" character designs proved extremely popular among female fans. Nagahama turned this up another notch in the sequel, "Voltes V." He portrayed a brother-against-brother melodrama in which noble villain "Prince Heinel" (known as "Prince Zardoz" in foreign versions) was played up to near-mythological status in a metaphor for the legendary Japanese hero Yamato Takeru.

In this way, robot shows blazed a new path for dramatic storytelling in anime. In the "post-Yamato" era, fans demanded original series with new plot twists, allowing screenwriters to inject unheard-of levels of drama into the robot shows. It had been established that the middle-to-late teen demographic demanded dramatic situations that they could empathize with, set in a believable world. Perhaps nowhere did this trend crystallize so purely as in 1979's "Mobile Suit Gundam."

On the one hand, in the 1970s robot anime was generally poorly received by society at large. Established sci-fi authors derided it as "robot pro-wrestling." Even shows with well-executed sci-fi elements took criticism for what were considered formulaic, cookie-cutter storylines. Even many modern critics tend to lump pre-Gundam shows together as simple "good triumphs over evil" stories.

The fact is, however, each of these productions injected its own unique creative elements into the "bloodstream" of the anime medium. In real-life pro wrestling, wrestlers can't fire off their fists or fly through the air. But robot anime battle scenes required more imagination, and gave choreographers a great deal of creative freedom

for the visuals. And a variety of dramatic techniques were introduced from a story standpoint as well, such as making the protagonist of the same bloodline or race of the enemy to heighten the tension. A detailed exploration of each of these elements is a subject for future researchers. But just as the theory of evolution is survival via the reproduction of those best adapted to ever-changing environments, it is this report's stance that no anime trend developed spontaneously without influence by its predecessors.

Still, there's no denying that the robot anime series of this era generally played out according to a set formula. A heroic pilot would board his robot to fight a different enemy robot or monster every week. The archetype of launching from the base, struggling against the enemy, and finally conquering it with some new secret weapon indeed formed the backbone of many robot shows. The formula established by Ultraman and Kamen Rider proved quite difficult for robot anime to escape – one might even call it a "curse."

The reason for this is that, unlike their remote-controlled and autonomous Sixties predecessors, the piloted robots of the Seventies represented a fusion of human and hero. They were an animated metaphor for the elements of "henshin" (morphing) and of growing to titanic size established by tokusatsu series. Even that hallmark of Seventies robot designs, the lack of pupils in the robots' eyes, can be traced back through morphing tokusatsu heroes all the way back to the 1950s live-action TV drama "Gekkō Kamen" (Moonlight Mask).

America's most famous superhero, "Superman," fought without a mask. But in Japan, masks have always been key to a hero's identity, even as far back as the 1930s hit "Kaiketsu Kurozugin" (The Black Mask). The concept of a hero who concealed his true identity to fight under another deeply appealed to Japanese audiences, as can be seen by the long-running success of shows such as "Mito Kōmon." The pupil-less design of giant robots' eyes is a clear link to the lineage of these masked heroes.

However the mixing of pre-existing "hit elements" can sometimes result in a chemical reaction that creates new things. In the giant robot context, the heroes represented a metaphor for strength. There was nothing new about this in and of itself, but the mixing in of "rideability" – the idea that humans piloted the robots – elevated the morphing concept from pure fantasy into something approaching reality. This sense of reality is why animated robots came to overtake their tokusatsu counterparts.

The peak of robot anime as a pillar of kids' TV programming came in 1976. Seven new giant robot series debuted this year: "Daikūmaryu Gaiking," "Gowappa 5 Gōdamu," "UFO Senshi Daiapolon," "Chōdenji Robo Combattler V," "Groizer X," "Blocker Gundan

IV Machine Blaster," and "Magne-Robo GaKeen."

The success of "Mazinger Z" spawned a 1974 sequel called "Great Mazinger," and a third show in the series, "UFO Robo Grendizer," debuted in 1975 and continued to air through 1976. In other words, a grand total of eight shows featuring giant robots were airing simultaneously.

This period was marked by both a comparatively high number of anime-original productions and the appearance of groups of interrelated series. "Play value" took center stage as toy manufacturers devised new marketing hooks to differentiate their toys in an increasingly competitive marketplace. Combattler V had been designed by Popy around the gimmick of combination. Gaiking, another Popy creation, was a robot formed from a transforming dragon's head. The live-action "Daibaron" featured several vehicles that combined into a giant robot; it was marketed by toy company Bullmark using the word "Gasshin," a portmanteau of the Japanese words "henshin" (morph) and "gattai" (combination). And GaKeen, the brainchild of a toy company called Takara, featured a unique "Magnemo" system of magnetic ball-joints.

1977 marked the debut of six new robot series: "Wakusei Robo Dangard A," "Gasshin Sentai Mekanda Robo," "Chōmajutsu Gattai Robo Gingaizer," "Chōdenji Machine Voltes V," "Chōjin Sentai Baratak," and "Muteki Chōjin Zanbot 3." It also marked the bankruptcy of toy manufacturer Bullmark. But in 1978, this dropped to just three new series: "Tōshō Daimos," "Muteki Kōjin Daitarn 3," and "Uchū Majin Daikengo." The trend continued in 1979, with just three new shows. By this time, Toei Dōga (now Toei Animation) – who had originated the robot genre with "Mazinger Z" – began to cut its ties as well, choosing instead to air a series called "SF Saiyūki Starzinger," a sci-fi retelling of the Chinese classic "Journey to the West."

It is at this time that children's ever-wandering eyes began to move from animated creations to the real-life luxury sports cars known as "supercars" in Japan. Toy companies began shifting sponsorship from robot series to those featuring cars instead. But this fad for supercars would be short-lived.

In 1977, the theatrical version of the anime series "Space Cruiser Yamato" became a smash hit, followed in 1978 by the Japanese release of "Star Wars," the live-action sci-fi film that had swept America the year before. The massive success of these two productions kicked off a "sci-fi boom" in Japan. By this point the popularity of robot anime was declining from an industry standpoint, but Sunrise bucked the trend, going independent from its parent company Tohoku Shinsha and reorganizing under the name Nippon Sunrise. Joining forces with a toy manufacturer named Clover, Nippon Sunrise debuted their first independent original anime production in fall of 1977:

"Muteki Chōjin Zantō 3" (Super Machine Zantō 3).

Zantō 3 featured a giant robot formed from three smaller vehicles. Three comononents, rather than the then-standard five as had been used in Combattler V and Voltes V, were believed to be a sounder investment from a business standpoint. But the show is perhaps best known for director Yoshiyuki Tomino's drive to make it as realistic as possible. Tomino's portrayal of the fallout of warfare – the fallen soldiers, the civilian casualties, the refugees - sent a shockwave through teenaged anime fans who had grown tired of stagey melodramas centering on beautiful young characters. For this and a variety of reasons, not least of which because it featured character designs by Yoshikazu Yasuhiko, Zantō 3 represents the direct ancestor of 1979's "Mobile Suit Gundam."

At the same time, a handful of shows centering on human-sized robotic protagonists were on the air as well. These included "Robokko Beeton," a 1976 Sunrise co-production featuring Yasuhiko's handiwork; the sister title to "Tetsuwan Atom," 1977's "Jetters Mars"; and a remake of "Tetsuwan Atom" itself in 1980.

But the hands-down winner in this subgenre was Fujiko F. Fujio's "Doraemon," the second series of which became a smash hit in 1979. The first run of the show in 1973 had been a little ahead of its time, but its creators reworked and refined the "boy and his robot" concept to great success in 1979. In this way, the 1970s marked the evolution of the robot into a vehicle or a friend, pushing the boundaries of anime culture.

2.4. The 1980s: The Co-Evolution of Robot Anime Storytelling and Visuals

Today, 1979's Mobile Suit Gundam represents robot anime's biggest hit, a success to the point where it has become a genre unto its own. Although it debuted in 1979, it wasn't until the following year that the plastic models based on the series became hits, or until the release of the three-part theatrical edition in 1981 that the series itself achieved truly massive success. For this reason, this report treats Gundam as an Eighties phenomenon.

The consecutive hits of the mecha-heavy films Star Wars and Space Cruiser Yamato established a marketplace for original anime aimed at the "middle teen" (middle/high school student age) demographic, but Gundam represents the true origin of the trend, and the establishment in 1978 of Tokuma Shoten's "Monthly Animage" magazine its maturation.

This signaled the end of the era in which anime, tokusatsu, and puppet-based series were simply lumped together as "terebi manga" (televised comics) and ushered in was came to be known as the "anime boom." The debut of "Animage" embodied this shift.

The reason being that its parent company, Tokuma Shoten, also published a magazine called "Terebirando" ("TV Land") that covered "terebi manga." The independence of "anime" from "terebi manga" as a genre and market can be seen in the difference between these two magazines.

The establishment of anime magazines and "mooks" (a publication unique to the Japanese marketplace that combined features of magazines and books) provided the language for categorizing, organizing, and researching animation, fostering its widespread acceptance as a distinct culture rather than simply another medium. This in turn contributed greatly to the recognition of anime shows and films as distinctive artistic works created by specific creators.

Prior to the establishment of mass-market anime publications that evaluated the medium in a unified way, there had been very little recognition of anime as an artform. The transformation was nothing short of miraculous. Only a short time earlier anime had been dismissed as kids' stuff or commercials for merchandise; now it was regarded as a new artform that was captivating the youth of Japan. And within this artform, the robot anime TV shows, with their originality and distinctive directorial signatures, played an outsized role.

Put another way, a major reason that the efforts of creators during the early years of the robot anime boom were unfairly dismissed as kids' stuff is because they debuted before anime magazines existed to contextualize them. The negative attitude towards all but a handful of well-regarded works can only be explained as a form of bias.

Prior to the creation of anime magazines, the anime industry placed more of an emphasis on characterization than it did on a series' content as a whole. In the era before the establishment of marketing schemes based on profiting from character merchandise (the secondary product), audiences tended to view productions in this way as well. Even in the robot anime medium, the use of expressions such as "hero mecha" or "hero robot" show just how seriously they were taken as characters in and of themselves.

However, the emergence of the anime as the primary product in and of itself allowed companies to target the youth of Japan (and their disposable income) directly, initiating fundamental changes that would transform the anime business.

Space Cruiser Yamato, whose popularity played a key role in the founding of anime magazines, had failed to find its audience on television, but achieved stunning success when re-cut into a theatrical film. This symbolizes the paradigm shift that occurred in the industry, upending the merchandising-driven business model for one in which the

desires of the audience began playing a key role. Television series required deep-pocketed sponsors to purchase airtime for the shows, meaning that the merchandise – the secondary product - always came first. But theatrical productions, on the other hand, were driven by ticket sales, giving audiences a direct say and allowing the films themselves to compete on their own merits, as primary products.

1979's Mobile Suit Gundam followed in the path of Yamato's success, pointing the way to the future. Its deliberate and deft appeal to the mid-late teen audience makes it the first production from the new era to come. The man at its center was creator/director Yoshiyuki Tomino.

One of Tomino's key contributions to the genre was his deliberate rejection of the term "robot" as a relic of the previous era of shows. He dubbed the giant machines in Gundam "mobile suits," a phrase inspired by the "powered suits" that played a central role in Robert Heinlein's 1959 sci-fi novel "Starship Troopers."

He then took this a step further by portraying the protagonist's mobile suit not as a hero but as a weapon in an all-out war between space colonists and the Earth Federation. And the enemy mobile suits, called "Zaku," were mass-produced industrial products like aircraft or tanks. In this way Tomino successfully forged a new path away from the traditional "hero robots vs. monster robots" plots of early robot anime productions.

Gundam shattered the routine into which the robot anime genre had fallen, re-evaluating the unnatural, theatrical formula of its predecessors and ushering in a new era in which "realism" would reign supreme. This is why Gundam is called the very first entry in what would soon be known as the "real robot" genre.

The main sponsor for the original Mobile Suit Gundam television series was a toy company named Clover, whose participation was contingent on their selling a quantity of toys based on the show. As such they dictated the "play value" of the designs. Each of the show's three main mobile suits – Gundam, Guncannon, and Guntank – incorporated a "Core Fighter," a small aircraft that transformed into a "Core Block" that connected the robots' upper and lower torsos. This allowed them to be combined in any of nine different patterns, giving Clover a marketing hook for its products.

However, this feature didn't appear in the television show at all. This highlights a growing friction between the toy company, which wanted specific performances from the robots to promote toy sales, and the creators of the show, who wanted a higher degree of realism for their the story. As a result toy sales suffered, leading Clover to withdraw its sponsorship 43 episodes into what was supposed to be a 52 episode series. Even still, the operatic arc of the show, with its deep historical drama and vivid battle scenes,

combined with the realistic portrayal of the mobile suits to blaze a new trail for robot anime.

An artist named Kunio Okawara oversaw the series' mechanical designs. He struggled under the requirements to incorporate the toy sponsor's requested play value into the heroes' designs, but was given free reign to flesh out Director Tomino's concept for the enemy Zaku. Yoshikazu Yasuhiko served as both character designer and animation director, making sure that a single theme unified the characters and the mecha. Under his supervision, Gundam moved in a beautiful and lively way, while a heavier touch was used for the Zaku units to emphasize their power as enemy weapons.

The cathartic nature of Gundam's appearance in each episode places the series along the continuum of its super robot predecessors. But it also incorporates aspects of later "real robot" shows, making it a singularity that links "super" and "real" robot anime eras. The importance of the series would be made clear after it ended its broadcast run in 1980.

The Gundam TV series had suffered from low ratings and sluggish toy sales, but proved popular in the anime magazines, and its "high target" merchandise such as records sold briskly. It was the first series whose popularity began to match its value as a production.

In July of 1980, almost six months after the show had ended, toy company Bandai announced the release of a series of "plamodels" (plastic model kits) based on the Mobile Suits from the series. The appearance of merchandise from a "failed" show so long after its end, and by a company that hadn't even been a sponsor in the first place, was almost completely unprecedented.

For its part, Bandai's experience with its successful Space Cruiser Yamato model series led it to believe that the "White Base" and "Musai" space battleships from Gundam would be top sellers. But in reality, the 300 yen kit of Gundam itself proved so popular that stores could barely keep them or its rival Zaku on their shelves, resulting in continued shortages.

There are a variety of reasons why these kits proved so popular. The use of the military-style 1/144 scale gave the fantastic designs a sense of reality that had never been seen in the Japanese sci-fi world before. The epic war of independence portrayed in Gundam echoed real-life military conflicts and proved popular among the same demographic who built scale models of World War II vehicles. These consumers had already been "scratch-building" their own Gundam models, and even after the official model kits debuted, would customize them with weapons and other gear cobbled from real-world military kits. Before long, model-making magazines began featuring

examples of mobile suits re-envisioned with more realistic military color schemes, featuring "battle damage" and weathered with rust and dirt to accentuate their sense of realism.

The series' portrayal of the "evolution of humanity" combined with the precision of the plastic model kits and the viewers' ability to freely customize them to spark a nationwide Gundam fad.

When the Gundam series re-debuted in 1981 as a trio of theatrical movies, it resonated with the already popular model kits to create a record-breaking hit of unprecedented proportions. The films omitted several mechanical concepts that had been imposed on the TV series in an attempt to raise flagging toy sales. This removal of any unnecessary merchandising elements illustrates how dedicated the creative team was to making their film the definitive, most realistic portrayal of the world they had created.

The resounding success of the movies had the effect of luring in elementary schoolers who hadn't paid much attention to the diecast toys from the show when it first aired. Huge lines snaked out of toy stores as kids queued to purchase the model kits. The participatory, interactive nature of customizing the series' robots to their own personal specifications proved irresistible to Japanese consumers. It represented an entirely new way of enjoying robot anime.

The huge success of synchronizing anime production and merchandising had the effect of energizing the entire anime industry. The anime boom that had been touched off by the "Space Cruiser Yamato" movies kicked into high gear. Thanks to Gundam's success, the number of anime magazines skyrocketed, as did sales of related merchandise such as record albums. A variety of new anime productions centered on Gundam-styled plastic models emerged as well, expanding the genre into new territory.

The mutual relationship between robot anime of this time period and tokusatsu productions merits further exploration here.

Toei's 1979 TV series "Battle Fever J" was as much of a milestone for the tokusatsu industry as Mobile Suit Gundam had been for anime. It aired in the TV timeslot just before the anime show Daimos, and it represented the first tokusatsu production to add giant robots to the colorful heroes of the "Super Sentai" series – the predecessor of what would later find great success abroad as the "Power Rangers" series.

In this same year, Toei debuted "Spiderman," s live-action series based on the famous American superhero. Although licensed from Marvel Comics, it incorporated an all-new plotline and story elements, including a giant robot called "Leopardon." The Chogokin

toys produced by Bandai of the robot racked up record-breaking sales, leading the producers to apply the same formula to the Super Sentai series. The show immediately following Spiderman was the animated "Mirai Robo Daltanias" (Future Robo Daltanias), this established a precedent of airing anime and tokusatsu broadcasts interchangeably.

The Super Sentai series continued in an unbroken line for the following 34 years, each prominently featuring a giant robot. This use of giant robots to appeal to the preschoolers that represented the Super Sentai series' main audience represents cross-pollination from the anime world. Coming full circle, tokusatsu also represents the last bastion of giant robot productions in Japan today, amidst a declining birth rate that has reduced the audience for robots to the point where only a handful of new shows now debut every year.

In another example of cross-pollination, "Daltanias" pioneered the incorporation of a lion-shaped robot into its combination scheme, an innovation that would deeply influence the Super Sentai series. So far as toymakers were concerned, it didn't matter if a robot originated in anime or tokusatsu; just as the "terebi manga" moniker had encompassed both live-action and animated shows, robots represented a singular type of merchandise. In this way, the evolution of giant robots continued to unfold on two separate but related "stages" of anime and tokusatsu.

1980 marked a year of remakes, including Sixties favorites such as "Tetsuwan Atom" (Astro Boy) and an updated version of the classic boxing anime, "Ashita no Joe 2" (Tomorrow's Joe 2). Among them was a remake of the forefather of all giant robot shows, "Tetsujin 28-gō." Another series based on a concept by its creator, Mitsuteru Yokoyama, would debut the following year: "Rokushin Gattai God Marz" (Six Gods Combined: GodMarz).

The early 1980s represented an era in which the toymakers who sponsored robot anime shows for young boys fiercely competed to establish new play value for their products. 1979's "Tōshi Gordian" (The Gordian Warrior) featured a pilot who "nested" into progressively larger robots, like a Russian Matryoshka doll. 1981's "Gold Lightan" was based on the idea that children were fascinated with the lighters that adults used, and centered on a robot that transformed into a (non-functional) lighter. The toy even featured a gleaming faceted surface evocative of high-end lighters.

The successors to Mobile Suit Gundam represented a return to a younger male audience as well. Many hinged on "what-if?" propositions. The creators of 1980's "Muteki Robo Tryder G-7" (Invincible Robo Tryder G-7) asked "what if a schoolboy-aged company president piloted a robot?" Meanwhile, 1981's "Saikyō Robo Daijōja" (Strongest

Robo Daioja) asked "what if the popular samurai drama 'Mito Kōmon' was set in the future and featured giant robots?" These sitcom-style "what-ifs" expanded the possibilities of the genre by incorporating popular elements into the robot anime formula.

1980 marked the rise of auteur driven robot anime productions. "Densetsu Kyojin Ideon" (Space Runaway Ideon), another series by Gundam director Yoshiyuki Tomino, fused the idea of a robot combined from a military tank, a tractor-trailer, and a schoolbus with that of a giant statue left behind by a long-gone alien civilization, resulting in a robot hero of unbelievable size. Its "Ide" energy source sparks an epic conflict between humans and aliens that unfolds on a massive scale never equaled in anime history. This represented all-new territory for the medium, heralding an era in which the director would reign supreme.

Director Kazuyuki Hirokawa's "Uchū Senshi Baldios" (Space Warrior Baldios), which also debuted in 1980, is another robot anime that utilized a "hard" sci-fi setting. The "alien" invaders turn out to be humans from the far future, driven to the brink of extinction and forced to travel back in time as a last-ditch survival measure, which turns out to be the cause of their downfall in the first place. The producers' confidence in incorporating a classic hard sci-fi time paradox into their storyline illustrates how expectations had grown for robot anime productions and their directors.

But both of these series suffered extremely lackluster toy sales, resulting in their cancellations before the full stories could play out. They had obviously been ahead of their time. Both eventually saw their finales shown not on TV, but as theatrical features. They represent the first and the last of the robot shows that sacrificed "merchandisability" for "content."

In October of 1981, director Ryosuke Takahashi launched his newest production for Sunrise, "Taiyō no Kiba Dougram" (Fang of the Sun: Dougram). This was the first series deliberately conceived as a Gundam-style "real robot" series.

The plot centered on a young man fighting for the independence of a colony world. Both sides fought using giant robots optimized for close combat, just like Gundam. The series heavily focused on the strategy and logistics of warfare, hauling its robots (called "combat armors") into battle with giant military helicopters and trailers. This hyperfocus on realism was so obviously patterned on lessons learned from Gundam that it could be dubbed the "Gundam Method."

The robots and vehicles were designed in a "lineup" that could easily be merchandised as plastic model kits. The central robot, "Dougram," was sold both as a model and a toy.

The toy featured a diecast metal frame covered with plastic armor, a hybrid concept called a "Dual Model" that broke new ground for diecast toys.

The attention lavished on realism, both for the production and its merchandise, blazed a clear trail for the emerging subgenre of "real robot" shows.

In 1979, the year of Gundam's debut, only three competing robot anime series were on the air. In 1980, this rose to five titles and in 1981 to seven. 1982's slight drop off to six titles seemed to indicate the "Real Robot" phenomenon would follow the pattern established during the "Super Robot" era, which had peaked with eight shows in 1976 and then dropped off. But 1983 saw no less than ten new robot anime series, followed by another nine in 1984, handily trumping its predecessor. The period from 1982 to 1984 is widely regarded as the "golden era" of real robot shows and the peak of the anime boom. But 1982 represents a singular year in the history of robot anime.

1982, three years after the initial TV broadcast of Mobile Suit Gundam, was a truly extraordinary year. The output of the star director of the real robot movement, Yoshiyuki Tomino, is illustration enough of this fact. In February he launched his new anime television series "Sentō Meka Xabungle" (Walker Machine Xabungle); in March the third and final installment in the Gundam theatrical series, "Mobile Suit Gundam III: Meguriai Sora Hen" (Encounters in Space).

And in July of the same year, the theatrical versions of Ideon debuted as well. The TV series had been cut short, and Tomino took the opportunity to create a pair of films that allowed him to finish the story he wanted to tell. Called "Densetsu Kyojin Ideon: Sesshoku Hen / Hatsudo Hen" ("Space Runaway Ideon: Contact" and "Be Invoked"), the two films opened in an unprecedented same-day dual release that July. Tomino had successfully launched not one but three historic productions in the space of just six months. The fad was blowing up into a bubble.

The popularity of the Gundam plastic models that underpinning the real robot boom had grown into such a phenomenon that they were now simply known as "Gunpla." As the fad exploded into a full blown fever, a darker side emerged; some stores forced customers to "piggyback" purchase less popular kits to get the ones they wanted, and in an incident widely reported by newspapers at the time, several children were trampled and injured in the rush to purchase Gunpla at a department store.

Still the number of productions continued to increase. One in particular stands out as the jewel of the golden age of real robot anime: the TV series "Chōjikū Yōsai Macross" (Superdimensional Fortress Macross). It is an instrumental series for many reasons, including its incredible popularity among young Japanese and the fact that it has

continued in various forms to this very day.

It debuted in October of 1982. Ichiro Itano, the animator most responsible for the show's robot action scenes, had also worked on Gundam III and Ideon as well. Macross set a precedent where a handful of talented creators came together to create something groundbreaking and new. In addition to Itano, series director Noboru Ishiguro had previously worked on Space Cruiser Yamato, and the storyboards and mechanical design were handled by Studio Nue (in conjunction with Artland), a design collective of artists with extensive backgrounds in creating sci-fi visuals.

In Macross can be seen the maturation of real robot anime as an artform. Its central robot, the "Valkyrie" variable fighter, boasted proportions similar to those of a real-life F-14 Tomcat fighter aircraft. It could seamlessly transform into both a giant robot and an ostrich-legged intermediate mode called "Gerwalk." The design was beautifully rendered in the form of toys (produced by Takatoku) and plastic model kits (produced by three companies: Imai, Aii, and Nitto.)

Shoji Kawamori, design lead for the Valkyrie, was, like Ichiro Itano, still in his early twenties. Inspired by the likes of Yamato and Gundam, he had gone straight from anime fan to anime pro, joining a production company and racking up experience as an animator and designer. His generation had been raised with televised anime as part of their lives since preschool age. In essence their own growth and development had occurred in synch with the growth and development of anime and tokusatsu culture.

This first generation of TV anime fans had quietly formed the core of the Eighties anime creator corps, and Macross represented the first time their sensitivities were given full and free reign.

It represented a confluence of several subcultural fads occurring among anime fans of the time, namely the "lolicon boom" and the "pretty girl boom." Macross' signature combination of robots and pretty girls, centering on a light-hearted love story between a Valkyrie pilot and a female idol singer, tapped into this zeitgeist and gave it near universal appeal among fans. It dominated anime magazines of the day, becoming the standard to which all other robot shows were compared.

The series is also notable for its protagonist's use of the word "otaku." The word, actually just an extremely polite way of saying "you" in Japanese, had been adopted as a pejorative for anime "maniacs" who took their fandom too far. This new wave of anime creators would later come to be called the "first generation of otaku."

Shoji Kawamori was just 24 years old when he directed the 1984 theatrical version of the series, "Macross: Ai Obotete Imasu ka" (Macross: Do You Remember Love?). That such a young man could attain such a position so quickly in his career shows how

energetic and free the genre had become. Robot shows had turned anime into a blank canvas where anything was possible so long as the robots kept selling.

So the word "otaku," which like "anime" has become a popular word in foreign languages as well, actually got a boost from robot anime.

The "Golden era" of 1982 – 1984 didn't include a sequel to Gundam, but the series was kept relevant by the introduction of new Mobile Suit designs via an original "MSV: Mobile Suit Variation" model kit series. These included more realistically envisioned portrayals of the Zaku and other robots, expanding the potential for the series beyond the anime storyline. In a feedback loop of sorts, these original model designs and story ideas would then go on to influence later Gundam anime series.

The serialization of robot anime shows had now become a given. For example, the success of 1981's "Ginga Senpū Bryger" (Galactic Cyclone Bryger) led it to become the first installment in what came to be called the "J9 Series," including "Ginga Reppū Baxinger" (Galactic Gale Baxinger) and "Ginga Senpū Sasuraiger" (Galactic Whirlwind Sasuraiger). Macross expanded into the "Superdimensional Series," which included "Chōjikū Seiki Orguss" (Superdimensional Century Orguss) and "Chōjikū Kidan Southern Cross" (Superdimensional Cavalry Southern Cross).

Shows were serialized for financial reasons, of course, but the practice also had the effect of giving popular directors the chance to develop their own personal oeuvres over the course of consecutive seasons.

For his part Tomino launched one original series after another. He released the Western-themed Xabungle, followed by a swords-and-sorcery styled robot fantasy called "Seisenshi Dunbine" (Aura Battler Dunbine.) He then teamed with the young creator Mamoru Nagano to create "Jūsenki L-Gaim" (Heavy Metal L-Gaim.)

Ryosuke Takahashi announced the debut of "Sōkō Kihei Votoms" (Armored Trooper Votoms), his follow-up to Dougram. The demand for reality in robot anime had reached the point where the name of the hero's robot didn't even appear in the show's title. The "armored troopers" of Votoms, being piloted by low-ranking foot soldiers, didn't even have individual names. Following Votoms, Takahashi unveiled "Kikōkai Gallient" (Panzer World Gallient), a classic boy's adventure set in a traditional fantasy world.

The boundary-pushing nature of each these series thrilled viewers of the day. It was a "honeymoon period" for the robot anime genre, where anything seemed possible.

The success of this business model, in which auteur-driven shows were supported by the merchandisability of robot toys and models, had a far-reaching effect throughout the industry. For example, "Yattodetaman," the 1981 release in the long-running "Time

Bokan" sci-fi comedy series, featured the series' first giant robot, Daikyojin. The trend would continue in the following year's sequel "Gyakuten Ippatsuman."

However, "maturation" inevitably leads to "decline." The honeymoon period wouldn't last long. Over the course of 1983 and 1984, the genre would start showing signs of stress.

Understanding this paradigm shift requires knowing three products so iconic they came to symbolize the 1980s: the Walkman, the home video recorder, and the home video game console. They represented the three status symbols of their era.

The personalization of content consumption had a two-pronged effect of fostering the rise of "indoor kids" – i.e., "otaku" – and fundamentally altering the meaning of television broadcasts. The advent of the video deck meant that a fan no longer needed to station themselves in front of the TV to catch their favorite shows; now the videotaped recordings of the show became objects of fan desire. An "otaku worldview" took root as fans were able to collect and hyper-focus on the content they liked without ever leaving the solitude and safety of their own personal spaces.

Faced with these changes, the anime business found itself needing to switch to a "package-based" format of selling videos instead. The "robots and girls" elements pioneered by the smash-hit Macross played a major part in establishing the value of anime as a packaged product.

This gave rise to the concept of anime distributed without needing an actual broadcast. Eventually, it took the form of a subgenre of direct-to-video productions called "OVA," short for Original Video Animation. They allowed the value of anime productions to be established through direct financial transactions with customers. This obviated the need for secondary products. Anime productions were now competing head to head as primary products in and of themselves. This represented nothing short of a revolution for the anime business.

Bandai released the very first (non-adult) OVA at the end of 1983: "Dallos," co-directed by Mamoru Oshii and Hisayuki Toriumi. It was very much a product of the robot anime era – unsurprising, as anime fans had been among the earliest adopters of the video decks that supported the OVA era.

1983 also marked the debut of another revolutionary home electronic device: Nintendo's "Family Computer," a.k.a. the "Famicom" (released several years later in the US as the "Nintendo Entertainment System.") Video games promised a degree of interactivity that simply couldn't be matched by watching anime or building model kits. "TV Games," as they were called in Japan, first took off among elementary schoolers

and quickly overtook anime as their primary source of entertainment.

As the Famicom thrived, a series of misfortunes befell the anime industry. In August of 1983, the toymaker Clover, which had sponsored shows from *Zanbot 3* to *Dunbine*, declared bankruptcy. And in May of 1984, the toy company that should have profited so handsomely from *Macross*, Takatoku Toys, halted business operations – just months before the debut of the theatrical anime.

OVA's represented the transition of anime from television into a medium in and of itself. But now home video games were dominating television screens across Japan, and the sponsors who had given animators such freedom with their productions were going bankrupt or withdrawing from the business. The effect was to force animators to abandon original productions aimed at a mainstream audience in favor of niche productions aimed at die-hard fans willing to pay high prices for the content.

These two faces of the historical events of the era can be understood by exploring a different facet of the rise and fall of robot anime.

There are several reasons for describing 1984 as the peak of the robot anime phenomenon. It marks the period when major animation studios began prioritizing revenues by assigning top creators to co-productions with foreign studios. This "co-production boom" would continue through 1987-88, when the yen rapidly strengthened; it notably included a robot anime feature that Toei Doga had been hired to create, the 1986 *"The Transformers: The Movie."* And veteran director Osamu Dezaki bewildered domestic fans by choosing to work on the 1986 TV series *"Mighty Orbots"* for the American Saturday-morning cartoon market.

1985 marks the American debut of *"Robotech,"* a series created by combining the three completely unrelated anime shows *"Macross,"* *"Southern Cross,"* and *"Mospeda"* into a single storyline. The series became a big hit, with merchandise produced by the major American toymaker Matchbox. The same year, *"Voltron,"* a series created by combining the unrelated *"Hyakujūō Golion"* and *"Kikōkantai Dairugger XV,"* also debuted to great success. Both were later remade abroad in the 1990s and 2000s without any input from Japanese creators.

This is why it is impossible to decipher the bigger picture simply by looking at the list of domestic Japanese anime shows. Attention also needs to be paid to productions prepared for foreign export that (*"The Transformers"* excepted) were never reverse imported back into Japan because of copyright issues.

The fact that there is very little information available in Japanese about these co-productions, even online, leads many young anime researchers to miss them. But

they had a huge impact on anime culture and represent a key turning point in anime history. They are particularly important because they occurred in parallel with major societal events such as the strengthening of the yen and the rise of the bubble economy. Even within the field of robot anime culture alone, one can see a deep relationship between the genre's rapid loss of steam domestically and its diffusing abroad into foreign markets. This study of robot anime in Japan aims to address this shortcoming.

A great deal of evidence points to roughly 1985 as the turning point into decline for robot anime.

Most symbolic was the activity of the creators of the Gundam series. Yoshihiko Yoshikazu announced "Giant Gorg," an original series written, designed, animated, and directed entirely by him. However, its sponsor felt it didn't offer much in the way of merchandising potential and bumped its broadcast debut from the original pre-Christmas season airdate to spring of 1984. Since the production progressed ahead of schedule, this allowed the "videograms" (VHS tapes) of the series to be sold at the same time the show broadcast on TV, a first in the anime world.

Meanwhile, director Yoshiyuki Tomino's "Kidō Senshi Z Gundam" (Mobile Suit Zeta Gundam) debuted in April of 1985 to great controversy, as he had previously announced that he would never make a sequel to the original Gundam TV series and films. "Space Cruiser Yamato" entranced audiences by killing off its main characters and destroying the ship itself in the epic second film in the series, "Saraba Uchū Senkan Yamato: Ai no Senshi Tachi" (Farewell to Space Battleship Yamato). But the producers' churning out of "parallel universe" sequels with the very same characters that had previously died off (culminating in 1983's "Final Yamato") provoked a backlash from the fans.

If there had been more, and more talented, creators with the drive to create original content, there wouldn't have been any need to rely on sequels and brand value from the past. This is why the Gundam sequel represents the end of an era. Putting aside the critical response, or the merits of continuing the series, there is no question that this Gundam sequel represents a boundary between eras.

In addition to Zeta Gundam, a total of five robot shows debuted in 1985: "Tatakae! Chō Robotto Seimeitai Transformers" (The Transformers), "Chōjukishin Dangougar" (Super Beast Machine Dancougar), "Aoki Ryusei SPT Layzner" (Blue Comet SPT Layzner), and "Ninja Senshi Tobikage" (Ninja Robot Tobikage) – just half the number of the year before.

"The Transformers" was a reverse-import from abroad. A series of transforming robot toys developed by the Japanese toymaker Takara had been gathered up by an American

company, given a new storyline, and animated into a television series. It is a textbook example of the previously mentioned co-production boom. Although originally developed and sold as transforming vehicles piloted by humans, the American makeover re-envisioned the robots as sentient beings from another planet. This approach of characterizing giant robots as "lifeforms," with individual personalities that spoke in the manner of American comic-book heroes, represents a fundamental difference in robot anime culture between the two countries.

The broadcast runs of both *Dancougar* and *Layzner* were cut short by sponsors due to poor sales of toy and model merchandise. The "cut off" episodes were finished, but rather than being shown in theaters as Ideon's had been, were released as direct-to-video OVAs. While this allowed fans to continue watching the shows they enjoyed, it was as a solitary experience rather than a shared one in a movie theater. This is yet another development that symbolizes the change wrought by video media on the anime fan scene.

A pall fell over the anime world in the second half of 1986. At its peak, seven magazines existed to feed fans' hunger for information about the multitude of new productions proliferating during the Gundam and real robot booms. Now three simultaneously announced that they would be shutting down operations.

There are many reasons for this decision, but one looms above the rest. The majority of the first generation of TV anime fans (a.k.a. the first generation of otaku) had grown up and began spending their disposable income on things other than anime.

And so the curtain fell on this particular era of animated entertainment.

1986 marked the beginning of what could be called the twilight of robot anime. *Zeta Gundam* led to a second sequel, "*Kido Senshi ZZ Gundam*" (*Mobile Suit Double Zeta Gundam*), redundant in name and in content. It and two other productions, "*Tatakae! Chō Robotto Seimeitai Transformers 2010*" (*The Transformers 2010*) and "*Machine Robo: Chronos no Daigyakushu*" (*Machine Robo: The Revenge of Chronos*) represented the only new robot anime to come out in 1986. *Transformers* was a sequel; *Machine Robo* was a hurriedly produced original anime based on a line of transforming toys developed by Bandai using designs and concepts recycled from other series, including the *Super Sentai* shows and *Gordian*. Similar to the *Transformers*, the rights had been acquired for sale abroad, given a new storyline and animated by Hanna Barbera productions for foreign audiences, but the style wasn't a good fit for Japanese tastes and the show was never reverse imported.

1987 marked the broadcast of sequels to *The Transformers* and *Machine Robo*. The sole new and original production aired this year was Sunrise's "*Kikō Senki Dragonar*"

("Metal Armor Dragonar"), directed by Takeyuki Kanda, a series cast in the real robot mold of "Gundam." It aired in the timeslot that the Nagoya Broadcasting Network had dedicated to robot shows, originally used for "Zanbot 3," but the following year, they replaced it with "Yoroiden Samurai Troopers," a non-robot series inspired by the success of the kids-in-armor anime "Saint Seiya." This effectively marked the end of the line for traditional robot anime shows.

At the same time, Sunrise marked a return to kids' robot anime with "Machine Hero Wataru," a series with a role-playing game flair, featuring robots with comically squashed proportions and oversized heads – a style known as "SD" (Super Deformed) in Japan. The only other robot production was Toei Doga's "Transformers Chōjin Masterforce," which was being produced exclusively for the domestic marketplace.

Japanese robot anime had come to feature talking, thinking, sentient robots exclusively. Piloted robots in auteur-driven series with dramatic stories aimed at a middle-teen and older audience had completely vanished from the television airwaves.

But every ending also signals a new beginning. Robot anime may have disappeared from broadcast television, but it lived on in OVAs and theatrical releases. This trend also directly links to the rise of late-night anime broadcasts, which represent one of the most successful venues for anime as of this writing in 2013.

One of the factors in the decline of robot anime in the mid-1980s was the emergence of "megahit" anime based on manga series from Shueisha's "Weekly Shonen Jump" magazine, such as "Dragonball." While OVAs represented the concept of content as merchandise, and gave creators a chance to compete based purely on their own artistic merits, things were never quite as simple as the ideal promised. In fact there was a fundamental paradox between the aim and the production method of OVAs.

Televised anime required involving an outside agency as a middleman to gather the necessary support from television stations and sponsors so as to achieve distribution to the widest possible number of people. These agencies and sponsors were often portrayed as the "bad guys" in the relationship, but compromising to meet their demands didn't necessarily equal surrender to the enemy. The arrangement made it possible for productions to reach the masses, and the skirmishes between the parties represented a necessary step in ensuring the broader appeal of a production to the public at large.

The sponsors of televised robot anime had taken a patron-like approach in giving total creative freedom so long as a few key elements were incorporated; by all rights they should have been seen as allies, in the same boat as the anime creators themselves. But

the OVA model allowed creators to completely sidestep the conflict inherent in dealing with external parties. This in turn allowed them to make things that appealed purely to themselves, which naturally narrowed the appeal of their productions. Creators began consciously choosing fanbases that were on the same wavelength as themselves. As they chose to focus on their own interests to the point of distraction, even core fans began getting left behind, and sales dwindled.

Aware of this paradox, director Mamoru Oshii essentially "rebooted" OVAs with "Kidō Keisatsu Patlabor" (Mobile Police Patlabor), which was released in 1988, at the lowest ebb of the robot anime phenomenon.

In spite of the absence of a toy sponsor, it featured a giant robot called an "Ingram." Rather than being produced for the usual blockbuster OVA budget of 48 million yen, it was serialized in six 30-minute episodes (roughly half a TV season) to keep production costs down. And in another innovation, the first edition of each tape also included commercials, making it as close to a TV anime as an OVA could possibly get.

The OVA series achieved enormous success, including a comic serialization by Masami Yuki in Shogakukan's "Weekly Shonen Sunday" magazine. In 1989, the Bandai Group made the bold decision to skip producing a TV series in favor of green-lighting a theatrical movie, also to be helmed by Oshii. In a trailblazing reversal of the status quo, where successful TV series were expected to lead to movies, the success of the 1989 Patlabor film led to a 1990 TV series. In other words, OVAs had allowed robots to regroup and storm back on to the airwaves.

The TV series directed by Naoyuki Yoshinaga, was a success even without Oshii's distinctive creative mind behind it. In other words so long as the content was popular, the "container" of its media could be whatever the situation required. Patlabor proved the concept that true power resided with the production side of the equation.

1988 also saw the release of another distinctive OVA, Gainax's "Aim for the Top!," directed by Hideaki Anno. It took the idea of "content for the fans" to the extreme. It began in a high school for budding robot pilots, focusing on the seemingly hapless protagonist's struggle to improve her skills and eventually emerge as the top gun of them all. In a unique fusion of super and real-robot genres, it featured both legions of mid-sized robot weapons and a singular giant combining robot formed from two "Buster Machines."

Featuring character designs by Haruhiko Mikimoto of "Macross" fame, "Aim for the Top" leveraged the fan-favorite "robots and girls" theme to the maximum. It represented the directorial debut of Hideaki Anno, who went full throttle to satisfy fans with intense battle scenes. He topped it all off with a twist that managed to transform a classic hard

science fiction conceit into a tear-jerker. Although the approach was quite different from that of "Patlabor," it represents another robot anime title created to compete purely on its own merits.

These productions came to represent what a successful OVA was expected to be, essentially creating a new "package" based business that adapted well to changes in media formats, such as the transition from Laserdisc to DVD. Most recently, the format has been reincarnated for the medium of late-night TV, where it remains popular today.

That robot anime has continued to grow over the years is fundamentally thanks to its "culture" of valuing originality. Its storylines and visuals improved dramatically over a very short timeframe, allowing the genre to evolve into something enjoyed by adults as well as its original audience of children. Its "creative DNA" fosters originality through incorporating interesting aspects of the world around it.

The sense of exploration and vitality inherent to the medium of robot anime is a reflection of the Japanese psyche. Preserving and expanding this vitality is precisely why further research into the field is so urgently needed.

2.5. The 1990s and Beyond: Return and Refinement

By the 1990s, the first generation of robot anime fans had grown to the age of parents themselves, and a new wave of robot anime emerged for their children, who represented the second generation of robot anime fans.

The most famous of this new wave of 1990s robot shows is Sunrise's "Yūsha Series" (Brave Series), which, in the style of "The Transformers," featured talking giant robots with personalities. The first entry in the franchise was 1990's "Yūsha Exkaizer" (Brave Exkaizer), and the last was the seventh, 1997's "Yūsha Gaogaigar" (Brave Gaogaigar.) The end of the Brave series drew the curtain on the Nagoya Broadcasting Company's robot anime timeslot, a development newsworthy enough to warrant an article on the front page of the Asahi Shinbun's Nagoya edition.

Aiming to return to childrens' animation, Sunrise launched the three-part "Eldran Series" with toymaker Tomy's sponsorship, starting with 1991's "Zettai Muteki Raijin-Ō" (Matchless Raijin-Oh), directed by Toshifumi Kawase. Raijin-Oh was based firmly in the "what-if?" school of robot anime, based around the question of "what if a normal-looking school was actually a secret base?" It represented a return to the wish fulfillment of Tryder G7, which had featured an elementary schooler robot pilot / company president. Raijin-Oh's launch sequences featured Thunderbirds-esque performances. The eponymous robot squared off against ferocious monsters, defeating

them with a cathartic "finishing move" at the end of every episode.

The protagonists, an entire class of 18 fifth-graders, were portrayed with deft characterization, giving the show a charming ensemble cast. The know-how refined from real robot shows, "Vifam" in particular, had paid off. As a result the show became a smash hit not only among its intended target audience of grade schoolers, but also among adults as well, establishing another example of the dual-demographic phenomenon.

Productions aimed at a higher target demographic of high schoolers and older would make a return in the middle of the decade. In 1995, Gainax released director Hideaki Anno's "Neon Genesis Evangelion," which took a quasi-mystical approach to deciphering the mysteries of the human heart. Its fresh story and visuals took Japan by storm, exploding into a full-blown fad. And the biotechnological aspects of the EVA units reflected concerns over the issue in society of the day.

Director Mamoru Oshii's "Ghost in the Shell," released in the same year, racked up impressive sales in North America. Director Katsuhiro Otomo's "Akira" had wowed arthouse audiences with the technical virtuosity of its visuals, but Ghost in the Shell instantly elevated anime to a mainstream worldwide stage. Although not a robot anime in the strictest sense of the word, Ghost in the Shell's cyborg protagonist is a human-machine hybrid who struggles with her identity, a theme that can be traced directly back in an unbroken line to "Tetsuwan Atom" (Astro Boy).

The end of the 1990s saw a research and development trend in which Japanese companies announced one after another real-world bipedal robot projects. The engineers professed to have been inspired by Japanese robot anime, and chose robots as their platform for showcasing Japanese technology to the world. This represented yet another phase in the maturation of the robot anime genre.

1993 marked the thirtieth anniversary of Tetsuwan Atom. As an aside, a generation is typically defined as a 20 year period, but given the increasingly late age at which Japanese are getting married in the modern day, a thirty year generational cycle may be more appropriate for Japan.

The 1990s also ushered in what could be called the "quality revolution." As the release of TV series on video became the norm, the idea of anime fans as "users" rather than simple consumers took root, and the quality of a production's visuals became the standard by which it was judged. Originally, quality had only been a production side concern, while the consumers only really paid attention to the story and characters, but no longer. Their revolution in thinking was driven by the comparatively high resolution

of the Laserdisc format.

Robot anime played a key role in this increasing demand for higher quality. An example of this can be seen in 1991's "Mobile Suit Gundam 0083: Stardust Memory," which filled in a story gap between the first Gundam series and its sequel Zeta Gundam. Its mobile suit battle scenes incorporated the special techniques and high detail previously reserved only for the glossy promotional illustrations that appeared on posters, in magazines, and on video packaging, giving the animation an enhanced visual quality that was on par or even higher than that of a theatrical release. The production staff simply intended to create an OVA that could be watched over and over again as a service to the fans, but once they had shown it could be done, it set a new industry standard.

It also inaugurated a new era of high-quality televised anime. For example, a focus on quality had played no small part in Evangelion's success. OVAs had long been perceived as higher quality than televised anime, but lower quality than theatrical anime. This sparked the realization that if TV anime had the visuals of an OVA, it might just increase its value as a product. A new bar for competition had been set.

Televised anime, with its 26-episode seasons, promised almost four times the potential sales as compared to an OVA, whose six-episode format had been established by the success of Patlabor. That meant the potential profits from a TV hit were huge. It's precisely this thinking that led to the adoption and standardization of the "production committee" business model, in which a consortium of investors aimed to recoup their money through video sales. Today, the production committee represents standard operating procedure for both anime and live-action filmmaking in Japan.

This represents the ultimate form of the "animation as primary product" concept. It is worthy of note that a robot anime, Evangelion, established that catering to fan desires with top-quality storytelling, visuals, characters, and mechanical design represented a "total package" from which it was possible to profit handsomely.

2.6. The 2000s: Fiction Meets Reality

The digitalization of domestic Japanese animation has had a great impact on robot anime as well, and represents a worthy subject for future research in and of itself.

The early 21st century saw a slew of sequels and remakes of classic Japanese robot content, including Tetsuwan Atom, Tetsujin 28-gō, Mazinger Z, Gundam, Evangelion, and more. And the "Super Robot Wars" video game series, which debuted in the 1990s, continues to enjoy a great deal of success, playing an important role in maintaining the value of Japanese robot culture and in linking fans old and new. Giving robots from

classic series a single stage on which to meet and battle alongside one other not only promotes a spirit of comradery but also provides new ways to talk about these series that go beyond generational lines.

The development of cell phones and their latest incarnation, smartphones, the ever-increasing capabilities of notebook computers, the portability of gaming devices, and the growing "intelligence" of consumer electronics means that we are all effectively surrounded by minature robots.

This metamorphosis in the world around us has been exploited by the robot anime genre, notably in 2011's "Danbōru Senki" series (released abroad as "Little Battlers eXperience"), which stars tabletop-sized robots that are remotely controlled by cell phones. Another example of how robot anime continues to evolve and adapt to modern situations can be seen in 2012's "Chōsoku Henkei Gyrozetter," a series developed in tandem with an automaker that showcases a variety of real-world car models.

Robot anime was born out of a sense of excitement at the potential of the (then) far-flung 21st century, and today it has spilled from the frame of television and movie screens to increasingly fuse with real life.

The second and third generations of parents and children continue to enjoy robots both in anime and in real life. The potential of the genre will only continue to grow in the century ahead. As fiction increasingly mixes with reality, a new generation of dreamers will undoubtedly spark new advances in robot anime culture along the way.

*Chapter 3 is not translated.

Chapter 4: Robot Anime List

The robot anime titles discussed in Chapters 2 and 3 above have been arranged chronologically below.

NOTE: This list was complied by the project team. Once this report has been released publicly, we plan to refine it based on comments from industry professionals and fans.

English titles in parentheses indicate shows or films for which there is no official English title, and are transliterations of the Japanese titles.

4.1. Chronology of Robot Anime Productions

	No.	Title (Japanese)	Medium	Broadcast, Release, or Sale	Episodes	Notes (Selected Highlights)
		Title (Transliterated)				
		English Title				
1960s – 1970s	1	鉄人 28 号	TV	1963 –1966	97	A black and white anime series based on the hit manga of the same name. Although radio and live-action versions existed before, this was the first animated version. It is the forerunner of all giant robot anime. An English-language edition, re-titled “Gigantor,” aired in the USA in the 1960s.
		Tetsujin Nijū hachi gō				
		Tetsujin 28-gō				
	2	アストロガンガー	TV	1972 –1973	26	A hero of mixed alien and human blood “fuses” with a sentient robot, making the premise different from later shows in which the robot was “controlled.”
		Asutorogangā				
		Astroganger				
	3	マジンガーZ	TV	1972 – 1974	92	Groundbreaking in its portrayal of a robot controlled by a pilot inside, rather than by external verbal commands or remote control. Towards the middle of the series, it established the now-familiar pattern of introducing new weapons for the hero to battle increasingly more powerful enemies. An edited version was aired in the United States in the 1980s as “Tranzor Z.”
		Majingā Zetto				
		Mazinger Z				
	4	マジンガーZ 対暗黒大將軍	Movie	1974		A feature film produced to bridge the end of the broadcast of the Mazinger Z series and the start of its sequel, Great Mazinger. Released to great fanfare, playing up the fact that it featured multiple super robots fighting alongside each other.
		Majingā Zetto Tai Ankoku Daishougun				
		(Mazinger Z vs. the Dark General)				
	5	ゲッターロボ	TV	1974 – 1975	51	A robot show featuring three high-tech aircraft that could combine into one of three different robot forms. The teamwork of the three pilots working together to control each of the robot’s unique forms represented a new development in the robot anime genre. An English version of the sequel Getter Robo G aired as part of the “Force Five” series in the United States under the name “Starvengers.”
		Gettā Robo				
		Getter Robo				
	6	グレートマジンガー	TV	1974 – 1975	56	A continuation of the Mazinger series. Featuring even more powerful enemies, the show continued the trend of continually enhancing the powers of the hero’s robot. Episodes of it were combined with the original series and aired in the United States as “Tranzor Z.”
		Gurēto Majingā				
		Great Mazinger				
	7	UFO ロボ グレンダイザー	TV	1975 – 1977	74	Upending the paradigm of giant robots created by human scientists, this show introduced a super robot created by aliens, used to defend Earth from extraterrestrial invaders. A foreign-language version, called “Goldorake,” aired in France and other countries to great success. It was also aired in the United States in the 1980s as part of the “Force Five” series of shows.
		Yū Fō Robo Grendaizā				
		UFO Robo Grendizer				
	8	勇者ライディーン	TV	1975 – 1976	50	The first transforming robot. The hero’s special moves, his handsome and charming enemy rival, and the toys that replicated the robot’s transformation all combined to make this series a great success. Also known for its narrative storyline, which gave the series a grandly operatic feel. It appeared in America as one of the robots in the “Shogun Warriors” comic book and toy series.
		Yūsha Raidīn				
		Brave Raideen				
	9	鋼鉄ジーグ	TV	1975 – 1976	46	A robot character created in concert by a toy company, a publisher, a manga studio, and an anime studio. The toys featured unique magnetic ball-joints, replicating the title character just as he appeared onscreen. Although the show didn’t air in the United States, the toy was incorporated into the “Micronauts” toy and comic book series as the characters “Baron Karza” and “Force Commander.”
		Kōtetsu Jīgu				
		Steel Jeeg				
	10	ブロッカー軍団 IV マシーンブラスター	TV	1975 – 1977	38	Introduced the concept of multiple hero robots in the same show. It emphasized teamwork and cooperation in its action scenes.
		Burokkā Gundan Fō Mashīn Brasutā				
		(Blocker Army IV Machine Blaster)				

1960s – 1970s	11	グレンダイザー ゲッターロボ G グレートマジンガー 決戦! 大海獣	Movie	1976		The third in a series of films featuring characters from multiple series. The pilots of three giant robots join forces, contributing their unique abilities to defeat a massive enemy. The concept is a clear inspiration for the later “Super Robot Wars” series of video games.
		Gurendaizā / Gettā Robo Jī / Grēto Majingā Kessen! Daikaijū				
		(Grendizer, Getter Robo G, and Great Mazinger Fight the Great Sea Monster!)				
	12	UFO 戦士ダイアポロン	TV	1976	26	Introduced the concept of three humanoid robots that can combine into one of three distinct forms. The human pilots physically grew in size and fused with their robots, emphasizing the union of man and machine. The designs were inspired by the gear of American football players.
		Yū Fō Senshi Daiaporon				
		(UFO Warrior Diapolon)				
	13	超電磁ロボ コン・バトラーV	TV	1976 – 1977	54	A robot formed from five separate machines, including a jet and a tank. The toys incorporated the same gimmick to great effect. Great use of the motifs of teamwork and strategy makes this a perfect example of the combining robot show. It appeared in America as one of the robots in the “Shogun Warriors” comic book and toy series.
		Chōdenji Robo Konbatorā Bui				
		(Super Electromagnetic Robo Combattler V)				
	14	大空魔竜ガイキング	TV	1976 – 1977	44	A show set inside a giant flying fortress in the shape of a dragon, whose head could detach to form the giant robot Gaiking. Introduced the concept of a carrier for a giant robot. A pioneer in portraying the drama unfolding inside the fortress as well as on the battlefield. It aired in America as part of the “Force Five” series, while the toys were released as part of the “Shogun Warriors” toy series.
		Daikūmaryū Gaikingu				
		(Great Flying Dragon Gaiking)				
	15	マグネロボ ガ・キーン	TV	1976 – 1977	39	A Toei original production, featuring a male and female pilot who combined to form a robot with a distinctively curved, ball-jointed silhouette. Remembered for the amount of hardware, weapons, and “power-ups” used in the battle scenes.
		Magune-Robo GaKīn				
		(Magnetic Robo GaKeen)				
	16	惑星ロボ ダンガード A	TV	1977 – 1978	56	Essentially a sports drama in the vein of the classic baseball series “Kyojin no Hoshi” (Star of the Giants) recast in a sci-fi setting. Unique in its focus on the human element, it featured extensive training sequences for its hero; his robot didn't even make its first appearance until episode 12. It appeared in America as one of the robots in the “Shogun Warriors” comic book and toy series.
		Wakusei Robo Dangādo Ēsu				
		(Planetary Robo Danguard Ace)				
	17	超電磁マシン ボルテスV	TV	1977 – 1978	40	“Grounded in the framework of the combining robot genre, it featured a hero and enemy who were brothers, and an operatic storyline centering on a long-oppressed populace rallying to revolution. In 1984, the toy was sold in the USA under the “Godaikin” brand name.
		Chōdenji Mashīn Borutesu Faibu				
		(Super Electromagnetic Machine Voltes V)				
	18	タイムボカンシリーズ ヤッターマン	TV	1977 – 1979	108	“Bokan” translates into “mothership,” and is also onomatopoeia for an explosion. A comedy featuring a giant robot dog called Yatter Wan, filled with various support robots dispensed as needed to defeat the enemy's latest wacky plot.
		Taimu Bokan shirīzu Yattāman				
		(Time Bokan Series: Yatterman)				
	19	無敵超人ザンボット3	TV	1977	23	A combining robot series that portrayed the impact of war on civilian life, featuring a band of refugee heroes driven from their home. In a genre first, the hero's robot was armed with a gun. It is considered an influence on later “real robot” series, particularly Gundam.
		Muteki Chōjin Zanbotto Surī				
		Super Machine Zanbot 3				
	20	機動戦士ガンダム	TV	1979 – 1980	43	This groundbreaking series portrayed giant robots as mass-produced weapons rather than heroes. Elements such as calling them “mobile suits” instead of robots, a dramatic conflict between human factions, and a strong ensemble cast established a new “real robot” genre and set the tone for many subsequent productions to follow.
		Kidō Senshi Gandamu				
		Mobile Suit Gundam				
	21	闘士ゴードIAN	TV	1979 – 1981	73	Featured a unique “nesting doll” design in which the hero's human-sized robot suit combined with progressively larger ones to form a giant robot. Its storyline was a fusion of sci-fi and cowboy Western. The toy was sold in the USA under the “Godaikin” brand name.
		Tōshi Gōdian				
		(Gordian the Fighter)				
1980s	22	無敵ロボ トライダーG7	TV	1980 – 1981	50	A sitcom-style show about an elementary schooler running a robot company. It was set in an old-timey Tokyo neighborhood for a homey, local feel; the giant robot's hangar was even housed under a city park playground. Notable for the seven different transformations of the giant robot.
		Muteki Robo Traidā Jī Seibun				
		Invincible Robo Tryder G-7				
	23	伝説巨神イデオン	TV	1980 – 1981	39	The literal translation of the title is “Legendary Giant Ideon.” A dramatic series featuring a massive, hundred-meter high robot capable of slicing planets in two with its sword. Remembered for the absolutely epic scale of its storyline, as the human race faced annihilation in an interplanetary war.
		Densetsu Kyojin Ideon				
		Space Runaway Ideon				

1980s	24	鉄人28号(太陽の使者)	TV	1980 – 1981	51	“Tetsujin 28: Follower of the Sun.” A 1980s remake of the classic '50s series, updated for modern audiences with all new action and designs. The remake maintained the steely appearance and physical combat of the original, and included old rivals such as “Black Ox.” The toy was sold in the USA under the “Godaikin” brand name
		Tetsujin Nijū hachi gō (Taiyō no Shisha)				
		(Tetsujin 28: Follower of the Sun)				
	25	百獣王ゴライオン	TV	1981 – 1982	52	A fantasy-heavy storyline involving five robotic lions that combined into a humanoid robot. Re-packaged with the unrelated TV shows “Dairugger XV” and “Arbegas” and re-titled “Voltron,” it aired to great success in America in the mid-1980s. It remains popular abroad today.
		Hyaku Jūō Goraion				
		(King of the Beasts: Golion)				
	26	最強ロボ ダイオージャ	TV	1981– 1982	50	At this point, robot anime had become a household staple, and creators started turning to pop culture for new inspiration. In this case it was the long-running period TV drama “Mito Kōmon,” re-cast from the era of Shoguns into a sci-fi setting. The premise centers on three smaller robots that combine into a giant robot.
		Saikyō Robo Daiōja				
		(Robot King Daiōja)				
	27	六神合体ゴッドマーズ	TV	1981– 1982	64	Based on a comic by Mitsuteru Yokoyama, the creator of Tetsujin 28-gō, heavily “remixed” for TV with the author’s consent. A morality play that exploited dramatic twists to the extreme. After the show ended, fans (particularly female ones) successfully petitioned to get a theatrical version made.
		Rokushin Gattai Goddo Māzu				
		(Six Gods Combined: God Marz)				
	28	銀河旋風ブライガー	TV	1981– 1982	39	A dramatic space opera loosely patterned on a popular period TV drama series called “Hissatsu Shigotonin.” The show’s robot transforms from car to spaceship to robot form, growing in size along the way.
		Ginga Senpū Buraigā				
		Galactic Gale Baxinger				
	29	太陽の牙ダグラム	TV	1981– 1983	75	Took the “robot as faceless weapon” concept to a literal extreme, featuring robot designs with glass-canopied cockpits instead of heads. The story centered on hard political drama extending over the course of a long year and a half broadcast run. Although never broadcast in the USA, toys from the series were a common sight on US store shelves in the late 1980s.
		Taiyō no Kiba Daguramu				
		Fang of the Sun Dougram				
	30	超時空要塞マクロス	TV	1982– 1983	36	A groundbreaking fusion of sci-fi and idol music. Its three pillars of aircraft that transform into robots, pop music as part of the drama, and a love triangle involving the main characters continue to be used in the series to this very day. In the mid-1980s, it was translated and heavy reworked into the hit American series “Robotech.”
		Chōjikū Yōsai Makurosu				
		Super Dimensional Fortress Macross				
	31	戦闘メカ ザブングル	TV	1982 – 1983	50	A futuristic Western-inspired setting with robots reminiscent of construction equipment. The slapstick antics of the protagonist gave it a cartoony charm. Pioneered the trend of swapping out the hero’s robot for a totally different one midway through the series.
		Sentō Meka Zabunguru				
		Walker Machine Xabungle				
	32	機甲創世記モスピーダ	TV	1983 – 1984	25	“Genesis Climber Mospeda.” A journey across a post-apocalyptic Earth landscape using motorcycles that can transform into powered armor for their riders. The transforming toys from the show were a hit with fans. Combined with “Macross” and “Southern Cross” as part of the Robotech omnibus of shows in America.
		Kikō Sōseiki Mosupīda				
		Genesis Climber Mospeda				
	33	銀河漂流バイファム	TV	1983 – 1984	46	A drama in the vein of “Gundam,” taking inspiration from Jules Verne’s novel Two Years’ Vacation. Was popular enough to generate several spin-off stories and direct-to-video productions after the TV series ended.
		Ginga Hyōryū Baifamu				
		Round Vernian Vifam				
	34	装甲騎兵ボトムズ	TV	1983 – 1984	52	A rare case of a robot anime not named for its main robot character, this is an allegorical tale in which the machines are standardized weapons for foot soldiers rather than heroes. . The gritty portrayal of its robots incorporated features such as segmented armor for mobility, tires on their feet for rapid motion, hydraulic arm punches, and other realistically engineered features.
		Sōkō Kihei Botomuzu				
		Armored Trooper Votoms				
	35	聖戦士ダンバイン	TV	1983 – 1984	49	Pioneered the fusion of swords-and-sorcery fantasy with the robot genre. In a world reminiscent of medieval Europe, wars are waged using biomechanical “Aura Machines” built using giant living creatures. The concept of pilots’ psychic “aura power” powering the giant machines was a new twist as well.
		Seisenshi Danbain				
		Aura Battler Dunbine				
	36	超時空騎団サザンクロス	TV	1984	23	Sci-fi military action centered on a female protagonist. The heroes wear armored suits that double as the pilot suits for their giant robots. Incorporated into the Robotech omnibus of shows abroad.
		Chōjikū Kidan Sazan Kurosu				
		Super Dimensional Cavalry Southern Cross				

1980s	37	超時空要塞マクロス 愛・おぼえていますか	Movie	1984		"Macross: Do You Remember Love?" A retelling of the TV series, featuring all-new animation and a revised storyline. The unprecedented attention to detail set the bar for animation quality for many years after its release. A heavily edited English-language version called "Clash of the Bionoids" was released direct to video abroad.
		Chōjikū Yōsai Makurosu Ai Oboete Imasuka				
		Macross: Do You Remember Love?				
	38	巨神ゴーグ	TV	1984	26	An original story by Gundam's Yoshikazu Yasuhiko, who singlehandedly wrote, storyboarded, directed, and designed the characters and robots. One of robot anime's classic "auteur" productions.
		Jaianto Gōgu				
		Giant Gorg				
	39	機甲界ガリアン	TV	1984 – 1985	25	Another fusion of swords-and-sorcery fantasy and sci-fi elements set in a medieval world of clashing states. Although many of the enemy robots utilized ornately knight-like or dragon style motifs, the protagonist's robot Gallient was of an orthodox design.
		Kikōkai Garian				
		Panzer World Gallient				
	40	重戦機エルガイム	TV	1984 – 1985	54	"Heavy Metal L-Gaim." Introduced a new style of giant robot design, pioneered by Mamoru Nagano. His idea of hanging external armor on a skeleton-like internal frame set a new standard for robot designs that is still used to this day. The show went on to inspire Nagano's later "Five Star Stories."
		Jūsenki Eru Gaimu				
		Heavy Metal L-Gaim				
	41	マイティオーボッツ	TV	1984 (USA)	13	A Bandai production helmed by director Osamu Dezaki and animated by TMS Entertainment (formerly Tokyo Movie Shinsha), designed for American Saturday morning television. Featured a giant hero robot formed from five smaller "cyborgs."
		Maitī Ōbottsu				
		Mighty Orbots				
	42	メガゾーン 23	OVA	1985		A coming-of-age drama that envisioned Tokyo as a virtual reality construct inside a giant spaceship. Widely circulated abroad on bootleg tapes in the 1980s, it went a long way towards establishing the cool factor of "Japanimation" abroad. Although never officially acknowledged as such, it's an obvious inspiration for the "Matrix" films. It made excellent use of motorbikes that transformed into giant robots.
		Megazōn Tsū Surī				
		Megazone 23				
	43	機動戦士 Z ガンダム	TV	1985 – 1986	56	The first sequel in the Gundam series. Notable in that multiple mechanical designers contributed to the show, giving its robot designs a great deal of variety. In response to the growing popularity of the Transformers, it introduced the series' first transforming Mobile Suit designs.
		Kidō Senshi Zēta Gandamu				
		Mobile Suit Gundam Zeta				
	44	超獣機神ダンクーガ	TV	1985	38	Starring a disaffected soldier, it featured one of the most complex robots ever designed: a series of aircraft and tanks that could both independently transform into a variety of animal forms, robots, and then combine into a larger robot. An OVA and theatrical version followed the end of the series. Although never broadcast in the USA, the toys were released as part of the Godaikin series.
		Chōjū Kishin Dankūga				
		(Super Beast-Machine Dancougar)				
	45	戦え!超ロボット生命体トランスフォーマー	TV	1985 – 1986	63	An American show based on robot toys created by a Japanese company. The animation was created in Japan based on American scripts. A worldwide smash hit, the series continues in various forms to this day.
		Tatakae! Chō Robotto Seimeitai				
		Toransufōmā				
	46	蒼き流星 SPT レイズナー	TV	1985 – 1986	38	The SPT stands for "Super Powered Tracer." A "buddy show" that introduced the concept of a pilot working together with the sentient AI of his giant robot. The high-speed "special moves" and aerial combat scenes breathed fresh air into the genre.
		Aoki Ryūsei Esu Pī Tī Reizunā				
		Blue Comet SPT Lazner				
	47	マシンロボ クロノスの大逆襲	TV	1986 – 1987	47	Based on a series of transforming toys made by now defunct toy company Popy. Introduced a new storyline that portrayed the robots as sentient heroes. The quality of the Japanese production may surprise Americans, who knew the toys as "Gobots," which were marketed to young children.
		Mashin Robo: Kuronosu no Daigyakushū				
		Machine Robo: Revenge of Chronos				
	48	ロボットカーニバル	OVA	1987		An omnibus-style production that featured short films by eight noted animators who used robots as a canvas for their unique creative visions. The opening and closing segments were directed by "Akira" creator Katsuhiro Otomo.
		Robotto Kānibaru				
		Robot Carnival				
	49	魔神英雄伝ワタル	TV	1988 – 1989	45	Featured uniquely squashed, large-headed designs in what was called a "super deformed" style. Created during the boom of popularity surrounding the "Famicom" (Nintendo Entertainment System), its world resembled that of a video game RPG. The video game made it to American shores as "Keith Courage in Alpha Zones" for the TurboGrafx-16 console.
		Mashin Eiyūden Wataru				
		Machine Hero Wataru				
	50	機動警察パトレイバー	OVA	1988 – 1989	7	Released when direct-to-video OVA sales were seriously slumping, this series breathed new life into the robot anime genre. Introduced the "half-season" format of six-episode OVAs, which became industry standard afterwards.
		Kidō Keisatsu Patoreibā				
		Mobile Police Patlabor				

1980s	51	冥王計画ゼオライマー	OVA	1988 – 1990	4	A deep, dark OVA centered on the protagonist's search for identity. Featured a variety of robot designs and borrowed heavily from the tokusatsu genre to dramatize their size and performances.
		Purojekuto Zeoraimā				
		Hades Project Zeorymer				
	52	トップをねらえ!	OVA	1988	6	Added a sports theme to the tried and true “girls and robots” genre. An homage to classic robot and tokusatsu series, infused with hard sci-fi elements and a serious storyline. It was the directorial debut of Hideaki Anno, who would go on to create “Evangelion.”
		Toppu wo Nerae!				
		Aim for the Top!				
	53	獣神ライガー	TV	1989 – 1990	43	A biomechanical robot with an organic design. Created a sensation through its real-time collaboration with a pro wrestler, who changed his mask and techniques in keeping with the anime storyline.
		Jūshin Raigā				
		Bio Armor Ryger				
	54	ファイブスター物語	Movie	1989		The theatrical version of a comic book created by “L-Gaim” designer Mamoru Nagano. The film focused on a single tiny opening episode of the comic book's grand space opera.
		Faibu Sutā Stōrīzu				
		The Five Star Stories				
	55	機動警察パトレイバー the Movie	Movie	1989		A unique case of an OVA series inspiring a theatrical film. Its realistic portrayal of computer crimes and urban problems against the backdrop of Japan's economic bubble expanded the frontiers of the robot anime genre.
		Kidō Keisatsu Patoreibā za Mūbī				
		Mobile Police Patlabor the Movie				
1990s	56	勇者エクスカイザー	TV	1990 – 1991	48	The textbook example of the 1990's trend to make robot anime for kids again. Unique in its portrayal of the various transforming robots and human characters as friends and partners. Launched what came to be known as the “Brave Series.”
		Yūsha Ekusukaizā				
		Brave Fighter Exkiser				
	57	NG 騎士ラムネ&40	TV	1990 – 1991	38	A comedic “super deformed” (cute and stylized) robot anime. Centered on the keyword of “passion.” The protagonists have eight robots, each with its own transformation gimmick.
		Enu Jī Naito Ramune ando Fōtī				
		NG Knight Lamune & 40				
	58	絶対無敵ライジンオー	TV	1991 – 1992	51	Featured a school that transforms into a giant robot fortress. The fun premise of a school being a secret base and the adventures of the ensemble elementary school cast made it popular far beyond its original young target audience.
		Zettai Muteki Raijinō				
		Matchless Raijin-Oh				
	59	ゲッターロボ號	TV	1991 – 1992	50	A modern version of Getter Robo, featuring the same “three vehicles into three robots” concept. By this point manufacturing technology had advanced to the point where the design could be realized in toy form. Created as an homage to the glory of Seventies robot shows.
		Gettā Robo Gō				
		Venger Robo				
	60	超電動ロボ 鉄人 28 号 FX	TV	1992 – 1993	47	Created as a modernized sequel to the 1960s show. It featured a grown-up Shotaro Kaneda and his son fighting crime together. Remembered for its “team-up” scenes featuring the modernized Tetsujin 28-gō FX alongside its Sixties predecessor.
		Chōdendō Robo Tetsujin Nijū hachi gō Efu Ekkusu				
		Chōdendō Robo Tetsujin 28-gō FX				
	61	ジャイアントロボ THE ANIMATION 地球が静止する日	OVA	1992– 1998	7	A thoroughly modernized and remixed version of the classic 1960's comic series and tokusatsu show. Incorporated an all-star cast of characters from creator Mitsuteru Yokoyama's oeuvre. A visually, dramatically rich production created by and for giant robot anime connoisseurs.
		Jaianto Robo Ji Animēsyon Chikyū ga Seishi Suru Hi				
		Giant Robo THE ANIMATION The Day the Earth Stood Still				
	62	機動武闘伝 G ガンダム	TV	1994 – 1995	49	Gundam-vs-Gundam battle royale, set in an alternate universe where conflicts are settled with combat games instead of war. Expanded the scope of the Gundam series with over the top characters and their uniquely individualized Mobile Suits, such as a Gundam that transformed into a temple bell.
		Kidōbutōden Jī Gandamu				
		Mobile Fighter G Gundam				
	63	ヤマトタケル	TV	1994	37	Simultaneous live-action and anime productions. The anime featured robot and character designs with a uniquely Japanese flavor. The robot transformed by “shedding its skin.”
		Yamato Takeru				
	64	新世紀エヴァンゲリオン	TV	1995 – 1996	26	Directed by Hideaki Anno. Anime would never be the same after this groundbreaking production. Its totally unique robot designs, wildly popular characters, and byzantine plotline pushed the boundaries of what a giant robot anime could be about. It sparked a nationwide social phenomenon when released, and remains deeply influential to this day.
		Shinseiki Evangerion				
		Neon Genesis Evangelion				

1990s	65	レイアース	OVA	1997		Based on the same manga as its televised predecessor, but shifted the spotlight to the story's giant robots.
		Reiāsu				
		Magic Knight Rayearth				
	66	勇者王ガオガイガー	TV	1997 – 1998	49	The finale of the “Brave Series” of shows. Took a harder sci-fi tack than its predecessors, with even more action and detail lavished on the robot designs. Incorporated a variety of digital animation techniques as well.
		Yūshaō Gaogaigā				
		The King of Braves Gaogaigar				
	67	ガサラキ	TV	1998 – 1999	25	Featuring designs and action inspired by actual military technology, its incorporated uniquely Japanese motifs, such as robot designs based on oni (demons.) The rich historical and cross-cultural narratives made it a hit among older audiences.
		Gasaraki				
	68	真ゲッターロボ 世界最後の日	OVA	1998 –1999	13	Produced in response to a perceived need to re-introduce a classic robot anime to a generation of fans who only knew the Super Robot Wars games. Represented an opportunity for a new generation of production talent, who turned to the original manga, rather than the 1970s anime, for inspiration.
		Shin Gettā Robo Sekai Saigo no Hi				
		Getter Robo Armageddon				
	69	ゾイド –ZOIDS–	TV	1999– 2000	67	An anime based on the 1980s toy series of the same name. Utilized CG animation to animate the complex designs of the series' trademark dinosaur-shaped robots exactly as they appeared in toy form.
		Zoido				
		ZOIDS				
	70	THE ビッグオー	TV	1999– 2000	26	A stylish production inspired in equal parts by American film noir and comic books. Utilized techniques inspired by live-action films to accentuate the size and weight of the robots. Cancelled after a half season in Japan, it took off abroad and was finished using American funding.
		Za Biggu Ō				
		The Big O				
2000s	71	サクラ大戦	TV	2000	25	An animated series based on the hit 1996 video game of the same title. A “steampunk” production set in an imaginary re-envisioning of Japan's Taisho era (1920s). It featured armored-suit style robots that were powered by steam.
		Sakura Taisen				
		Sakura Wars				
	72	機巧奇傳ヒヲウ戦記	TV	2000 – 2001	26	An original production set at the end of the Shogun era. The giant clockwork robots, powered by wound-up springs and capable of transforming, pushed Japanese-style robot designs into interesting new territory.
		Karakuri Kiden Hiō Senki				
		Hiwou War Chronicles				
	73	フルメタル・パニック!	TV	2002	24	One of the earliest anime produced from a “light novel.” Although mainly a romantic comedy centered on an elite soldier assigned to guard a high school girl, weaponized robots play a key part in the story.
		Furumetaru Panikku!				
		Fullmetal Panic!				
	74	ラーゼフォン	TV	2002	26	Created by famed mechanical designer Yutaka Izubuchi. Its themes of mystery and beauty attracted artists and creators from a variety of fields. Incorporated the unique concept of a robot hero whose brainwaves could “tune the world.”
		Rāzefon				
		RahXephon				
	75	OVERMAN キングゲイナー	TV	2002 – 2003	26	Created by Gundam's Yoshiyuki Tomino. Utilized a unique approach to its biomechanical robots, which were powered by “muscle engines” and wore armor-like “overcoats.” The battles were high-speed affairs incorporating paranormal mind-reading powers.
		Ōbāman Kingu Geinā				
		Overman King Gainer				
	76	ほしのこえ	Movie	2002		A self-produced film singlehandedly created by Makoto Shinkai, it centered on a long-distance love story between a young female soldier deployed in space and her boyfriend back on Earth. Noted for its beautiful backgrounds and the CG-animated robot combat scenes.
		Hoshi no Koe				
		Voices of a Distant Star				
	77	機動戦士ガンダム SEED	TV	2002 – 2003	50	Created as a “First Gundam for the 21 st century.” The young pair of protagonists, the distinctive poses of the robots, and the high-speed action made it a hit among middle school audiences. Several side-stories and sequels were also produced.
		Kidō Senshi Gundam Shīdo				
		Mobile Suit Gundam SEED				
	78	SD ガンダムフォース	TV	2004	52	Created for foreign audiences, it utilized motion-capture and 3D CG animation technology while maintaining a traditional cel animation appearance. Parodied many aspects of the Gundam universe.
		Esu Dī Gandamu Fōsu				
		Superior Defender Gundam Force				
	79	機動戦士ガンダム MS IGLOO 一年戦争秘録	Movie	2004	3	A side-story rendered in full 3D CG animation. Created in association with a line of plastic model kits. Brought a new sense of realism while remaining faithful to the Gundam universe. Broadcast on the web and also screened at a special event.
		Kidō Senshi Gandamu Emu Esu Igurū				
		Ichinen Sensō Hiroku				
		Mobile Suit Gundam MS IGLOO: The Hidden One Year War				

2000s	80	鉄人 28 号	TV	2004	26	Inspired by the fact that the manga was set at roughly the time when the Tokyo Tower was under construction. This remake of the classic series was influenced by the success of other nostalgic dramas set in the postwar era, particularly the hit live-action film “Always: Sunset on Third Street (Always: 3-Chome no Yuhi).” Its portrayal of a bygone era had a pleasantly retro feel
		Tetsujin Nijū hachi gō				
		Tetsujin 28-gō				
	81	機動戦士 Z ガンダム A New Translation	Movie	2005 – 2006	3	A series of three films created to commemorate the 20 th anniversary of the TV series. The subtitle refers not to language but storytelling, as director Yoshiyuki Tomino re-fashioned the original story and characters to appeal to a modern audience.
		Kidō Senshi Zēta Gandamu A Nyū Toransurēsyon				
		Mobile Suit Z Gundam: A New Translation				
	82	創聖のアクエリオン	TV	2005	26	It utilized 3D CG animation to portray the heroes’ three fighters that could combine into three different forms. Played up the combination / teamwork elements for some surprising twists involving the three pilots.
		Sōsei no Akuersion				
		Genesis of Aquarion				
	83	スーパーロボット大戦 ORIGINAL GENERATION THE ANIMATION	OVA	2005	3	An animated series based around several original robots and characters that appeared in the “Super Robot Wars” series of video games. Later spun off into two television series.
		Sūpā Robotto Taisen Orijinaru Jenerēsyon Ji Animeisyon				
		Super Robot Taisen Original Generation The Animation				
	84	IGPX Immortal Grand Prix	TV	2005 – 2006	26	A racing robot anime with a motorsports theme. The high-speed action was rendered in full 3D CG animation. Introduced the concept of humanoid robots racing and joining forces in battle.
		Ai Ji Pi Ettukusu Inmōtaru Guranpuri				
		IGPX Immortal Grand Prix				
	85	ゼーガペイン	TV	2006	26	Made the most of 3D CG animation techniques to render things that would have been almost impossible with traditional cel animation: transparent robots and weaponry. The story featured a unique looping structure.
		Zēgapein				
		Zegapain				
	86	機神大戦 ギガンティック・フォーミュラ	TV	2007	26	14 mechanical designers contributed to this series, giving each robot a totally distinctive feel. It shone a spotlight on the artists who long toiled behind the scenes of anime shows; one could even call it a sort of “Super Robot Designer Wars.”
		Kishin Taisen Gigantikku Fōmyura				
		War Gods Battle: Gigantic Formula				
	87	エヴァンゲリオン新劇場版シリーズ	Movie	2007 – present	4 (planned)	A revised and remixed version of the television series, spread over four separate films (three of which have been released to date as of January 2014.) Creator Hideaki Anno used the latest CG animation to refine and expand his creative vision. An undeniable artistic high point for the robot genre.
		Evangerion Shingekijouban Shirīzu				
		Evangelion Theatrical Movies				
	88	マクロス F(フロンティア)	TV	2008 – 2009	25	Directed by Shoji Kawamori, it added private military companies and school drama to the series’ trademark triad of transforming aircraft, idol singing, and love triangles. CG was utilized to the fullest in rendering the high speed action of the variable fighters and the hulking size of the spaceships.
		Makurosu Furontia				
		Macross F (Frontier)				
	89	鉄のラインバレル	TV	2008 – 2009	26	Based on a manga series of the same name that was heavily inspired by post-90’s robot anime. The robots and action scenes were modeled in full CG, allowing for dramatic performances that would have been difficult to create with traditional cel animation.
		Kurogane no Rainbareru				
		Linebarrels of Iron				
	90	RIDEBACK	TV	2009	12	Based on a manga of the same title. A fusion of CG (to portray the motorcycle-like robots) and traditional animation techniques (for their riders.) The tiny, compact “Ridebacks” represent extreme examples of what could be considered a “rideable” robots.
		Raidobakku				
		RIDEBACK				
	91	機動戦士ガンダム UC	OVA	2010 – present	7 (planned)	Based on a novel by Harutoshi Fukui that filled in a “missing link” in the Universal Century timeline. Noted for its highly refined, seamless fusion of CG and traditional animation techniques, allowing the Gundam universe to be rendered in exquisite detail.
		Kidō Senshi Gandamu Yunikōn				
		Mobile Suit Gundam Unicorn				
	92	輪廻のラグランジェ	TV	2012	24	Noted for having designers from automaker Nissan design the three main robots in the show. As they transform into aircraft as well, a great deal of attention was paid to aerodynamics, resulting in unique, gracefully curving designs.
		Rinne no Raguranje				
		Lagrange: The Flower of Rin-ne				
	93	花の詩女 ゴティックメード	Movie	2012		Director Mamoru Nagano almost singlehandedly produced this film, including design, script, storyboarding, layout, and key animation. It represents a crystallization of the creator’s concept of robot action, down to the robots’ structures and even the sound they make as they move.
		Hana no Utame Gottikkumēdo				
		The Songmaiden Gothicmade				

2000s	94	超速変形ジャイロゼッター	TV	2012– present	On air	A tie-up with several automakers, it incorporates actual cars into the storyline as transforming robots. A fusion of road racing and robot action genres, this unique collaboration aims to make cars cool among young people again.
		Chōsoku Henkei Jairozettā				
		Super High Speed Transforming Gyrozetter				

4.2. Related Series

4.2.1. Although the following series did not feature giant robots, they featured robot protagonists and represent highly popular and influential productions.

	No	Title (Japanese)	Medium	Broadcast, Release, or Sale	Episodes	Notes (Selected Highlights)
		Title (Transliterated)				
		English Title				
	1	鉄腕アトム	TV	1963 – 1966	193	“Mighty Atom.” The titular protagonist is a robot boy with human emotions. An iconic, groundbreaking, genre-forging hit that had (and continues to have) a tremendous impact on real-world robotics engineering in Japan. It was broadcast in the United States as “Astro Boy.”
		Tetsuwan Atomu				
		Astro Boy				
	2	エイトマン	TV	1963 – 1964	56	Featured new type of robotic protagonist: a human whose memories have been downloaded into a robotic body. An interesting fusion of the traditional “morphing hero” concept with a more realistic science-fictional element. More accurately, the hero is a “cyborg” rather than a robot.
		Eitoman				
		8 Man				
	3	キューティーハニー	TV	1973 – 1974	25	A perfectly human-looking android stars in this sci-fi series that launched the “fighting heroine” genre. It was also a great influence on the “magical girl” genre of shows as well. There are a variety of direct to video and theatrical versions as well, including a 2004 live-action remake directed by none other than “Evangelion” creator Hideaki Anno.
		Kyūtī Hanī				
		Cutie Honey				
	4	ドラえもん	TV	1979 – 2005	1,787	Featured a robot cat from the future who helps his owner by producing all sorts of gadgets from a “4D pocket.” Established the concept of robots as friends instead of warriors. A long running success, Doraemon arguably represents Japan’s single most popular animated character.
		Doraemon				
	5	ブラレス3四郎	TV	1983 – 1984	37	A show centered on robot combat as a sport or hobby; the protagonists built their own robots, then had them square off against one another to test their strength and technique. A clear inspiration for modern-day robot fighting competitions such as “ROBO-ONE.”
		Puraresu Sanshirō				
		Sanshiro, the Plastic Wrestler				

4.2.2. Other Influential Giant Robot Productions

	No	Title (Japanese)	Medium	Release Date	Episodes	Notes (Selected Highlights)
		Title (Transliterated)				
		English Title				
	1	やぶにらみの暴君	Movie	1952		This French masterpiece includes the very first appearance of a piloted robot in an animated film. Its ball-jointed structure and searchlight eyes make it an ancestor of “real robot” designs. The film was originally released in an incomplete form; it was finally finished and re-released under a different name in 1980.
		Yabunirami no Boukun				
		Le Roi et l'Oiseau				
		The King and the Bird				
	2	空とぶゆうれい船	Movie	1969		The scenes featuring the giant robot attack were done by a then-unknown Hayao Miyazaki. The sense of size and the performance of the robot were a great influence on later productions.
		Soratobu Yūreisen				
		The Flying Ghost Ship				

4.2.3. Influential “Tokusatsu” (Live Action) Productions

	No	Title (Japanese)	Medium	Broadcast, Release, or Sale	Episodes	Notes (Selected Highlights)
		Title (Transliterated)				
		English Title				
	1	地球防衛軍	Movie	1957		Featured the very first appearance of a giant robot in a Japanese film: the alien invaders’ towering mechanical monster “Mogera.” The appearance of a second one hinted that Mogera was but one of a mass-produced series of giant robots, another influential point. Special effects by the legendary Eiji Tsuburaya.
		Chikyū Bōeigun				
		The Mysterians				
	2	怪獣マリンコング	TV	1960	26	A live-action TV series featuring an evil robot monster. Although he appeared to be a living creature, Marine Kong was actually a remote-controlled robot. A second version appeared during the series as well.
		Kaijū Marinkongu				
		Marine Kong				
	3	マグマ大使	TV	1966 – 1967	52	“Ambassador Magma.” Based on the Osamu Tezuka manga of the same name. The hero was a cyborg designed by a being called “Earth,” the creator of our planet. Although impossible to portray in toy form, the hero’s ability to morph into a rocket represents an early transforming concept. Broadcast in the USA as “Space Giants.”
		Maguma Taishi				
		Ambassador Magma				
	4	ジャイアントロボ	TV	1967 – 1968	26	Another creation of Tetsujin 28-gō creator Mitsuteru Yokoyama. This time, the titular giant robot fought giant monsters. Besides being live action, the series differentiated itself from its predecessor with a wristwatch remote controller and missile-firing fingers. Broadcast in the USA as “Johnny Socko and his Flying Robot.”
		Jaianto Robo				
		Giant Robo				
	5	サンダーバード	TV	1966	32	British sci-fi “Supermarionation” TV series featuring the exploits of an international rescue team. The launch sequences of the various Thunderbird vehicles were a deep influence on Japanese animators, as were the concepts of the “transforming” Thunderbird 1 and “combining” Thunderbird 2.
		Sandābādo				
		Thunderbirds				
	6	ウルトラマン	TV	1966 – 1967	39	A live action series featuring a giant hero squaring off against giant monsters. The appearance of different monsters every week, the teamwork of his human comrades, and the catharsis of the hero using his “finishing move” to defeat the monster of the week were big influences on Japanese robot anime.
		Urutoraman				
		Ultraman				
	7	ウルトラセブン	TV	1967 – 1968	49	The sequel to Ultraman. Aimed at an older demographic, it featured a more militaristic team and deeper sci-fi elements. The robot invader “King Joe,” which could split into four components, is a direct ancestor of combining robot designs.
		Urutorasebun				
		Ultraseven				

	8	キングコングの逆襲	Movie	1967		The second in Toho’s King Kong series. It featured “Mechanikong,” a robot copy of the legendary giant gorilla. The concept of a robotic doppelganger inspired the later “Mechagodzilla.”
		King Kong no Gyakushū				
		King Kong Escapes				
	9	スーパーロボット レッドバロン	TV	1973 – 1974	39	Utilized live-action special effects to surpass the quality and realism of cel animation. A steelmaking company was enlisted to produce the Fiberglas costume for the hero character. As a piloted giant robot, it competed head-to-head with the then wildly popular animated series “Mazinger Z.”
		Sūpā Robotto Reddo Baron				
		Super Robot Red Baron				
	10	ジャンボーグ A	TV	1973	50	Utilized rotoscoping animation, a forerunner of modern motion-capture techniques. The piloted giant robot was replaced mid-way through the series by “Jumborg 9,” the first appearance of a “Unit 2” robot in Japanese sci-fi.
		Janbōgu Ēsu				
		Jumborg Ace				
	11	スパイダーマン	TV	1978 – 1979	41	Toei licensed the famous Marvel Comics character to create this domestic version of the hero. Spiderman is about the only recognizable vestige of the original storyline; in the Toei version, he was given his powers by aliens from the Planet Spider and pilots a giant robot called Leopardon.
		Supaidāman				
		Spiderman				
	12	バトルフィーバーJ	TV	1979 – 1980	52	Produced under license from Marvel Comics, it was inspired in parts by “Captain America” and his little-known female counterpart “Miss America.” It successfully introduced a giant robot to the “Sentai” (five-man team) concept, launching the “Super Sentai” series. Later entries gave rise to the “Power Rangers.” Giant robots and carrier ships appear in many of the series, which encompasses 37 titles and counting today.
		Batoru Fibā Jei				
		Battle Fever J				
	13	X ボンバー	TV	1980 – 1981	25	A Japanese-produced puppet sci-fi show. This space opera featured three spacecraft that could combine into the towering robot “Big Dai X.” Renamed “Star Fleet,” it was broadcast in England as well.
		Ekkusu Bonbā				
		X Bomber				
	14	ガンヘッド	Movie	1989		A robot production harnessing the talents of animation titan Sunrise and special-effects titan Toho. Many animation professionals contributed to the visuals. A life-sized, six-meter prop of the robot character was unveiled to great fanfare as PR for the film.
		Ganheddo				
		Gunhed				
	15	ロボジョックス	Movie	1990		An American live-action giant robot film, based on a script by sci-fi author Joe Haldeman. A production deeply influenced by giant robot anime. The action was filmed entirely using models.
		Robo Jokkusu				
		Robot Jox				
	16	トランスフォーマーシリーズ	Movie	2007 – 2011		The wildly successful live-action version of the animated Transformers series. CG allows the robots to be rendered in exquisite detail and motion as they transform. A great merchandising success as well.
		Toransufōmā Shirīzu				
		“Transformers” Series				
	17	パシフィック・リム	Movie	2013		A live-action film featuring giant robots from various countries fighting kaiju monsters. Conceptually and visually, a great homage to Japanese robot anime and tokusatsu productions.
		Pashifikku Rimu				
		Pacific Rim				

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