LOOKING TO THE MOUSE: 
THE PLAUSIBLE IMPOSSIBLE IN ARCHITECTURE AND ANIMATION

BY

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Fig. 01
*It All Started with a Mouse.*
This thesis explores architecture through the lens of character driven animated film. It will critically analyze select films from the Disney and Pixar catalogue. The research focuses on four films as case studies and undertakes a visual and textual analysis of critical spaces to understand how animation responds to two contemporary themes: environmental stewardship and social sustainability. To link animation to architecture, the thesis considers the plausible impossible, a principle of Walt Disney’s animation concerning making the impossible appear rational. The plausible impossible is the method to explore both animation and visionary architecture. Visionary architecture and its associated theories have an extant tradition of exploring the plausible impossible through unbuilt projects that serve to initiate vital discourse within the architectural profession. In conclusion, the thesis exploits the inherent commonality between he plausible impossible and visionary architecture to consider animation as a novel approach to explore pressing architectural issues.
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**spoiler alert** | \ spoi-ler a-lərt \\

(in a discussion or review of a film, book, television drama, etc.) a warning that an important detail of the plot development is about to be revealed.
“Architecture is where imagination meets life... It imbues our daily lives with a sense of wonder and excitement.”
- Thomas J. Pritzker, introduction to the 2010 Pritzker Architectural Prize recipients, Kazuyo Sejima and Ryue Nishizawa

“You might as well look at society as a place where you can really make a difference and make your dreams and other dreams possible. And you create a beautiful vision for yourself and the people around you. And the more you believe in it and the more power you give to it, the more you can get it into the world. Because there is nothing more powerful than intention. When you have a very powerful intention, the universe shifts a bit because it creates a possibility that your vision can occur.”
- Douglas Cardinal, personal conversation, 2020
Architecture has been described as an act of optimism. It is a profession which demands its practitioners believe in the possibility of a better building, a better city, a better future. It is predicated on the idea that the built environment is more than a set-piece on the stage of the world, but rather an active participant in the human experience. Driven by that conviction, the architectural profession is ever pursuant of new and innovative ideas. The practitioners of architecture regularly look beyond their own profession to the worlds of art, technology, science, and history for inspiration. It is curious then, that architects have seemingly left character-driven animated film untapped.

Animation, too, is an optimistic act. As exemplified in the films of Walt Disney Animation Studios and Pixar Studios, animation seeks to promote the simple virtues of love, forgiveness, empathy, kindness, selflessness, and
sharing, believing that they can instill in their audience a sense of hope and optimism for the future.\textsuperscript{2} In recent decades, Disney and Pixar films have begun to address more challenging themes, such as the environmental crisis, racial inequality, and disability. The mature messages in the narratives of these films are supported and occasionally driven by the built (drawn) environment which is developed through the animation principle, the “plausible impossible.” Disney and Pixar Studios use the plausible impossible in their animated films to translate those deeper messages in a way which the audience can absorb and understand without feeling like they are being lectured. It is in this way that \textit{Zootopia}, a film ostensibly about a utopian metropolis of traditionally predator and prey animals living in perfect harmony, becomes a springboard for conversations about race relations, equality and accessibility. The purpose of this thesis is to take steps towards opening up a productive discourse between the fields of architecture and animation, not as a tool of architecture, but as an autonomous form of storytelling and world-building.

Growing up as a child of the Canadian middle-class, I was surrounded by Disney culture. My parents had a vast collection of Disney and Pixar VHS’s, Disney toys and collectibles filled my room, and when I was six we went to Walt Disney World. Like so many other children around the world, Disney and Pixar films were a part of my young life.
By my teenage years I had seen all the classics, from *Snow White* to *The Jungle Book*, and could sing all the songs. I loved these films: the animation, the music, the storytelling, and the trademark nostalgia that defines the Disney oeuvre. In some ways, this thesis was conceived as a passion project; an attempt to elevate these films which I love to a level of academic discourse in architecture. This endeavour was complicated however, by an ongoing reassessment of what the Disney brand means to other various audiences.

As I entered adulthood, my relationship to these films and the Disney legacy overall began to change. I still looked forward to the next animated feature with excitement, but my personal lens had become more critical both towards new films and the old classics. Coincident with a rising call for historical reevaluation, I was forced to reconcile my admiration for Walt Disney — the man and the organization — and their history of racism, cultural colonization and appropriation, sexism, and bigotry both within and around the production of their films. This complicated history is important to acknowledge when undertaking a study of Disney and Pixar films.

This thesis acknowledges the deep rooted issues that are present in Disney and Pixar’s film catalogue, but its focus is to study the specific, isolated worlds created within certain films and to understand them for use of space as a narrative and communicative device. What is important to note of the
selected movies is where they make specific commentary on
one social issue, while seemingly blind to others. My analysis
does not absolve the films from their pressing critiques —
these critiques exist — rather, it is to use Disney and Pixar
Studios, as producers of popular and familiar animated films,
to introduce character-driven animated storytelling as novel
inspiration for architects to reassess their role in addressing
urgent issues through thoughtful, informed design. Disney
and Pixar Studios is the starting point. It is my hope that
from this thesis, others may be inspired to investigate the
potentialities offered by the films of other animation studios
such as Japan’s Studio Ghibli and Ireland’s Cartoon Saloon
which present unique cultural perspectives and storytelling
styles.

The films chosen for this thesis are ones which I
believe are reflective of a shifting consciousness in the world
at large as well as within the fields of both architecture and
animated storytelling regarding issues of environmental
stewardship and social sustainability, as well as their
relationship to each other. The four films are: The Lion King
(Disney, 1994), Wall•E (Pixar, 2008), Up (Pixar, 2009), and
Zootopia (Disney, 2016). Though it was not the original
intent of the animators, I will be considering these as both
animated films and works of visionary architecture. Framed
as such, the concepts of environmental stewardship and
social sustainability will be explored as they relate to both
principles of architecture and character-driven animation through my perspective as one unique experience of these films. I engage in a visual analysis and critical interpretation of each, highlighting those moments in the film which offer an opportunity for further architectural discussion, and reinforce these concepts through illustrative images.

Concurrent to the writing analysis of these four films, I developed my own series of vignettes — a kind of storyboard — through which I further explore Disney and Pixar's use of the plausible impossible to convey serious social and environmental commentary under the guise of whimsical children's films. Of particular concern is discovering the ways in which these types of films use their animated, 'built,' environments to support narrative themes, thereby identifying the ways in which animation may implicate architecture and encourage architects to pursue unique perspectives and find new insights.

The thesis is separated into three sections. Part One establishes the framework of the thesis around which a methodology of investigation is built. This includes identifying key terms and concepts and establishing their relevant historical and academic contexts. From key texts by Bob Thomas (Walt Disney: An American Original) and David A. Price (The Pixar Touch), as well as archival footage, a biographical portrait is made of the world's most ubiquitous animation studios, Disney and Pixar, and their respective
approaches to the art of film making and storytelling. Articles by Steven Watts, Robert Neuman and David I. Berland are used to establish the critical role of the Walt Disney organization in American and global culture. Herbert Muchamps and Arthur Drexler are used to frame an understanding of visionary architecture, and the Brundtland Commission, Gaston Bachelard, the Hawke Research Institute, and John Morelli are used to frame definitions of social sustainability and environmental stewardship. In Part Two the rationale for the selection of films is outlined followed by a visual and critical analysis of the individual films through the lens of the plausible impossible and the implications therein related to the concepts of environmental stewardship and social sustainability. These written analyses are accompanied by detailed, analytical illustrations which facilitate a deeper understanding of the relationships between narrative and space enthuse films. I will also explore these implications through a series of vignettes, following the development of my own short character-driven narrative. Part Three will synthesize and reflect on the opportunities these films present, highlighting how we may use the unique storytelling techniques of Disney and Pixar animated films to address critical issues facing the profession today.
Preface Endnotes

PART ONE

A MOUSE & A LAMP WALK INTO
AN ARCHITECT’S OFFICE
From the cave paintings of prehistory to the frescoes of ancient Rome, people have shared their stories through graphic imagery. And for nearly as long as we have been making drawings, we have been trying to make drawings move. “As early as 70 BC there is evidence of a mechanism that projected hand-drawn moving images onto a screen.”¹

The art form of animation as we understand it today was born only little over a century ago with the advent of photography. The initial vocabulary of early animated films, however, stem from the American tradition of the newspaper cartoon. With the growth of the newspaper industry in the United States between 1870 and 1900, cartoonists gained popularity illustrating political and cultural satire in the weekly publications.² [Fig. 04] These newspapers provided fruitful ground for future animators to hone their

“I hope we never lose sight of one thing - that it was all started by a mouse.”
Walt Disney

¹
²
communicative drawing skills, expressively sharing their opinions through tongue-in-cheek caricature. By the early 1900s, several former newspaper cartoonists emerged as pioneers of early animation, each developing the methods and technologies that would become standards of animation.

Early innovations based on the Praxinoscope dazzled audiences in the 1870s and ‘lightning cartoonists’ dabbled in proto-animation in the 1890s. These works paved the way for what is generally accepted as the first animated film — that is, the first film to be drawn and photographed frame-by-frame. Completed in 1906 by Stuart J. Blackton, *Humorous Phases of Funny Faces* was a succession of simple line drawings, each one slightly different from the last to depict a character’s movement. [Fig. 05] Each drawing was captured on film chronologically and played back at a rate of 20 frames per second, giving the illusion of movement. In short order, line drawings became full-bodied characters shaded in black and white. Within a few years characters were fully fleshed out in colour. Translucent paper allowed for more accurate reproduction of the characters on each successive image, and mounting pegs ensured that they would be captured on film in the exact same location as the last. In 1924, rudimentary attempts at synchronizing sound to film brought in a whole new dimension. In 1928, Walt Disney would perfect the merger with *Steamboat Willie*, Mickey Mouse’s debut appearance. In 1937 Walt Disney Animation
would revolutionize the medium with the invention of the multiplane camera, literally adding a new dimension to animated films by allowing for precise control over the depth of field in every frame. In the same year the company would release the first-ever full-length animated feature film, *Snow White and the Seven Dwarves.*

Walt Disney Animation Studios

Walt Disney was born in Chicago at the turn of the century, but spent his youth on a farm in Marceline, Missouri, and later in Kansas City. Walt’s early years in the pastoral mid-west imbued him with rural sensibilities and a sentimental realism carried over from the nineteenth century. From his socialist father he inherited an empathy for the ‘common man,’ an enduring quality which would largely define his creative output. Walt knew from a young age that he wanted to be an artist. He had a middling talent for draughtsmanship, but more than made up for it in creativity, enthusiasm, and charm. After spending some time in France as an (underage) Red Cross volunteer during the Second World War, Walt returned to Kansas City and secured a job with a local advertisement agency. There, his work consisted of drawing advertisements and letterheads for farm equipment and supplies companies. The following year, Walt Disney and his new friend and coworker, Ub Iwerks, were hired as artists for the Kansas City Slide Company. It was
here that Walt was first introduced to the art of animation.\textsuperscript{10}

Walt quickly learned the basics of animation and studied the techniques used by the industry’s best. He encouraged his employer to invest more in new technologies, making the advertisements more fluid and impressive. In the evenings Walt would experiment in his garage with a camera he borrowed from work. From that garage he began making his own animated shorts to distribute to Kansas City movie theaters.\textsuperscript{11} He and Ub eventually quit their jobs and dedicated their full time to their new enterprise, Laugh-O-Gram Films, incorporated in 1922.\textsuperscript{12} They enjoyed moderate success for some time, building a workforce of several young animators and producing some popular films. However, by 1923 Walt had been forced to lay off his animators, Ub returned to the Kansas City Slide Company (now the Kansas City Film Ad Company), and Walt had resigned himself to bankruptcy.\textsuperscript{13} Despite these devastations, Walt kept his optimism intact and managed to secure a film deal with a major New York distributor. With the promise of something new, Walt Disney headed to Hollywood.

In Hollywood, Walt began a series of shorts based on Lewis Carroll’s \textit{Alice’s Adventures in Wonderland}. \textit{The Alice Comedies} were unlike anything the public had seen before: a live-action Alice inhabiting a fantasy world of animated sequences.\textsuperscript{14} [\textit{Fig. 09}] Walt was able to persuade Ub to join him in Hollywood and from 1924 to 1926 the series was a
significant success. Walt’s follow-up to the success of the Alice Comedies was a new animated character named Oswald the Lucky Rabbit. [Fig. 10] The Oswald films proved even more successful giving Walt and his animators a chance to further develop their narrative and technical skills. His good fortune would soon run dry, as shortly thereafter he lost the rights Oswald and more than half his animators to his former distributor.15

Forced once again to start virtually from scratch, Walt and Ub poured their collective efforts into a new character, Mickey Mouse. As the animators fulfilled the final two films of their Oswald contract, they worked in secret on the first Mickey cartoon. Once it was completed, Walt was sure Mickey would become the most famous cartoon in the world. While Walt canvassed for distributors for Mickey, Ub and the animation team continued to work the second Mickey film. In 1927 Warner Bros. released the Alan Crosland film The Jazz Singer, forever changing the film industry. The Jazz Singer was the first feature film to have fully lip-synchronized sound and music.16 Walt was quick to realize the potential of this innovation for his own work. With the third Mickey film, Steamboat Willie, Walt and his team had mastered the art of synchronized sound and vision. [Fig. 11] After failing to find a distributor for the first two Mickey films, Steamboat Willie could not be ignored. It premiered at the Colony Theatre in New York City on November 18, 1928, and was described as
“the sensation that Walt had dreamed it would be.” Mickey Mouse was an instant star and made a celebrity of Walt Disney.

By 1934, after enjoying unprecedented success with the Mickey films and his Silly Symphonies series, which saw the addition of technicolour to his musical films, Walt felt that animation was narratively constricted by the ‘short’ format. He resolved to make a full feature-length animated film. Dubbed ‘Disney’s Folly’ by critics, work began on Walt Disney Productions’ *Snow White and the Seven Dwarfs*. For the next three years Walt Disney and his team of animators worked tirelessly on the *Snow White* project, while continuing to produce short films like *The Three Little Pigs*, and *The Wise Little Hen* — which introduced Mickey’s pal Donald Duck. During this time Walt became frustrated with the limitations of the technology he was using to film his animations, particularly the “essential flatness of the animated film.” He was worried that, while “audiences would except the cavortings [sic] of two-dimensional pigs and wolves against painted backgrounds for an eight minute span - eighty minutes would emphasize the artifice of the animation process.” Walt sought a way to attain more depth in his pictures; he felt that the success of *Snow White* depended on it.

“The answer was the multiplane camera. It developed into a towering device with a camera pointed downwards
through four or five layers of paintings. The various levels depicted planes of vision, and the lens focus could be moved through the planes, creating the same effect of a moving camera in live action.\textsuperscript{21} [Fig. 12] Walt tested this new technology in the Silly Symphony, \textit{The Old Mill}, which won an Academy Award, but more importantly, “showed Disney artists what could be accomplished in terms of mood and visual imagery.”\textsuperscript{22} The multiplane camera would be utilized to great effect in \textit{Snow White and the Seven Dwarfs}, adding a realistic sense of experience to the film. [Fig. 13] Far from folly, Walt’s gamble on \textit{Snow White} proved to be his most commercially and critically successful venture yet. At the Academy Awards that year, the young Shirley Temple presented Walt with an honorary OSCAR, and a custom statue which featured one regular sized figure, and seven miniature statuettes. Walt Disney had cemented his place in American popular culture.

It is difficult to separate the global entertainment giant that is the Walt Disney Corporation today from the beginnings of its eponymous founder and his team of animators. After his pioneering efforts in animated film he turned his attention to live-action cinema and television. Finally, in 1955 he revolutionized family entertainment with the opening of Disneyland in California. [Fig. 14] After his death in 1966 his legacy only grew. For nearly a century, “Disney has played a formative role in American Culture.
Generations have grown up with the studio’s creations.” Since the release of the groundbreaking *Snow White and the Seven Dwarfs*, Walt Disney Animation Studios has remained the most commercially successful animation studio worldwide, influencing “popular views of family, gender, race, and the environment over the past century,” and it continues to exert a powerful hold over audiences to this day.

**Pixar Animation Studios**

Unlike the myth of the Disney empire which is built on the hard work of one man's genius, the Pixar story is much more involved, intersecting with such luminaries as George Lucas and Steve Jobs. Both origin stories, however, center on individuals with a passion for animated storytelling, experimenting with new technologies and techniques to propel the medium forward. By the 1970s, animation was a well-established medium in America and had become a staple of children's entertainment. While there were some significant contributions to the art form from Japanese animation pioneers like Osamu Tezuka, Hayao Miyazaki, and Isao Takahata, very little had changed within the industry's technological process since *Snow White* — everything was still hand drawings and celluloid. The individuals that would eventually come together to form Pixar Animation Studios hoped to change that with a new piece of technology: the computer.
There are three principle characters who may be credited with the formation and success of Pixar: Ed Catmull, Alvy Ray Smith, and John Lasseter. [Fig’s. 15-17] Catmull’s road to Pixar began at the University of Utah where he earned a degree in computer science in 1969 and would later earn a PhD. In his youth Catmull had aspired to be a Disney animator but had concluded that he did not have the talent to draw. Now, he thought, perhaps the computer can do the drawing for him. Thus, he began his foray into computer animation. In 1972 he completed one of the first examples of computer animation captured on film: a one minute video of his left hand, produced with a 3D animation program of his own writing. The result was jaw-dropping. With a copy of the film in hand, Catmull's professor arranged a meeting with executives from Walt Disney Animation to see if they would be interested in this revolutionary program but they declined.26

In 1974 Catmull received a call from the New York Institute of Technology. The founder and president of the university, Alexandre Shure, had recently established an animation studio at the school and was looking for equipment to operate it when he was handed a promotional film for a computer hardware company which featured Catmull's hand film. [Fig. 18] By the end of the year Catmull had become the Director of the NYIT Computer Graphics Laboratory tasked with building a team to experiment with
3D computer animation. Alvy Ray Smith came from a similar educational background, studying computer programming at New Mexico State University. He earned a PhD from Stanford before becoming a teacher at New York University. An epiphany in 1973 inspired him to quit NYU and return to California, believing “something good was going to happen.” His premonition proved true when a friend working at Xerox’s Palo Alto Research Centre (PARC) invited him for a tour of the laboratory. There, Smith was introduced to a new painting software machine called ‘SuperPaint.’ Using a tablet and a stylus, it offered many of the most basic functions of a modern painting software. The machine stunned Smith, who described it as “a colour TV ‘paintbrush’ hooked up to a computer.” Smith started working at PARC in August of 1974 with the assignment of creating a promotional film for SuperPaint. He and a coworker, David DiFrancesco, spent the next year experimenting with SuperPaint until Xerox pulled the plug on their program, laying off Smith and DiFrancesco.

The pair were determined track down another piece of machinery with the technology of the SuperPaint. Their search led them first to the University of Utah and Catmull's old professor who informed them that while he did not have the equipment at the university, he knew where they would be able to find one: the New York Institute of Technology.
Smith and DiFrancesco were welcomed at NYIT by Catmull who was happy to have two new research partners. Together with a few other hires, their job was to do whatever they thought was important, as long as it contributed to the ultimate goal of putting together a feature-length computer animated film. Sometime in that first year at NYIT Catmull and Smith reached out to the Disney organization to gauge their interest in their work. Once again they were turned away.32

The Computer Graphics Lab became like a “fraternity of geeks,”33 as every member worked to solve some hardware problem or programming issue. The group also spent their first year at NYIT learning the principles of cel animation from a group of traditional animators Shure had developing a feature film. While the Computer Graphics set gleaned much from their analogue counterparts, the true revelation came after the completed film premiered in 1975.34 The film was called *Tubby the Tuba* and boasted the voice talents of Dick van Dyke. Still, the film was a complete disaster, with one animator exclaiming “I’ve just wasted two years of my life!”35 after the credits rolled. Catmull and Smith had to face a disappointing truth: “For them to make worthwhile films someday — not just R&D exercises to show at SIGGRAPH meetings — there also had to be people on board who understood film storytelling. Shure. . . could not be their Walt Disney.”36
Catmull and Smith remained at NYIT for the next several years, developing their technologies and amassing a very impressive team of engineers and computer programmers. In 1979 they received a call from LucasFilm. *Star Wars* had come out a couple years prior and contrary to popular belief, all but one scene in the film was made using practical effects and traditional animation. Industrial Light and Magic (ILM), LucasFilm's special effects outfit, did not even have a computer. George Lucas was looking to put together a team of people with knowledge of computers to modernize the tools of filmmaking. Ed Catmull, seizing on the opportunity to work for a real filmmaker, became the head of LucasFilm's newly formed Computer Graphics Division later that year. Over the next year and a half six of his colleagues from NYIT quietly followed him.³⁷ They had a new patron now — “one who was, at the moment, perhaps the most famous filmmaker on the planet.”³⁸ In Lucas they had found a new hope.

Lucas had high demands for his new division in all areas of film post-production — “digital film compositing, digital audio mixing and editing, and digital film editing.”³⁹ However, “as Catmull and Smith saw it, there were the goals Lucas had set down, and then there was the one he ought to have, but didn’t—namely, computer animation.”⁴⁰ Despite employing “perhaps the world's top technical talent in 3D animation,”⁴¹ Lucas was not asking the group to do
any. They finally got their chance in 1981 when Paramount Pictures contract ILM to work on *Star Trek II: The Wrath of Khan*. Catmull and Smith’s group were able to impress the ILM people enough to be invited to work on a key sequence in the film. They were finally in the movie business. Within LucasFilm however, little changed for the aspiring computer animators. They continued to work on Lucas’ computer projects while Catmull and Smith sought out other production opportunities.

Around 1983 Catmull and Smith were approached by a young Disney animator interested in 3D computer animation, a rarity for professional animators. He was making a short film and wanted to integrate the Computer Division’s 3D animation. Catmull and Smith spent some time discussing the project with the young man at Disney Animation in Burbank after which they did not hear from him again for several months until Catmull crossed his path at an industry conference. When Catmull relayed to Smith that the project had been canceled and the young man fired, they hired him on the spot. John Lasseter joined LucasFilm’s Computer Division in December of 1983, completing the triumvirate of Catmull, Smith, and Lasseter which would lead the computer animation revolution.

Like Ed Catmull, John Lasseter aspired to be a Disney animator. Unlike Catmull, Lasseter had a talent for hand drawing. In 1975 he received an invitation from the California
Institute of the Arts (CalArts) to apply to its new character animation program. By the time he graduated from CalArts he had won back-to-back Student Academy Awards for animation in 1979 and 1980. He then joined the studio as a junior animator where he quickly became restless. The animation studio had become somewhat dormant in the decade and a half since its founder had died. Without Walt there to make the big decisions and take the big risks, those in charge had to fill that inimitable role, and the animation suffered for it. “Many of the younger artists were deeply frustrated with what they saw as the studio’s cheapness and artistic timidity,” Lasseter included. “This was not what I always dreamed Disney was,” he later recalled.

After a brief time away from Disney working for a London-based animation studio, Lasseter returned just as production on Tron had begun in the live-action studio. The film would take place within a video game and so would require some substantially advanced special effects. Disney hired four different computer graphics production teams to work on it. Upon seeing the first computer generated scene to be made, Lasseter thought, “Walt Disney, all his career, all his life, was striving to get more dimension in his animation. . .This is what Walt was waiting for.” Lasseter made an impassioned plea to the animation executives to take an interest in this technology but Lasseter received the same response Catmull and Smith had gotten used to hearing.
Undeterred, Lasseter used his personal networking skills to secure funding from Disney’s head of live-action production to make a thirty-second promotional film. After completing this film Lasseter wanted to make a second, this time putting together a proposal to pitch to the animation executives. The idea was quickly rejected, and Lasseter was subsequently fired. Several months later he bumped into Ed Catmull at a conference and was invited to join the Computer Graphics Division at LucasFilm.

Lasseter's first job at LucasFilm was to work on the film Catmull and Smith hoped to show at the next SIGGRAPH. The completed film, titled *The Adventures of André and Wally B.*, premiered at the 1984 conference to resounding applause and tremendous industry acclaim.

Though the work was rudimentary and crude, the technological innovations the team had developed had worked to great effect, and more significantly the film's story had the character which their previous work had lacked. Trained at CalArts by some of Walt's 'Nine Old Men', Lasseter brought an accumulated knowledge from the Disney organization and the classic animation principles that had evolved over decades there. Lasseter was a storyteller who understood how to develop character and had a restless drive to one-up himself with every new project. Catmull and Smith had found their metaphorical 'Walt Disney'.

By 1985 George Lucas was ready to part with the
Computer Graphics Division. Catmull and Smith were worried he might break up this world-class team he had no vision for. Instead, LucasFilm executives instructed Catmull to find a buyer. The Graphics Division was going to be repackaged as a hardware company.\textsuperscript{52} \textit{[Fig. 21]} Catmull and Smith went along with the rebranding of their team, as long as it meant they could stay together. They still had plans to make a feature film with computer animation and they knew they would need their team to advance the technology to make it happen. After struggling to find a buyer, Smith was put in touch with the multimillionaire computer magnate, Steve Jobs. In the summer of 1985, Catmull and Smith met with Jobs, just months after his bitter ousting from Apple. In January of the following year, Catmull and Smith signed the

![Fig. 21](image)
\textit{The Pixar Imaging Computer II. Before they became full-time animators, Pixar made and sold computer hardware}

![Fig. 22-24](image)
\textit{Concept art and still frame of 'Luxo Jr.' This short film based on John Lasseter's lamp, inspired Pixar's iconic logo}
papers creating the new company, Pixar, Inc.\textsuperscript{53}

Lasseter and the small animating team continued to produce short films to promote the company’s computers at events like SIGGRAPH. For their first film under the Pixar name, Lasseter revisited a project he began back at LucasFilm inspired by his desk lamp.\textsuperscript{54} The resulting film, titled \textit{Luxo Jr}, was an immediate success at SIGGRAPH, achieving a level of photorealism unprecedented in computer animation, but more importantly capturing an emotional realism that computer animation had always struggled to reach. [Fig’s. 22-24] Lasseter painstakingly animated the two lamp characters to be incredibly expressive despite having no discernible face or voice. He had “succeeded in applying the Disney touch of thought and emotion to his characters.”\textsuperscript{55} A couple years later, in 1988, Lasseter produced \textit{Tin Toy}, testing the new PhotoRealistic RenderMan software Catmull’s group had designed. \textit{Tin Toy} won Pixar their first Oscar in 1988, for Best Animated Short Film. [Fig. 25] The recognition “established computer animation as a legitimate artistic medium”\textsuperscript{56} within the wider art form. It also prompted Disney to try to re-acquire the young animator they had let go several years earlier. Lasseter was unswayed, saying, “I can go to Disney and be a director, or I can stay here and make history.”\textsuperscript{57} History was just a few short years away.

Around that same time Ed Catmull and Alvy Ray Smith finally struck a deal with the Walt Disney Company.
Disney had begun to seriously consider replacing their traditional ink-and-paint process of colouring their films with computers. Pixar won the contract thanks in large part to the knowledge of traditional animation processes they picked up during their days at NYIT. The first test of the Computer Animation Production System (CAPS), in the final scene of 1989’s *The Little Mermaid*, was such a success that Disney immediately switched all of their feature animation to use CAPS. [Fig. 26] 1990’s *The Rescuers Down Under* would be the first film to be coloured entirely using Pixar’s technology. [Fig. 27]

In the summer of 1990 Pixar received the news that they had been waiting two decades for: Disney was interested in making a feature film with computer animation. Though there were other organizations doing computer animation, Pixar had made themselves the obvious choice with their successful rollout of CAPS and Lasseter’s unprecedented string of critically acclaimed short films. [Fig. 26] Negotiations continued for the next year until June 1991 when a contract was signed. During that time Alvy Ray Smith left Pixar to start his own company. The deal heavily favoured Disney, giving them ownership of the film, its characters, full rights to produce sequels without Pixar, sole discretion to abandon the project at any time, etc. None of this mattered to Catmull and Lasseter; they were finally going to make a feature film. In 1991 Lasseter presented his first treatment for
a film called *Toy Story*.

*Toy Story* premiered in November of 1995 after four years of hard work. [*Fig. 28*] Catmull, Lasseter and the Pixar team had much to learn about the production of a feature-length film. They combined the animation principles of Disney’s ‘Nine Old Men’ with their own techniques unique to computer animation to produce a film that deliberately promoted the capabilities of the craft while remaining a thoroughly entertaining film. “Although the film had Disney’s child-friendly imprimatur on it, the critics intuited that *Toy Story* was meant to connect with adults as much as children.”62 *Toy Story* became the most successful Thanksgiving debut ever, as well as the first animated film to be nominated for the Academy Award for Best Screenplay, in 1996. John Lasseter received a special achievement Academy Award for “for his inspired leadership of the Pixar *Toy Story* team.”63 For Lasseter, *Toy Story*’s success was validation “that an animated feature could eschew fairy-tale plots and instead focus on adult like characters with adult like problems, while providing entertainment to children.”64 It is this same approach which has come to define the oeuvre of Pixar’s work over the last two and a half decades.
As Time Went By

With the release of *Snow White and the Seven Dwarfs* in 1937, Walt Disney revolutionized animation as an art form and established it as a dominant form of children's entertainment for the next century. From the outset there has been a faction of academia dedicated to analyzing animated films for their implications on things such as childhood cognitive development, perception of race, gender, age, and self, and for their messaging about issues of equality, death, and love. When Pixar emerged in the 1990s with its own brand of storytelling, it invited this same kind of critical discourse by deliberately approaching more mature themes in their films. John Lasseter held a strong conviction that storytelling is important and that animation in particular had applications beyond mere entertainment. Certainly, he hoped to entertain with his films, but he also sought to reach deeper into the audience's mind and soul and draw out more meaningful conclusions, elevating the medium's potential for meaningful storytelling. The result is that nearly every academic field concerned with human behaviour and the human condition has extensively dissected Disney and Pixar films — except architecture. Animation offers extremely fertile ground for architectural discourse, not only in terms of representation but more significantly in its unique ability to present provocative imagery and scenario in a way that is not only believable, but that garners an emotional response.
1.1 An Animated History

Endnotes


7. To avoid confusion with Disney, the organization, Disney the man will henceforth be refered to as Walt Disney or simply Walt, as he preferred to be called.


10. Thomas. Walt Disney. p. 59-60

11. Thomas. Walt Disney. p. 62

12. Thomas. Walt Disney. p. 65

13. Thomas. Walt Disney. p. 66

14. Thomas. Walt Disney. p. 65

15. Thomas. Walt Disney. p. 69-87

16. Thomas. Walt Disney. p. 90

17. Thomas. Walt Disney. p. 96

18. Thomas. Walt Disney. p. 129


20. Thomas. Walt Disney. p. 134


22. Thomas. Walt Disney. p. 134


25. Osamu Tezuka is widely recognized as the ‘Godfather of manga.’ Hayao Miyazaki and Isao Takahata are the visionary duo behind Studio Gibli, which has been making beautiful traditionally animated films since the 1980s.


29. The device is called a frame buffer, which essentially allows the user to see on the screen a representation of real-world actions, which today we have become accustomed to in mice and trackpads.


32. Price. The Pixar Touch. p. 44-59

33. Price. The Pixar Touch. p. 51

34. Price. The Pixar Touch. p. 58

35. Price. The Pixar Touch. p. 57

36. Price. The Pixar Touch. p. 58

37. Price. The Pixar Touch. p. 60-68

38. Price. The Pixar Touch. p. 69


40. Price. The Pixar Touch. p. 76

41. Price. The Pixar Touch. p. 76

42. Price. The Pixar Touch. p. 79-82

43. Price. The Pixar Touch. p. 88-91
The Special Interest Group on Computer Graphics and Interactive Techniques (SIGGRAPH) is an annual conference of computer graphics and animators at which companies share their recent developments with the industry. SIGGRAPH became an important pilgrimage for Pixar as they developed their computer animation technology. Walt Disney’s ‘Nine Old Men’ refers to the group of nine animators that worked with Walt since before Snow White. They are Frank Thomas, Ollie Johnston, John Lounsbery, Marc Davis, Ward Kimball, Woolie Reitherman, Les Clark, Eric Larson, Milt Kahl. (D23. The Official Disney Fan Club. https://d23.com/a-to-z/nine-old-men/) Catmull and his hardware team had been building a set of devices “that could scan movie film, combine special-effects images with live-action footage in a computer, and record the results back onto film,” and a specialized computer to sit at the centre of the process. The team called their new computer the “Pixar Image Computer” — Pixar being derived from ‘Picture Maker’ and laser, owing to the computer’s use of lasers to scan film. (Price. The Pixar Touch. p. 125) Though he was a talented animator and director, Lasseter was unable to use the 3D modelling software himself, instead relying on others to execute his vision. In an effort to remedy this he set out to learn the modelling program. Looking around for inspiration he decided to model his desk lamp, a Luxo model. For the 1986 SIGGRAPH film, Lasseter built a story around the lamp. (Price. The Pixar Touch. p. 137-138) Catmull’s team spent about a year developing the Computer Animation Production System (CAPS) for Disney. The system “used Pixar Image Computers (PICs) to scan pencil drawings of characters, colour them, composite them onto scanned backgrounds and other image layers, and record the frames onto film.” It also replaced the multiplane camera as a means of achieving depth which had been in use since Walt Disney developed it in 1937. The system would eventually earn Disney and Pixar a technical Academy Award in 1991. For more information on these subjects: Dundes, Lauren. Psychosocial Implications of Disney Movies. MDPI AG, 2019. Robinson, Tom, Mark Callister, Dawn Magoffin, and Jennifer Moore. “The Portrayal of Older Characters in Disney Animated Films.” Journal of Aging Studies 21, no. 3 (March 18, 2018): 203–13. https://doi.org/10.1016/j.jaging.2006.10.001. Ward, Annalee. Mouse Morality: the Rhetoric of Disney Animated Film. Austin, TX: University of Texas Press, 2003.
1.2 THE PLAUSIBLE IMPOSSIBLE

In October 1956, Walt Disney hosted an episode of his weekly television show Disneyland, entitled “The Plausible Impossible.” The purpose of the episode was twofold: to highlight the animation principle of the plausible impossible, and to trace its origins and history. The plausible impossible, as defined by Walt, is “taking something that is against the laws of nature — something impossible — and making it appear rational and acceptable, in short, plausible.” It is the capacity of the author or storyteller to persuade the audience to suspend their disbelief and give themselves over fully to the narrative and the truth it holds. The plausible impossible concept predates the invention of film itself, however it is with the advent of animation that it reached its fullest potential.

Animation is not a genre, nor is it a medium. Practically, animation is the process of assembling a film
“frame-by-frame, providing an illusion of movement.”³

Functionally, however — artistically — the purpose of animation is “to give life and soul to a design, not through the copying but through the transformation of reality.”⁴ It is the visual representation of objects and ideas. This is what the plausible impossible achieves. “If it is the live-action film's job to present physical reality, animated film is concerned with metaphysical reality - not how things look, but what they mean.”⁵ The plausible impossible is one of animation's most essential principles, drawing on the audience's preconceived notions of reality in order to either satisfy or subvert expectations.⁶

Later in that October 1956 Disneyland episode, Walt outlines the important elements an animated film must have in order to make the impossible seem plausible. “Impossible cartoon actions will seem plausible if the viewer feels the action [they are] watching has some factual basis.”⁷ This he illustrates with the example of a cow whose bell is rung when her tail is pulled back. This is of course impossible, yet the anatomical connection between the tail and the bell — the spine — is a factual reality which makes the action seem plausible. Walt continues, “Another important factor in making cartoon action believable is correctness of sensation.”⁸ This means matching the visual action on the screen to the sensation one would have in a similar situation. Imagine an elevator abruptly beginning to ascend.

Fig. 29
The Plausible Impossible on display.
It would feel as if your body compresses towards the ground, and then stretches out when the elevator stops again. When Mickey Mouse rides an elevator, his body visually compresses so it is nearly flat to the ground when it starts up. When the elevator stops, his body dramatically stretches so that he appears thin and tall before returning to his normal stature. These principles are the essential elements to the physicality of plausible impossible animation, but there is another important factor: sound.9

The plausibility of animated films begins with the plausibility of the characters, but as Walt says, “The problem is that they are not real individuals; they must be created step by step.”10 The character begins as a series of drawings on a piece of paper. They are given colour and when viewed in rapid succession, they become animated. “Animation gives movement, which in turn gives life to the drawing,” Walt explains while drawing Donald Duck on piece of paper, “But equally as important as animation, is sound. Sound helps to give the character plausibility in two ways. First, by giving the character an appropriate voice, and second, to create convincing sound effects.”11 The idea of a convincing sound effect is similar to the example of the cowbell; the sound can be impossible, if the idea of it is grounded in some common reality. To illustrate this point, Walt makes an example out of Donald Duck, hitting him on the head with the pencil that drew him. While the audience knows that his head is not
hollow, it is this idea which lends plausibility to the sound which Donald's head makes — that of a hollow gourd. The combined effect of sound and action based some way in reality, whether perceived or actual, creates an animation that is impossible, yet remarkably plausible. By making the impossible appear plausible, animated films empower the viewer to inhabit those other analogous worlds and empathize with their characters, and in doing so invites the viewer to reconsider their personal associations with the world and their place in it.
1.2 The Plausible Impossible


2. Aristotle emphasizes the importance of “probable impossibility” in his landmark philosophical treatise on literary theory, Poetics, written around 350 BCE. He writes, “With respect to the requirements of art, a probable impossibility is to be preferred to a thing improbable and yet possible. To justify the irrational, we appeal to what is commonly said to be.”


4. Wells. Understanding Animation p. 10

5. Wells. Understanding Animation. p. 11

6. This concept is closely related to an arm of philosophy known as ‘speculative metaphysics,’ which is concerned with understanding and rationalizing the structure of the universe through theoretical deduction rather than practical observation or experience.


1.3 VISIONARY ARCHITECTURE

In a 2001 article entitled "Ideals Made of Paper and the Impact of the Unbuilt," New York Times resident architecture critic Herbert Muchamps wrote that, 

"...architecture is the materialization of metaphor in urban space. But the materialization process does not begin with building construction. It starts with the desire to make something. Or with an attitude, an inclination to sharpen perceptions or feelings and to share them with others. Materialization doesn't end with building construction, either. It continues with the formation of metaphors in other people's minds, and with the focusing of their desire to realize projects as enlivening as this show."

The show to which he was referring was the exhibition of the visionary architecture produced by Peter Eisenman, Bernard Tschumi, Rem Koolhaas, Thom Mayne and Daniel Libeskind.

[Fig. 31-33]
In analyzing the two practices, I have observed a similarity of concept between visionary architecture and animation; namely, the plausible impossible. In order to understand this association, it is first essential to define the concept of visionary architecture. The term ‘visionary’ is defined as “having or marked by foresight and imagination; incapable of being realized or achieved; existing only in imagination.” Visionary architecture can therefore be understood as an exercise in speculative design; projects which exist on paper and not necessarily in the built world. "Unhampered by technical details and uncompromised by the whims of patrons, or the exigencies of finance, politics, and custom," visionary architecture “affords [architects] the sole occasions when [they] can rebuild the world as [they] know it ought to be.” As such, visionary architecture is part of an “essential tradition... that keeps the field [of architecture] intellectually lively and grounds actual buildings in a larger theoretical discourse.”

Disney and Pixar Studios use the plausible impossible in the pursuit of fantasy, bringing realistic believability to the unreal characters, settings, and narratives of their films by grounding the unreal in some common reality. In the context of this thesis, I am suggesting that we similarly consider the plausible impossible as a principle of visionary architecture. Today, it is the essential purpose of visionary architecture to address contemporary social or
environmental crises within the architectural profession and the world at large. This is achieved through the presentation of compelling narratives and provocative designs which often exist just outside the realm of reality. The effectiveness of visionary architecture at conveying these social commentaries and eliciting a reaction relies on its ability to assure the audience of the plausible reality of the unreal design. As in plausible impossible animation, such projects must be grounded in some sense of recognizable reality, for when "Ideal projects are inspired by criticism of the existing structure of society... they may bring forth ideas that make history." In this context the plausible impossible is seen as a conceptual device which facilitates the dissemination of ideas and challenges practitioners as well as the general public to think more critically about the built environment.

Architects have been experimenting with visionary architecture for centuries. Near the end of the Enlightenment, in 1784, Étienne-Louis Boullée drafted *A Cenotaph for Issac Newton*, an impossibly large monument to the great astronomer, signalling an emergent schism in the theory of architecture as pure art from the science of building. [Fig. 34-35] The design is Boullée’s attempt to envision an architecture appropriate to the new ideology and social order emerging, in this case, from the Enlightenment. A century later utopian socialist Charles Fourier reacted to the writings of Karl Marx with his proposal of the *Phalanstère*, sprawling
complexes designed to accommodate a cooperative agricultural community which guaranteed “vast profits and numberless pleasures” to all members. The first half of the inter-war period saw the design of several notable visionary architecture projects. In 1935 Frank Lloyd Wright called for a radical transformation of American cities to restore the earlier Emersonian and Jeffersonian values with his proposal of Broadacre City: a technopolitan model which would see American populations return to rural living while maintaining close community bonds through the promises of new technologies like the telephone and the automobile. [Fig. 36]

Even Walt Disney, after finding success in film and television and later amusement parks with Disneyland, contributed to the tradition of visionary architecture with his original plan for E.P.C.O.T. in 1966. [Fig. 37] Described by Walt Disney himself in a promotional video, the Experimental Prototype Community of Tomorrow would “never be completed, but will always be introducing, and testing, and demonstrating new materials and new systems. And, E.P.C.O.T. will always be a showcase to the world for the ingenuity and imagination

Fig. 36
'Broadacre City,' 1935. Frank Lloyd Wright

Fig. 37
Walt Disney's original concept for 'E.P.C.O.T. 1966.' Art by Herbert Ryman
of American free enterprise.” These are just a few of the many examples of architects and thinkers exploring contemporary architectural and societal issues through visionary architecture in their time. Significant to this thesis is the work of 1960s pop-architecture collective Archigram and twenty-first century architect and film director Liam Young, specifically *Plug-in City* and *Planet City* respectively. These two projects will be discussed in more detail in section 1.5.

Visionary architecture, like animation, is a form of visual communication which is dependent on audience engagement to effectively elicit an emotional, logical, or critical response. I have argued that the plausible impossible native to the character-driven animated films of studios such as Disney and Pixar can also be understood as a conceptual device in visionary architecture, facilitating its commentary and critique on contemporary social concerns. By toeing the line between fiction and reality, “Visionary projects...cast their shadows over into the real world of experience, expense and frustration.” Since the 1960s, the object of visionary architecture’s scrutiny can often be categorized into one of two architectural dilemmas: environmental stewardship and social sustainability. These same issues are often the subject (or subtext) of Disney and Pixar Studios’ animated films, especially since the mid-1990s. By understanding how the plausible impossible is used to communicate the ‘visions’ of visionary architecture, we can refocus the lens to explore
how it may facilitate a similar phenomena in animated film. In doing so we can recontextualize the potential of animated film as architectural critique and better analyze how character-driven animated film can inspire architects to reassess their professional responsibilities and think more critically about the built environment. “If we could learn what they have to teach... Vision and reality might then coincide.”13
1.3 Visionary Architecture Endnotes


10. The Original EPCOT. “Walt Disney’s Original E.P.C.O.T Film (1966)”

11. The Original EPCOT. “Walt Disney’s Original E.P.C.O.T Film (1966)”


Visionary architecture has long been used as a way of critiquing prevailing architectural ideologies in the realms of aesthetics, technology, politics, and social order. The 1960s marks a critical moment in the tradition of visionary architecture for two reasons: the emerging globalization, various civil rights and gay liberation movements, the space race, and the Vietnam War, among other significant events, triggered an increasing social and environmental consciousness in the general public; second, this emergent consciousness generated a public appetite for visionary architecture that addressed the synthesized issues such as environmental stewardship and social sustainability. Though the specific issues of concern were unique to each continent, North America and Europe were both swept up in this fever of social action. It is within the context of
this transatlantic phenomenon that architects sought to "reinforce [architecture's] social and political agency towards emancipatory ends," by proposing radical, whimsical, and incisive solutions to the pressing dilemmas surrounding environmental stewardship and social sustainability. Three decades later, these dilemmas would once again dominate popular discourse, this time influencing the narratives of the animated films of Disney and Pixar Studios, however it is the 1960s that began to shape our contemporary understanding of these themes.

**ENVIRONMENTAL STEWARDSHIP**

In September of 1962, conservationist Rachel Carson published the influential environmental science book *Silent Spring*, in which she took aim primarily at the American chemical industry's damaging practices and misinformation tactics. Particularly provocative is the "Fable of Tomorrow" with which Carson opens her book. It describes a pleasant and bountiful town which has gone silent due to some "grim specter" that had crept among the town unseen. That specter was synthetic pesticides. *Silent Spring* has been credited as triggering a grassroots environmentalism in the United States which would lead to the enactment of several conservationist legislations over the next decade. Though the information in the book was not unfamiliar to those within the environmental science industry, Carson's
book effectively introduced the general public to the shady dealings between industry and bureaucracy and made the environmental movement popular.

At the opposite end of the decade, on December 23th, 1968, astronauts in lunar orbit aboard the Apollo 8 delivered an early Christmas present to the humans back on planet Earth; a ‘live’ television broadcast of a grainy, black-and-white Earth. The footage caused an immediate stir as humankind got its first moving pictures of their home. The next day, American poet Archibald MacLeish wrote in the New York Times, “To see the Earth as it truly is, small and blue and beautiful in that eternal silence where it floats is to see ourselves as riders on the Earth together, brothers on that bright loveliness in the eternal cold.” When a colour photo taken on Christmas Eve by astronaut Bill Anders was published a week later in Life Magazine the world was changed. The photograph, called Earthrise, is the first high-resolution, colour picture taken by a human in space. It revealed the planet to be a fragile marble of blue and green in an infinite universe, changing the human perception of the world and their place in it. Specifically, Earthrise exposed the environmental and social fragility of the planet. Together with and can be seen as the impetus of a renewed environmental consciousness as well as a reaffirmation of the interconnectedness of all humankind.

In the many decades since the environmental
movement began, its lexicon has grown to include a wide variety of terms defining actions, approaches, and solutions to solving or mediating the effects of the crisis. One of the most prevalent resolutions is the concept of environmental stewardship. Environmental stewardship entails the protection, restoration, and sustainable use of the environment. Stewardship is founded on the notion that every generation inherits the Earth from the previous, and must care for and maintain it in all its beauty and function for the next generation. It begins with a sense of respect for and responsibility over the planet, all its natural systems, habitats, and creatures. Effective environmental stewardship is supported by its tripartite actions; protection, restoration, and sustainability, each as essential to the rest as one leg of a tripod.

In both architecture and animation, the principle of environmental stewardship is evident, albeit in different forms. In architecture, it is the responsibility of the architect to respect the environment and make informed design decisions such as appropriate material choice, envelope design, and building systems. In animated film environmental stewardship is a narrative theme which can either drive the narrative, as in Wall·E, or permeate throughout the plot as in The Lion King; the former a cautionary tale about the detrimental effects of human expansion and unchecked pollution, the latter a coming of age story about a lion prince...
who cannot wait to be king, overlaid with a message of sustainability and the circle of life. Exploring how issues of the environment implicate the fictional worlds within animated films, as well as how the characters and narratives respond to such issues, can open new paths of critical investigation for architects.

**SOCIAL SUSTAINABILITY**

When *Earthrise* was published on New Year’s Day 1969, it carried with it a notion of interconnectedness and unity, reinforcing the already growing social movement on Earth. Throughout the 1960s both America and the UK were reckoning with the growing Civil Rights Movement, Women's Liberation Movement, and the Gay Liberation Movement. Rising populations on both sides of the Atlantic exacerbated racial and social divisions and put a strain on civic infrastructure leading to a transatlantic housing crisis. Meanwhile phenomena like Beatlemania bridged the cultural divide between Western nations creating a greater sense of internationalism and anti-Vietnam War protests galvanized a generation that had become disenfranchised with the bureaucracy that ran their world. Everywhere, people were calling attention to systematic and political wrongs and trying to find ways to build stronger communities. In many ways this can be seen as the beginning of the pursuit of
modern social sustainability.

In 1987, when a United Nations Commission defined sustainable development as, “Meeting the needs of the current generation without compromising the ability of future generations to meet their needs,” it also identified three categories of sustainability: environmental, economic, and social. It is important to note that this oft-cited definition was written in the context specifically of development, that is, the development of a country or corporation. As such, since economic growth and environmental impact have more quantifiable targets, they have enjoyed wider attention and understanding, while subordinating the social element, if not overlooking it entirely. Today, as millions continue to challenge racial, gender, and economic inequality, the role of social sustainability has been in greater focus in popular discourse.

Social sustainability can be defined in general terms as, “a life-enhancing condition within communities, and a process within communities that can achieve that condition.” A more critical definition may be: “Social sustainability occurs when the formal and informal processes, systems, structures and relationships actively support the capacity of current and future generations to create healthy and liveable communities. Socially sustainable communities are equitable, diverse, connected and democratic and provide a good quality of life.” The strength of this definition is that it
prescribes a series of principles which represent aspirational statements by which social sustainability may be achieved. While not a perfect system, owing to the complex nature of social organizations, this gives social sustainability a quantifiable rubric more in the vein of the economic and environmental. Furthermore, I have amended the principle of social sustainability in the context of this thesis to include the psychological notion of self-actualization/self-transcendence, a tangential concept relating to an individual and community fulfillment.

**SELF-ACTUALIZATION / SELF-TRANSCENSION**

In 1943, psychologist Abraham Maslow published a paper in Psychological Review entitled, "A Theory of Human Motivation." Therein, Maslow introduced his five-tier 'Hierarchy of Human Needs,' a theory in psychology which suggests that people are motivated by five basic categories of needs. Illustrating the hierarchy as a pyramid, Maslow contended that one could only hope to fulfill the needs of the next category when the previous had been reasonably satisfied. Initially, Maslow considered self-actualization — the need to discover and fulfill one's true potential — to be the pinnacle of human needs. However, as he continued his research in the field of psychology he regularly revisited his 'Hierarchy of Human Needs,' effectively revising it by 1969 to include a new apex need beyond
Self-transcendence relates to the need “to further a cause beyond the self and to experience a communion beyond the boundaries of the self.” Conceptually it is very closely related to the principle of social sustainability and is similarly a product of 1960s socio-political consciousness. Among the aforementioned political and social turmoil of the 1960s, there was a growing notion of the interconnectedness of people the world over.

In 1962, Marshall McLuhan coined the term ‘the Global Village’ in reference to the phenomenon of the world’s interconnectedness due to new media technologies like the television. In 1969 Woodstock brought together hundreds of thousands of people in a celebration of unity, peace, and art. In 1964, Walt Disney foreshadowed the emergent idea of the “global citizen” with his “It’s a Small World” pavilion for UNICEF at the New York World’s Fair, itself a celebration of international cooperation. It is within this context that Maslow revisited his “Hierarchy of Human Needs,” to reflect the rising emphasis being placed on interpersonal and international relations.

Self-transcendence, as described by Maslow, is “a person’s ability to obtain a unitive consciousness with other humans.” One who has achieved self-transcendence is “able to view the world and [their] purpose in the world in relation to other human beings on a more global scale and is aware that they can have an impact, not just within their
own geographical boundaries or culture, but on the whole world." This description reinforces my earlier statement regarding the close relation between self-transcendence and social sustainability, particularly through the principle of interconnectedness. Self-transcendence allows an individual to look beyond themselves and contribute to a sustainable community. As per Maslow’s ‘Hierarchy,’ however, self-transcendence can only be reached upon the achievement of self-actualization, and it at this level of the pyramid that architecture can contribute. Such contributions can only be observed with a fuller understanding of Maslow’s original Hierarchy, and specifically, self-actualization.

The most basic human needs form the base of the pyramid. These are physiological needs like air, water, food, shelter, sleep, and reproduction, the basic requirements of survival. Next are safety needs: personal security, employment, resources, health, property. Then comes love and belonging, the needs for friendship, intimacy, family, and connections with others. Once satisfied, one seeks to fulfill their need for esteem: respect, self-esteem, status, recognition, and strength. Atop the pyramid, the highest level of the hierarchy, is self-actualization, the desire to become the most that one can be. Of Dr. Maslow it has been said that while most psychologists study people who are unwell, he studies the perfectly healthy. For nearly two decades, Maslow studied people who had the “full use and
exploitation of talents, capacities, potentialities, etc.” in an effort to understand their apparent success. He defines self-actualization not as a terminable achievement, but as a continuous pursuit to “become more and more what one is, to become everything that one is capable of becoming.” In short, “What a [person] can be, [they] must be.” The lower four ‘needs’ are perhaps most easily understood, as most of us can relate to the pursuit of each. Self-actualization however, ostensibly the state to which all should aspire, is more elusive.

As designers of private and public space, architects are capable of directly addressing several of the human needs identified by Maslow, but more significantly they are capable of providing built space which can aid in one’s own pursuit of self-actualization and ultimately, self-transcendence. Architecture has the ability to serve the individual, just as it is capable of serving the public, and it can create an environment in which one can experience fully, be comfortable in their own sense of self, and allow them to pursue their goals. Many animated films tell the story of an individual in search of themselves, their identity, their place in society. The built, or drawn, environments of these films can contribute to a character’s sense of self, or contrastingly, to their discomfort. Consider the film Up, in which, in the first five minutes, we see the protagonist and his wife meet, marry, and physically build a home together.
They pour their personalities, their hopes, and their dreams into the very fabric of the house. As we watch them age, we see the house serve as a place of comfort, support, and reassurance, facilitating the couple’s achievement of self-actualization together. Later in the film the house serves as metaphorical burden which the protagonist must let go of in order to look beyond himself and reach self-transcendence. This illustrates the relevance of architectural space to one’s understanding of themselves and their place in the world. Looking to examples like these from animated films offer unexplored avenues to challenge the conventional thinking regarding issues of self-actualization and self-transcendence in architecture.

The purpose of this thesis is to open a dialogue between architecture and character-driven animated film as a viable source of inspiration regarding urgent design dilemmas relating to environmental stewardship and social sustainability. Though I have observed that this is an under-explored relationship, such a study is not entirely without precedent as it shares a close parallel to works of visionary and narrative architecture.
1.4 Narrative Themes and Architectural Dilemmas

Endnotes

1. The Civil Rights Movement:


Gay Liberation Movement:


Vietnam War:


Women's Liberation Movement


Environmental stewardship actions can be targeted for individual or multiple species, individual habitats, entire ecosystems, or integrated human-environment systems at a variety of scales ranging from neighbourhoods and municipalities to whole landscapes and ecological zones. Protection is the conservation and safeguarding of a species, habitat, or ecosystem. Efforts range from a bureaucratic protection of a natural wilderness from human intervention and habitat destruction through legislation, to a community movement to save a hundred-year-old tree from being bulldozed to put up a parking lot. Additionally, protective action can take the form of deliberate, passive inaction, by simply choosing not to disturb a natural system despite no active preventative restrictions. In short, the environmental stewardship principle of protection concerns that which has yet to be damaged or implicated by human interference. Conversely, the principle of restoration addresses those things which have been negatively impacted by human expansion. Restoration efforts seek to return a natural entity to a former state of balance, be it national or even global action to restore an endangered species or a local effort to repopulate an over-cultivated forest. The final principle of environmental stewardship ensures the efforts of the other two are not for nothing. Sustainability, another buzz-word of the environmental movement, is the principle defined broadly by a United Nations Commission in 1987 as, “Meeting the needs of the current generation without compromising the ability of future generations to meet their needs.” This definition speaks to the principle of self-control and constraint in the pursuit of self-interest, to the benefit of the collective. However, due to the complexity of sustainability, particularly in the environmental context, this principle requires further analysis.

The aforementioned definition by the United Nations Commission is for the greater concept of sustainable development, which includes social, economic, and environmental sustainability. Various attempts have been made to define environmental sustainability, including by the UN Commission. One effective definition comes from a paper published in the Journal of Environmental Sustainability. Building on that of the UN Commission, this paper defines environmental sustainability as “a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity.” This definition emphasizes the importance of recognizing the value of natural ecological services and their interconnectedness with human-kind. The paper separates these services into four categories: provisional services, regulating services, supporting services, and cultural services.

Provisional services include any product obtained from ecosystems, such as food, biochemicals, natural medicines and pharmaceuticals, fresh water, and all forms of energy sources. Regulating services are the benefits obtained from natural ecological processes. This includes air quality regulation, water purification, waste treatment, pest and disease regulation, climate and water regulation, pollination, etc. Supporting services include soil formation, photosynthesis, nutrient cycling and dispersal, and water cycling. Cultural services cover the intangible, non-material benefits obtained from ecosystems through spiritual enrichment, cognitive development, recreation, reflection, and aesthetic experiences. 

See Endnote #1

See Endnote #1


Based on his research, Maslow identifies eight ways one can pursue self-actualization.

1. Experience fully, vividly, selflessly, with full concentration and absorption, and without self-consciousness. Devote yourself fully to the moment and throw yourself totally into the experiencing of it.

2. Make the growth choice over the fear choice. If life is a process of choices between progression or regression, between defence, fear, and safety or risk and uncertainty, make the growth choice.

3. Let the self emerge and listen to the impulse voices. Try to shut out the external noise which aims to dictate what you should think, feel, like or dislike. Allow your experience to enable you to feel and say how you truly feel.

4. When in doubt, be honest rather than not. Do not be untrue to yourself. Take responsibility by looking inside yourself for answers.

5. Dare to be different. Be unafraid of unpopularity. Trust in your own senses to form your own opinions, even if they are not popular.

6. Work hard to do well the thing that you want to do. Use your skills and intelligence to become the best at the task you wish to.

7. Recognize peak experiences and set up the conditions to make them more likely. Peak experiences are moments of ecstasy which cannot be bought nor sought. Learn what you are good at and identify what your potentialities are and are not.

8. Find out who you are, what you are, what you like, what you don't like, what is good for you and what is bad, where you are going and what your mission is. Open yourself up to yourself. Identify defences and give them up.

According to Maslow, these pursuits are an intrinsic part of being human. He claims that each person has within them "a pressure toward unity of personality, toward spontaneous expressiveness, toward full individuality and identity, toward seeing the truth rather than being blind, toward being creative, toward being good, and a lot else. That is, the human being is so constructed that he presses toward what most people would call good values, toward serenity, kindness, courage, honesty, love, unselfishness, and goodness." This philosophy of self satisfies the need for a "framework of values, a philosophy of life, a religion or religion-surrogate to live by and understand by" which Maslow asserts is fundamental to all human beings. When those external institutions (religion, politics, etc.) have failed to fill that void, "we need a validated, usable system of human values that we can believe in and devote ourselves to." Self-actualization represents that system of values.

1.5 A TALE OF TWO CITIES

Two projects in particular serve as a bridge between the field of architecture and the ambitions of this thesis. Archigram’s mid-1960s *Plug-In City* is a speculative future city, derived from the megastructures and machine-for-living concepts of early modernism, yet unlike any proposal that came before it. Represented using characteristic ‘pop’ iconography, with *Plug-In City*, Archigram suggests what might be born of a marriage between architecture and science-fiction. Architect and film director Liam Young continues to navigate that relationship today with his own brand of visionary architecture, utilizing animation and film to represent his ideas. His most recent project, a 15 minute, immersive animated film and accompanying book entitled *Planet City* explores “the productive potential of extreme densification, in a speculative future where ten billion people surrender the rest of the planet to a global wilderness.”
Though these projects differ from my own analysis of animated film, they are nonetheless relevant to understand as precedents within the field of architecture.

Formed around 1960 in London, Archigram was an architectural collective of individuals founded on a shared belief that the original, radical spirit of modernism had by the mid-century, become “gutless;” specifically, it had “lost its technological nerve.” Much of their work was motivated by a desire to see modernism “try again at being technologically determined—really fabricating the ‘machine for living in’ promised by early modernism.” Operating within the context of the transatlantic appetite for social and cultural reform, Archigram published an eponymous magazine in 1961 full of pop-styled works of visionary architecture, demonstrating the “artful proximity in Archigram’s work between the buildable and caprice.”

For the next decade the “Archigram newsletter became the focal point of radical architecture locally and globally,” at
various times addressing issues related to the UK housing crisis, population growth and urban overcrowding, the rising trend towards individualism in both the UK and America, and human-caused environmental degradation. Beyond their contributions to theoretical discourse within the field of architecture, Archigram also successfully attracted the attention of the general public. Archigram's pop-infused approach to radical architectural thinking, characterized in their irregular magazine publications throughout the 1960s, reimagined architectural representation and sought influence from "outside the conventional closed architect/aesthete situation." This is best exemplified in their 1964 Zoom Issue (Amazing Archigram/Archigram 4) in which Plug-In City first appeared. [Fig's. 41-43]

Illustrative of the authors' professed obsession with 'Americana,' Zoom borrows imagery from 'Space Comics' popular in America at the time, emphasizing an overlap between science fiction, science fact, architecture, and

Fig. 44 Archigram's 'Plug-in City: Maximum Pressure Area,' Project Section, 1963-1966
technology. It is within this graphic framework that *Plug-In City* is first presented, introduced by a Superman-like character flying above the speculative city. *Plug-In City* is a “megastructure devoted to continual circulation, its functions scrambled, its boundaries blurred, it reprieved the promise of collective living from a creeping pessimism about ‘urbanism.’” The plug-in concept was based in part on the Japanese metabolists’ principle of designing long-term structures to support short term components and on the early modernist principles of “collectivity, of interchangeable apartment units, and... rapid transport links.” The images Archigram produced of *Plug-in City* are reminiscent of “property-boom-fueled London of the 1960s, as the service cores of office blocks rose above the city prior to the addition of floor slabs and curtain walls.” These highly detailed drawings, appearing in various iterations from 1964-1966, conveyed a “disarming reasonableness” despite their apparent unbuildability. By using contemporary issues such as urban densification, slum conditions, and social inequality as a springboard for their fantastical ideas and expressing them through legible architectural drawings, Archigram was able to address “an ‘expanding field’ of social, cultural, and technological facts.” Thus, “The gap between fantasy and fact narrows.” Archigram’s use of popular media to explore and represent architectural possibilities as well as their investigation of urgent architectural dilemmas through...
plausible impossibilities speaks to the viability of my own study, and therefore serves as an important precedent.

Liam Young has a similar interest in science fiction. Trained as an architect, Young has spent the last decade experimenting with space and world-building as a film director. His work "explores the blurred boundaries between filmmaking, storytelling and design," believing that "...the telling of stories is actually a critical act of architecture." Unlike constructing narratives around specific plots or characters as in the tradition of Disney and Pixar animated films, Young "starts by imagining environments and contexts in which those stories might start to emerge." In his own words, he uses film to "imagine and visualize alternative worlds as a means to understand our own world in new ways... A lot of times, the problems that we’re faced with

Fig. 45 Still from the short film, ‘Planet City’ (2020). Liam Young
are almost hiding in plain sight. They’re so familiar that we can’t get any critical distance through which to look back in on them.”¹⁸ For Young, film offers an opportunity to step back and gain that necessary distance and uncover new perspectives. *Planet City*, which is currently on exhibit at the National Gallery of Victoria’s Triennial, takes this approach, toeing the same line between plausibility and impossibility that characterizes the work of Archigram and the worlds of Disney and Pixar films.

*Planet City* is “a fiction shaped like a city.”¹⁹ It is Liam Young’s answer to “centuries of colonisation, globalisation and never-ending economic extraction and expansionism;”²⁰ a global reversal of human sprawl into one ultra-dense metropolis designed to house the entire population of the Earth in the space of an average US State leaving the remaining 99.98% of the planet to become wilderness once again.²¹ Working with a team of international environmental scientists and theorists, Young has designed a work of speculation which “provides a window into an alternative urban future that has been created as an antidote to the climate crisis.”²² Operating as a closed-loop and generating zero waste, *Planet City* boasts “221,367 square kilometres of buildings up to 165 storeys tall and 4,311,543,982 bicycles. Power would come from 49,445,671,570 solar panels while 2357 algae farms would filter pollution and provide supplementary food.”²³ Although a work of speculative
fiction and not an executable proposal, Young maintains that *Planet City* uses only technologies that already exist or are in development, stressing that “climate change is no longer a technological problem, but rather an ideological one, rooted in culture and politics.”

The short film in which *Planet City* is presented follows an unbroken global festival that moves through the metropolis, catching up with celebrations held by unique cultures throughout the year, each one bleeding into the next. Young’s project extends beyond environmental reaction. It is also a social proposal, uniting the world in a common purpose and celebrating the uniqueness of culture. It is a break from what he calls ‘neo-colonialist’ masterplans which only perpetuate the same inequality and exclusion that reinforces existing systems of power which created the current environmental crisis in the first place. With *Planet City*, Liam Young uses the technological freedom of animation, and the engaging power of narrative to study the spatial potentialities of environmental stewardship and social sustainability in the context of an imagined future condition. It is “Simultaneously an extraordinary image of tomorrow and an urgent examination of the environmental questions facing us today.” As such, *Planet City* is a compelling example of an architect exploiting the capability of animation (the concept) to explore relationships of space, place, and technology. My thesis however, considers character-
driven animated film as an autonomous narrative art form, not driven by architectural inquiry, yet viable as such nonetheless.

1.5 A Tale of Two Cities Endnotes
1 Young, Liam. "Planet City" Liam Young. https://liamyoung.org/project/planet-city
19 Young, Liam. "Planet City" Liam Young. https://liamyoung.org/project/planet-city
20 Young, Liam. "Planet City" Liam Young. https://liamyoung.org/project/planet-city
24 Young, Liam. "Planet City" Liam Young. https://liamyoung.org/project/planet-city
27 Young, Liam. "Planet City" Liam Young. https://liamyoung.org/project/planet-city
PART TWO

LET'S GO TO THE MOVIES!
2.1 EVERYTHING’S A REBOOT THESE DAYS

Beginning with the landmark *Snow White and the Seven Dwarfs* in 1937, Walt Disney Animation built their entertainment empire by adapting traditional fairytales like *Cinderella* (1950) and *The Little Mermaid* (1989). These films promote “a range of fundamental notions and ideals . . . [like] universal love, good conquering evil, and simple happy endings.” Rarely do these films address more deeply meaningful or mature themes in any substantial way. This began to change in the mid-1990s with the release of *The Lion King* (1994). This film represents a watershed moment in the history of Disney Animation feature films, marking a shift in the kinds of stories they tell and the narrative themes they employ. The first major break from tradition is that *The Lion King* is the first Disney Animated film to be based on an original story, allowing the animators and story artists
more narrative flexibility in order to convey the desired messages. More significantly, *The Lion King* is the first of Disney’s animated films to address death in a deeper way, touching on grief and survivor’s guilt. Another breakthrough is the presence of environmental stewardship at the core of the narrative. This shift away from traditional fairytales towards original stories with more socially conscious themes represents a maturation of the Disney brand and coincided with a greater social reawakening happening in the 1990s.

The dilemmas that inspired the visionary architecture of the 1960s — namely environmental stewardship, social sustainability, and self-actualization/self-transcendence — would not attain such widespread awareness and popularity again until the 1990s. In many ways, the last decade of the twentieth century mirrored the Swingin’ Sixties. The decade began with the celebration of “Earth Day 1990,” where, “two decades after the birth of the modern environmental movement, millions of people around the nation and the world renewed the call to arms for an endangered planet.” The coordinated global event became “the largest grass-roots demonstration in history.” That same year saw the introduction of two new environmental policies in the US; the Oil Pollution Act and the Clean Air Act. Social sustainability had also found new resonance in the 1990s in the lyrics of political hip hop. In place of 1960s icons like Bob Dylan and Jimi Hendrix, the 1990s had Tupac Shakur and N.W.A.
giving voice to continuing social inequalities of the day. This was also an era when global citizenry resurfaced again in response to “new technologies of communication [as well as] the global nature of threats posed to the survival of the human race and of the planet by nuclear and chemical weapons and environmental degradation, and [to] the trend towards a global economy.”

The reignited social consciousness of the 1990s established real-world issues around which Disney and Pixar would begin to craft their films. While I have identified *The Lion King* as a seminal film in the Disney canon, this does not mean that every Disney film released after 1994 contained a deeper social or environmental imperative. Rather, *The Lion King* was a first step into a realm that Disney would not fully inhabit for more than a decade. Pixar Studios, however, deliberately built their brand on the idea that “animated feature could eschew fairy-tale plots and instead focus on adult like characters with adult like problems.” After the landmark success of *Toy Story* validated their convictions, Pixar Studios has continued to explore the common humanity in their characters, delving deeper into the human mind, heart, and soul, and challenging its viewers to carefully consider the world around them.

Pixar’s partnership with Disney since the mid-1990s proved to be a boon for both studios; Pixar’s association with Disney helped establish themselves as an equally
trust-worthy brand of family entertainment, and Disney benefitted from the commercial success of Pixar's films through the early 2000s when the Disney Studio seemed to be going through a commercial drought. The young computer animation studio had a spotless record of six hit films including a sequel to *Toy Story* (1999), as well as the now classic *Monsters, Inc.* (2001) and *Finding Nemo* (2003). Conscious of the import the Pixar brand now had on the Disney organization, in 2006 Walt Disney Studios finalized the acquisition of Pixar Studios. Both studios continued to operate independent of each other, with Pixar co-founder Ed Catmull becoming President of both. John Lasseter became Chief Creative Officer. Under the creative direction of Lasseter, Disney's films began to edge towards the Pixar approach of telling non-traditional stories addressing modern, non-traditional ideals. Today, Disney and Pixar continue to respond to the fraught social climate of America and the world at large. In recent years the public push for racial and gender representation has led to films such as Pixar's *Coco* (2018) and *Soul* (2020), and Disney's *Moana* (2016) and *Raya and the Last Dragon* (2021).
2.2 NOW PLAYING: THE LION KING, WALL·E, UP, AND ZOOTOPIA

In the following section I analyze four animated films from Walt Disney Animation Studios and Pixar Animation Studios: *The Lion King, Wall-E, Up,* and *Zootopia.* Since 1937, Walt Disney Animation Studios has produced fifty-nine feature films. Pixar Animation Studios has added another twenty-three. Presented with eighty-two films to choose from, I used the context surrounding *The Lion King,* discussed in the previous chapter, to limit the scope to films produced after 1994. Having seen all of these films before, I was familiar enough with their general narratives and plot lines to assess which ones would provide the most fruitful analyses. I therefore compiled a shortlist of the films I believe address issues of either environmental stewardship or social sustainability. Upon rewatching those films I was
able to narrow the list down to these four films, which I then watched again with a more critical lens. They are used to consider environmental stewardship and social sustainability as links between the narrative themes of animated films, and urgent concerns relevant to the built environment. I was specifically interested in how these spaces impacted the narratives of the film or contributed to the underlying environmental or social messaging.

Once I had selected the final four films, I began to develop a concept for my own story which I see as a bridge between visionary architecture and character-driven animated film. The piers for such a bridge are already established: both endeavours use the concept of the plausible impossible to communicate serious ideas or intentions. The goal with my story is to use the character-driven narrative style of a Disney film, to address a real-world issue which can be impacted by architecture. The result is a series of vignettes, in the manner of a loose storyboard, each exploring the various lessons I was able to identify in the various films. *Gull Story* follows a young Bonaparte’s Gull named Ollie on his first migration south. [Fig. 48] On the journey from the northernmost parts of North America to the South-East coast of the United States hundreds of thousands of gulls spend a portion of their journey migrating along the Niagara River Corridor, between Lake Erie and Lake Ontario. [Fig. 49] Due to this annual migration, the Corridor
has been designated as a “Globally Significant Important Bird Area.” Unfortunately, the Corridor is at risk due to water contamination from industry and continuing development on the riverbanks. Through *Gull Story* I begin to explore how these issues of environmental stewardship and correlating issues of social sustainability might be presented in a way that informs while entertaining, as well as offer moments for architects to reflect on real-world design problems.

While I have made every attempt to remain objective in my analysis of these films, it would be irresponsible to claim neutrality. Therefore, the assumptions, interpretations, and conclusions I make in the following section should be understood simply as my unique experience with these films. Each viewer who seeks to critically analyze any of these films in a similar way will inevitably draw differing conclusions than my own, based on their own experience. Rather than making unequivocal generalizations, the goal of these analyses is to illustrate the potential these films hold to generate meaningful and critical discussion in the architectural field.
THE LION KING | DISNEY, 1994

In this thesis, for the sake of analytical efficiency, I have identified two separate architectural dilemmas to explore through animated film, however real world conditions are rarely so decisively categorized. Such is the case with Disney’s The Lion King. Set against the backdrop of the Serengeti, The Lion King can be understood as a study of the delicate balances that exist in our environments, both natural and social. These lessons are shown through plausible impossible contrasts; the first half of the film demonstrating how effective environmental stewardship and social sustainability both support the other to foster a productive community, and the second half of the film starkly expositioning the fragility of that system. Beneath the colourful musical numbers and Shakespearean drama, The Lion King offers a case study of the complex intersections of environmental stewardship and social sustainability.

Whenever one engages critically with a film such as The Lion King, in which the narrative is set within a specific cultural context and features characters which at best caricature and at worst stereotype people of certain cultures, it is important to recognize that there are many viewers for which the film is not an inspiration, but an affront and an offense. Of particular concern in The Lion King is the appropriation of African culture, both within the film and surrounding its production and marketing,
exemplified by Disney’s trademarking of the traditional Swahili phrase “Hakuna Matata.” Although the story is original, the film benefits from a strong influence of African culture — including traditional phrases and musical motifs — and a common Western falsity that Africa is a wild and unhistorical place. These are important discussions to have regarding how seemingly innocuous children’s films may intentionally or unconsciously reinforce negative stereotypes about different cultures. These critiques do not, however, preclude such films from other meaningful discussion. My analysis of the film which follows, is not intended to diminish or ignore those critiques, rather it is an attempt to highlight opportunities for architectural discourse present in the narrative of the film.

*The Lion King* follows the story of Simba, a young lion who must embrace his role as the rightful King and restore his homeland to its former glory. The film begins with Simba as a young cub, curious about the world and desperate to live up to his father, the benevolent King Mufasa. Under the tutelage of his father, Simba learns what it means to be King of the Pride Lands. His lessons come to a premature end however, when Simba’s villainous uncle Scar launches a murderous coup d’état with his hyena accomplices. The plot is only half successful however, leaving Mufasa dead and Simba exiled from the Pride Lands, believing himself to be responsible for his father’s death. Simba spends the
next several years living “problem-free” in a jungle oasis, neglecting his family, his home, and his kingdom. Meanwhile, Scar has assumed the throne, allowing the hyenas to overrun the Pride Lands. It is not long before the hyenas have over-hunted the plains, decimating the local ecosystem and driving the game herds away. After some convincing from an old friend, and a visit from Mufasa’s ghost, Simba resolves to return to the Pride Lands and challenge his uncle for the throne. During the ensuing battle Scar reveals that he murdered Mufasa, freeing Simba from the burden of guilt which had consumed him for years. The battle ends in triumph for Simba, as Scar gets his comeuppance from his former allies the hyenas, whom he had subsequently blamed for the decimation of the Pride Lands. A rejuvenating rainfall washes away the detritus of Scar’s failed occupation of Pride Rock, and the Pride Lands are returned to their former lush and vibrant state. The film ends as it began, with all the animals of the kingdom rejoicing in the presentation of the newborn heir to the throne.\[13\]

A prominent theme of The Lion King is the philosophy of “the circle of life,” an idealistic notion which constitutes the central belief system and governing style of King Mufasa. It is most explicitly defined by Mufasa during Simba’s first tour of the Pride Lands:

“Everything you see exists together in a delicate balance. As King you need to understand that balance and respect
all the creatures — from the crawling ant to the leaping antelope...When we die, our bodies become the grass, and the antelope eat the grass. And so, we are all connected in the great circle of life.”

The environmental lesson of *The Lion King* is clear: respect nature and be stewards of the Earth. However, by telling this story with anthropomorphic animals, Disney has imbued the film with a second, social lesson: respect your neighbour and foster a sustainable community. Had Disney chosen to make “The Human King,” this social implication would have been lost on an audience that considers themselves (humans) as separate or other from the animal kingdom. It is by replacing humans with anthropomorphic animal characters — a staple of Disney’s plausible impossible — that we are able to bypass that common hubris and understand the social implications as well as the environmental, and how interrelated those two issues truly are.

The ‘circle of life’ lesson espoused by Mufasa at the start of the film and its constituent implications on environmental stewardship and social sustainability are reinforced in the film through both positive and negative example. In the following section I examine the reigns of Mufasa and Scar to contrast how each ruler’s understanding and adherence to the circle of life philosophy impacts the kingdom of the Pride Lands, drawing attention to the
need for a more nuanced understanding of environmental stewardship and social sustainability.

The Pride Lands under Mufasa are a lush, active, tranquil socio-ecological system. This can be attributed to Mufasa’s deference to the circle of life. His protection of the circle of life amounts to a commitment to sustainability in the Pride Lands. Mufasa fiercely defends his kingdom from those who would exploit its vitality for immediate satisfaction to the detriment of later survival, namely the hyenas who have been banished to the Outlands for hunting in excess of their need. Save for those who eschew the circle of life, all animals are welcome in the Pride Lands where, so long as the circle of life is maintained, they are guaranteed a good quality of life. As a ruler, Mufasa has a respect for his people, seeing them as interconnected to each other and himself in the circle of life. While the title of King precludes the Pride Lands from exhibiting true equality, Mufasa acknowledges a sort of cosmic equality; an equality in death as all beings rejoin the circle of life. Mufasa is seen as a figure to be admired and respected, as a steward of the Pride Lands sure of his place in the circle of life. Under his leadership the Pride Lands flourish, proving to be both environmentally and social sustainable.

From the outset of his reign, Scar makes clear his indifference towards the circle of life, giving the hyenas free-rein over the Pride Lands in return for their loyalty. Driven
by vanity and jealousy rather than some sense of greater purpose, Scar becomes a reclusive tyrant, ruling from within the caves of Pride Rock and displaying nothing but contempt for those he believes are beneath him. Without the oversight of Mufasa, the hyenas begin hunting well beyond their needs, driving the quality of life in the Pride Lands down, eventually leading the remaining herds to migrate out of their reach. The once vibrant Pride Lands had been decimated by pride and greed; the grasslands withered, the river dried up, and the trees stripped bare. The circle of life had been broken. Scar's reign is characterized by indifference and neglect, resulting in a community that is neither environmentally nor socially sustainable.

Issues of social sustainability and environmental stewardship are more urgent now than perhaps ever before. As architects it is vital that we understand what each of these mean in the context of our communities as well as how they affect each other. The plausible impossible animal kingdom of The Lion King offers architects the opportunity to rethink/reasses our understanding of environmental stewardship and social sustainability on the whole, and to reconsider our relationship as humans to the animal world. This is the lesson I emphasize in Gull Story: that animal welfare is not disconnected from humanity but is in fact intrinsically bound up with human activity.

When trying to conceive a plot for my own
experiment in character-driven storytelling based on gulls in the Niagara River Corridor, I was interested in creating a situation in which humans consistently play an active role in the stewardship of the river environment, rather than an explicitly infrastructural or technological solution. The intention is to suggest an opportunity for people to realize that we should live in communion with the natural world rather than in domination of it. I began to consider what that community might look like, what events might take place, and how would the gulls respond? [Fig’s. 51-53] More a lesson of ideology or philosophy than a practicable one, it challenges architects to recontextualize our relationship to the natural environment which we are designing buildings within. Rather than consider conservation and protection of species on building sites as obstacles to overcome, we may embrace the opportunity to build a socially sustainable community with the environment.
Illustrative analysis of Disney's 'The Lion King'

**Fig. 54**

- **Mufasa**: King of the Pride Lands
- **Simba**: Son of Mufasa, future king
- **Scar**: Mufasa's ambitious brother, Mufasa's unscrupulous henchmen

Mufasa teaches Simba of his ancestors and the interconnectedness of generations. Mufasa leaps into action to defend the circle of life.

The heart of the Pride lands, the watering hole where species of all kinds come to drink. The herds are merely tools to be manipulated for Scar's nefarious plans. He does not respect them or their place in the circle of life.

Pride rock, the seat of the king and a place of celebration. Animals travel from the edges of the Pride lands to pay homage to Simba.

Mufasa receives an update on the affairs of his subjects, keeping abreast of all their needs.

Scar lazes in the den on Pride rock, uninterested in the needs of the kingdom he committed fratricide to rule.

Simba returns to the Pride lands to see it has become a dry, barren landscape.

Scar uses the throne to intimidate and flaunt his superiority.

Scar allows his minions, the hyenas, to run rampant in the Pride lands, killing more than their fill and scaring the herds away.
2.2 Now Playing

**WALL•E | Pixar, 2008**

What might the future look like if we continue on our present course? After the Second World War, the future was anticipated with optimism and hope as technological progress and economic prosperity promised endless possibilities. Flying cars and smart appliances would make everyday life easier for all. The future was something to look forward to. Contemporary speculations, however, of what the future might hold for humankind are less optimistic and increasingly apocalyptic. The future is not what it used to be. In the following section, I examine the themes of environmental stewardship and self-actualization in Pixar Studio’s 2008 film WALL•E in order to show how architects might respond to these urgent crises.

The production design and narrative of WALL•E is an exercise in world-building. Within the first five minutes of the film, the audience is introduced to the protagonist, WALL•E, the world he inhabits and its history. The film takes place, in part, on Earth sometime in the future. The planet is surrounded in a dense layer of space junk, and the atmosphere is shrouded in a heavy, tinted smog. The cycle of human consumption and waste disposal has left the surface of the world literally buried under mountains of litter. Familiar metropolitan skylines are cluttered by looming towers of compressed trash. The face of this man-made disaster is Buy N Large (BNL), a global corporation which has monopolized
every industry in every corner of the world and has assumed governmental control over the planet. The culture and economy of consumption incited by BNL triggered a global emergency, forcing humans to evacuate the Earth for a five-year period during which "Operation Clean-Up" would restore the Earth to a hospitable state. Seven hundred years later, the human race continues to self-exile in space, blissfully ignorant of the cataclysmic failure of their ancestors on Earth.

Environmental stewardship is a tripartite concept, equally emphasizing the principles of protection, restoration, and sustainability. No single action can wholly address the current environmental crisis. In WALL•E, we see a society which irresponsibly neglected protection and especially sustainability, and by the time they realize the need for restoration, the devastation had gone too far. It is not likely that we will ever see towers of neatly compacted trash soaring high above even our tallest skyscrapers, however it would be remiss to suggest it is an impossibility. It is this remarkable plausibility which renders the opening moments of WALL•E so powerful. The poignant imagery is a stark reminder of the threat we pose to ourselves and to the delicate ecosystems of the planet.

Whereas WALL•E demonstrates the implications of a belated technological response to a failure of environmental stewardship, with Gull Story I sought to explore what a
more proactive technological response would look like.

Still driven by a desire to dissolve the perceived division between the human and animal world, I decided to have people intervene directly in the migration of the gulls. To compensate for the reduction of river-bank habitat, a river-cruise will ferry gulls along the river from Lake Erie to Ontario, captained by a human who dedicates months of the year in stewardship of the boat. Furthermore, it also serves to remediate the Niagara River. Powered by the sun, the boat filters water from the river, filling all the on-board pools and returning the surplus back into the river. The strength of WALL-E’s opening is in its subversion of expectations. The skyline images trigger in us a memory of the skylines we’ve seen, and we subconsciously begin to imagine what those skyscrapers might look like beyond the smog. When suddenly it is revealed that they are not skyscrapers at all, but towering piles of trash, our preconceived notions are shattered, engaging our curiosity to find out ‘what happened here.’ This was a technique I adapted for my own story.

The riverboat at first appears to be just that — an ordinary riverboat. The sudden revelation that it is in fact an exclusive gull cruise takes the viewer by surprise, opening them up to the possibilities the narrative offers. [Fig’s. 56-57] The idea of a river-cruise specially designed for gulls is the plausible impossibility at the heart of Gull Story, from which we can investigate the relationships between gulls and each other,
gulls and humans, gulls and the boat, and the boat and the surrounding environment. From there we can refocus the lens on real-world practice to reexamine how we think about environmental stewardship and social sustainability, not as two disparate challenges but as interconnected opportunities for better design.

Self-actualization is a difficult condition to define, as it looks different for each individual. It is an equally difficult condition to achieve, and so for many it remains an ongoing process. As members of the architectural profession which is so concerned with human behaviour and experience, it is important to understand the implications of an individual’s space on their pursuit of self-actualization. WALL•E — the film — uses the plausible impossible to fill WALL•E — the robot — with personality and give him a human spirit. This film about a robot is in fact an insightful examination of what it is to be human: to be lonely, to feel loved, to build community, hold accountability, and have independent agency.

At the start of the film, Earth remains completely uninhabited, save for WALL•E, the only remaining agent of “Operation Clean-Up.” WALL•E is the architect and builder of those monumental towers of refuse which dominate the cityscape. He was designed and programmed to clean up the detritus of human consumption, compress it into cubes and make piles. He has been dutifully carrying out
his directive for centuries, long after all his fellow robots fell into disrepair. After seven hundred years of sifting through the sad legacy of human existence, WALL•E has suffered a sort of glitch — he has developed a human personality. He is very curious, examining anything which he finds interesting and saving them in a plastic cooler for his collection. Back inside the truck he calls home, WALL•E has thousands of knick-knacks filling the shelves (WALL•E docking stations). He has a cup full of spoons and one full of forks, teddy bears and pylons, dozens of lighters and ring boxes. He has a pile of car batteries which he uses to power the strings of twinkle lights he has hung from the ceiling. And he has a VHS copy of Hello Dolly, from which he learned how to dance, how to sing, and how to hold hands. WALL•E has surrounded himself with the objects that inspire awe and wonder in him. Despite fulfilling his programming and dutifully collecting trash for seven hundred years, you get the sense that WALL•E feels like he is capable of so much more, he just does not know what. The space he creates for himself is one in which he can explore the possibilities and feel inspired to dream.

Architect’s often endeavour to produce a design which inspires one to make a small difference in one’s corner of the world. To believe in the possibility of tomorrow. To dream. These things may be accomplished through architecture, but need not be limited to the monumental.
WALL•E is a reminder that inspiration, self-actualization, begins at home. This is a concept I was able to adapt into the story of Ollie, aboard the Niagara River Gull Cruise. When Ollie first arrives on the boat, he is quite alone and unsure of where he is going. It isn’t until he meets Frank, a one-year older gull, that Ollie begins to feel a little bit at ease. Frank tours Ollie around the boat before taking him to his own cabin which he has already decorated with knick-knacks and assorted treasures he’s found on his flights into towns along the river. [Fig. 58] With this collection filling the cabin, it feels comfortable and homey. Ollie finds a cabin a few down from Frank, and when he goes to sleep that night he finds a pine-cone from Frank’s collection there on the floor. Ollie falls asleep that night happy to have a friend and excited to decorate his own space. [Fig. 59] By the end of the journey on the boat, his cabin is full of little treasures, each one with a memory attached. When he takes off for the south, Ollie knows that when he returns for the journey north his cabin will be there, full of his memories.
ILLUSTRATIVE ANALYSIS OF PIXAR’S ‘WALL-E’

WALL·E
PIXAR | 2008

Hub-cap Wall-E uses as a skimmer that dances along to ‘Hello Dolly’. He’s only companion plant Wall-E finds which brings Eve into his life & represents Earth’s renewed ability to sustain life.

Spare parts collected from Wall-E’s fallen kin rubik’s cube Eve ‘breaks’ by solving it.

Car battery collection to power Wall-E’s home twinkle lights Wall-E collected to bring the stars into his home.

Audio tapes Wall-E has recorded of his world Wall-E’s favourite film, Hello Dolly, from which he learned what it means to hold hands.

Eve, the Extraterrestrial Vegetation Evaluator Wall-E’s soulmate.

REAR ELEVATION
WEST ELEVATION
ALLOCATION
OAD
IFTER
ARTH - CLASS
WALL·E

“Too much garbage in your face? There’s plenty of space out in space. BNL Starliners leaving each day. We’ll clean up the mess while you’re away!”

WALL·E transport vehicle | BNL ‘operation clean-up’

WALL·E’s home
Earth, 2805
700 years since human departure

Fig. 60
Illustrative analysis of Pixar’s ‘WALL-E’
When does a house stop being a house and become a home? And when does a home become something more?

 Pixar Studio’s 2009 film, *Up*, is a colourful adventure story in which a lonely widower endeavours to fulfill a lifelong promise made to his departed wife: to build their house on the precipice of Paradise Falls in South America. With the unwelcome assistance of Russell, the young Wilderness Explorer, Carl Fredricksen successfully flies his house to Venezuela, tied to thousands of helium-filled balloons. It is a heartwarming story full of wonder, action, and tension.

Stripped of the fantastically impossible balloons and the talking dog, *Up* is a profound commentary on identity. In particular, the role architecture has in defining our own identities and in supporting our self-actualization.

The story of *Up* centers on three main protagonists, Carl Fredricksen, his wife Ellie, and their house. We are introduced to all three at virtually the same moment. A young Carl, aspiring adventurer donning a pilots helmet and goggles, runs down the street carrying a balloon on a string, imagining it is the dirigible of his hero, “The Spirit of Adventure.” As he runs past an abandoned house in a state of disrepair he hears the voice of a young girl shouting from within. Carl is shy, but the words “Spirit of Adventure” painted on what was left of the front door compelled him to go inside. This is how Carl met Ellie, who was wearing the
same goggles and helmet as he was. Carl's shyness was contrasted in equal measure by Ellie's exuberance. That night, when Ellie returned Carl's balloon to him (he had lost it in the rafters of her clubhouse), she initiated him into her club. She showed him her scrapbook full of newspaper articles and magazine spreads covering their hero's exploits in South America and unveiled to him her plan for the future. She was going to fly her clubhouse to Venezuela and live on the edge of Paradise Falls, and she made Carl promise to take them there.

In time, Carl and Ellie get married and move into that old abandoned house. Together they fix it up and paint it according to the drawing Ellie had in her scrapbook, green, yellow, and lots of magenta - Ellie's favourite colour. Inside the house is furnished with an eclectic mix of furniture, some conforming to Carl's more subdued and shy personality, and others expressing Ellie's outgoing nature. They fill walls with pictures of their times together and the shelves with knick-knacks, each holding some special memory to them. All of this happens in the span of a few minutes at the opening of the film, establishing the house as an extension Carl and Ellie's relationship; a physical manifestation of their individual and collective identities and a symbol of their shared hopes and dreams.

*Up* is a testament to the capability of animation to develop a story which exaggerates the real human
experience in order to develop compelling characters and elicit a strong emotional response to the story. We, the audience, can see the house becoming Carl and Ellie’s not because we see them sign the deed, but because we see them transfer their own identities into the character of the house in a physical way. Carl has been animated to have quite square features, from his head and torso to his ears and even his glasses. This geometry is a physical representation of his “square” personality — quiet, reserved, introverted. Conversely, Ellie, whose personality is much more extroverted and loud, has been drawn to have very round features; a perfectly round head and a small round nose supporting round-rimmed glasses. The animators are able to exaggerate these features based on the audience’s preconceived associations between these specific geometries and personality traits. These associations continue beyond the character design and begin to inform the spatial conditions of the house. All of the furniture in the house can clearly be identified as being Carl's or Ellie’s. Carl’s bedside lamp is a simple rectangular, cloth shade; Ellie’s is an ornate Tiffany-style shade of colourful glass. In the living room, we see the contrasting personalities living comfortably side-by-side, complimenting each other. Carl sits in a low, square armchair and has a stacked rectangular end table at his side. Ellie sits in a high-backed, flowery, curvilinear chair next to a slender, delicately carved, round-topped end table.
The effect that this exaggerated geometry has is to establish an emotional connection between the furniture and the characters, such that in the absence of the human character, their corresponding furniture can stand as a replacement. This becomes especially significant as the film progresses.

This animation of geometries serves an additional function beyond narrative development. The plausible impossible at work in Up, from the design of the characters to the set, serves to illustrate the important role our architectural spaces, particularly our domestic spaces, have in supporting individual and community self-actualization. As the film begins, we watch an entire lifetime flash by in the span of a couple minutes, the ups and downs and quiet moments that when assembled together make up a life. Carl and Ellie grow old together, fully satisfied just to have each other. Their house, redesigned and renovated with their own hands to reflect their personal identities, became a space in which they could reach true self-actualization together, fulfilling their greatest potential to be there for each other and build a happy life. As they aged and changed, the house did too, becoming imbued with new memory and meaning each year, and always reflecting the hearts of its inhabitants. Beyond the basic physical needs of shelter and security, Carl and Ellie’s house provided a haven from the world, a place in which they felt represented, recognized, and important. Carl and Ellie built their house to reflect their individual and
collective hopes, desires, and interests, and in turn the house fulfilled its role as a home; providing a safe and comforting space in which Carl and Ellie could have the adventure of a lifetime together.

Can a house be more than a home? What becomes of a house which is so wholly representative of two individuals, their dreams, hopes, desires, and memories, when one of those individuals is no longer there? The prologue of Up closes with the heartbreaking death of Ellie, leaving Carl alone in the world. Moving forward a couple of years, we see that Carl and Ellie's quiet neighbourhood has transformed into a metropolitan street. The house is now surrounded on all sides by soaring skyscrapers and Carl, stubbornly refusing to sell his house, watches on in bemused disappointment. “Some sight, huh Ellie?” he says while looking up at the house. When Ellie died, Carl's house, which had long ago become his home, became something more. It became a surrogate for his late wife, a repository of her memory in the walls, in the paint, and in the furniture. The house came to represent the very essence of his marriage. Such a transference is only possible due to the strong emotional connection established between Carl, Ellie, and their house; a connection which has been strengthened for the audience by the animation of simple geometries. The house also becomes as symbol of the burden of grief which hangs around Carl. Clinging desperately to the memory, Carl
sets out on a journey to fulfill his childhood promise to Ellie and fly their home to Paradise Falls.

Balloons, which brought young Carl and Ellie together all those years ago, would now help Carl fulfill their dream. He ties thousands of helium-filled balloons through the chimney to the house. He pulls down the curtains and stitches them to the bedsheets to make sails and rigs up a navigating system of Ellie’s invention, from back when the house was still just a clubhouse. With that, the house is torn off its foundations and thrown high into the sky and the film truly begins. After a series of misadventures, Carl (and his unwitting stowaway Russell) find themselves in South America. For much of the film, Carl must travel on foot, towing the floating house tied to his back behind him. The emotional transference of his marriage to Ellie into the house has become a very real, physical burden he must contend with in the wilds of South America. Throughout the film, Carl repeatedly risks everything in order to save his house — to save Ellie. Carl’s final moment of self-actualization comes with the realization that to let go of the house is to let go of the grief, but not to lose the memories. At the climax of the film, Carl lets go of the house, and we see it slide away, gently into the clouds. It is a bittersweet moment of heartbreak and triumph because the audience understands that the house is not just a house, that the home is not just a home. It is the manifest essence of two souls intertwined.
with lumber, nails, paint and upholstery. The film’s prologue so powerfully establishes these truths, significantly through plausible impossible geometries which reflect a very real human condition: that our homes are a reflection of ourselves, and they hold much more value than the sum of their parts.

*Up* is illustrative of the notion that architecture can be a significant support in the self-actualization process by reinforcing an individual’s sense of self. In *Up*, Carl and Ellie personally redesign their house and get their hands dirty doing the renovations. The result is a very personal house, customized to their very individual identities. The house also represents a new, shared identity which they crafted together. Within this space, both Carl and Ellie feel the kind of reassurance which enables them to aspire to greater things. While it is unreasonable to suggest that every person build their own house, it is very possible to design homes and other buildings that are individual-oriented.
Fig. 62
Illustrative analysis of Pixar's 'Up'
The quest for utopia is one which has occupied the imaginations of humankind since the Ancient Greeks. It is a fundamental part of the human experience, stemming from our unique ability for self-reflection; a consciousness and awareness of self that demands to be reconciled with. We imagine utopias to address human problems of inequality, injustice, and environmental negligence. The term “utopia” first appeared in Thomas More’s sociopolitical satire *Utopia*, in 1516. The term is derived from the Greek ou-topos, meaning “no-place,” and eu-topos, meaning “good-place.”

The utopia, therefore, is a good place that can exist in no place — a plausible impossibility. Utopia is intrinsically bound up with the concept of visionary architecture, most often taking the form of a city — *Broadacre City*, *Plug-In City*, *Planet City*, etc. It is also a common theme explored through animated film, albeit with less critical intention.

The 2016 animated feature *Zootopia* is perhaps the closest Disney Studios has come to producing something that may be considered a work of visionary architecture. The film features a new kind of utopia in which, in the absence of humans, mammalian predators and prey have evolved beyond their primitive instincts to cohabitate the world in harmony. *Zootopia*, which has been praised for its allegory to racial inequality and political power structures also provides a great, as yet unexplored, case study of the role of
architecture and urban planning in actively supporting the creation of a socially sustainable society.

*Zootopia* is a feature film not-so-subtly about race, prejudice, class division, and self-determination, set against the backdrop of the ‘utopian’ city. Drawing clear analogy to the real world, the film presents an alternate reality in which humans do not exist, and mammals have overcome their natural state, in which prey live in constant fear of predators, to live together harmoniously. This is the founding myth which establishes the basis of the city of Zootopia, a place “where anyone can be anything,” without the limitations of discrimination and prejudice. As with the majority of historical utopias, architecture and urban planning are central to the success of the ambitions of Zootopia. Following the story of Judy Hopps, the determined young bunny who becomes Zootopia's first police officer of her species, and Nick Wilde, the sly fox making a living as a con artist, as they uncover a conspiracy that threatens to overturn the peace, the narrative takes us through Zootopia, offering glimpses at the complex social and urban mechanisms in place to ensure the city functions as harmoniously as its myth claims.

As the home to a vast, multi-species population, Zootopia has two primary obstacles when it comes to urban design: varying climactic and habitat requirements, and a great variety of sizes, shapes, and abilities. The result is a series of districts designed to suit the varying needs of the
city's inhabitants, each representing a different climactic region — Tundratown, the Rainforest District, Sahara Square — and unique neighbourhoods like the miniature village of Little Rodentia where the mice and shrews of Zootopia live. Special consideration is given to ensuring every animal is afforded the same opportunities and experiences moving through the city and its buildings, no matter how big or how small. Infrastructure is designed to facilitate various users, sometimes playfully as in the lemming elevators which resemble hamster tubes, and sometimes more pragmatically as in the gently inclining path that surrounds a reception desk, allowing smaller animals to reach a comfortable height at the countertop. These carefully designed elements are essential to reinforcing the utopic ambitions of Zootopia; simultaneously facilitating and determining the parameters in which the society functions.

There are many instances of this thoughtful design throughout the film, however I've chosen to illustrate the police headquarters as a microcosm of all these things. It is fitting that the police station, ostensibly a symbol of democracy, equality and justice would be emblematic of Zootopia's designed utopia. Here, variously scaled stairs provide all animals a comfortable approach to the building. Three different sized doors welcome visitors, each with push bars at varied heights. However as the definition states, social sustainability is also dependent on processes within
the community. Throughout the film we experience the city through the unique perspectives of the optimistic Judy and the cynical Nick. By the film’s end, both characters learn that “life is more complicated than a slogan on a bumper sticker... [but] the more we try to understand each other”\textsuperscript{19} the better off we all are. Beyond infrastructure, social sustainability is dependant on individuals, recognizing the humanity in others and their role within the community. By eliminating the physical obstacles that separate various people’s experiences with a space from others, it becomes easier to put our efforts towards building socially sustainable communities.

For a city like Zootopia to be built is entirely impossible, yet the animators have developed its structure to a level of such detail as to make it remarkably plausible and something worth considering for its allegorical parallels to the real world. The circumstances of the film, a multi-species city of wildly differing inhabitants, exaggerates the same, very real human condition. Human society is made up of many different kinds of people, of different size, shape, culture, belief, and ability. Why then, should the designs of our cities not follow the example of Zootopia and be carefully designed for individuals rather than for the lowest common denominator. There are many instances in the film that offer hints and suggestions at a possible ‘other’ way to approach city design, where, for the sake of harmony among people, consideration is given to ensuring equal opportunity and
democratic space for all users. *Zootopia* places urban design and architecture at the fore of its storytelling, challenging us to reconsider the way public space is designed and the way it can implicate social sustainability.

For *Gull Story*, I designed the boat to be reflective of its specific users, providing variety and equality for all gulls aboard. A boat designed for gulls, and a solitary human occupant has some unique requirements. The captain’s quarters occupy the highest deck on the boat, where they remain for the entirety of the journey, as to not disrupt the gulls. This area fits the proportions of its human user, while the remainder of the boat is scaled to the gulls. A runway pool is provided, allowing gulls to make a water landing if they so choose. Sleeping accommodations vary from private and shared cabins to mature coniferous trees with ready-made wicker nesting beds. *Fig. 64* A large pool is automatically kept stocked with fish from the river, offering the gulls an all-you-can-eat buffet, and a mixture of honey-water is boiled beneath the smokestacks to create a steam that attracts swarms of the insects, to give the gulls a little dietary variety. *Fig's. 65-66* Multiple pools around the boat allow the gulls to swim in refined water. And rather than lounge chairs, wooden posts surround the pools, offering gulls a comfortable perch to rest on. On the whole, the Niagara River Gull Cruise has been designed specifically for gulls, emphasizing the goal of environmental stewardship and social sustainability beyond the human community.
Fig. 67
Illustrative analysis of Disney's 'Zootopia'
Part Two Endnotes

3. McFadden, Robert M. "Millions Join Battle for a Beloved Planet." Further proof of the environmental movement gaining traction came in Bill Clinton’s announcement of Al Gore as his running mate for the US Presidential election.
In 2014 Jim Morris replaced Ed Catmull as President of Pixar, and Andrew Millstein became President of Walt Disney Animation, though they would continue to report to Catmull until 2019.

In 2018, John Lasseter was let go from his role as Chief Creative Officer of Disney and Pixar Animation Studios following allegations of sexual misconduct in the workplace. He was replaced by Jennifer Lee (Writer/Director Frozen [2013] & Frozen II [2019]), and Pete Docter (Writer/Director Monsters Inc [2001], Up [2009], Soul [2020]) for Disney and Pixar respectively.

Ollie and his friend Frank are named after legendary Disney animators Ollie Johnston and Frank Thomas, two of Walt Disney’s ‘Nine Old Men,’ the name Walt gave to his team of principal animators.


♭ The Lion King (Walt Disney Animation Studios, 1994)

♭ The Lion King (Walt Disney Animation Studios, 1994)


♭ Zootopia (Walt Disney Animation Studios, 2016)
This film takes an idealist’s perspective of the police and the police station. In contemporary North America this view has become increasingly contested, especially in light of the Black Lives Matter protests of 2020, following the murders of several Black Americans at the hands of police. Today, there is a question of the efficacy of police forces and the power they wield in society. The following links shed more light on these evolving issues.


Zootopia (Walt Disney Animation Studios, 2016)
PART THREE

TO INFINITY & BEYOND
3.1 SOME CONCLUSIONS

Character driven animated film, exemplified by the work of Disney and Pixar Studios, offers a novel lens through which to consider the role of architecture in fostering environmental stewardship and social sustainability in our communities. The specific method of storytelling that centers on character emotion and experience creates opportunities to see the world through unique perspectives that are not so readily available through other, more common sources of architectural inspiration. Where visionary architecture proposes often impossible designs for real-world issues, these films create impossible worlds and scenarios grounded in just enough reality to render them impactful. This plausible impossibility is the door through which architects may enter into a meaningful analysis of how space is used to support major narrative themes like environmental stewardship and
social sustainability in order to translate that analysis into real-world practice.

Rather than concrete or tangible practical lessons, my analysis of these four films resulted a number of important questions and challenges related to the philosophy, ideology, and practice of architecture. I interpret *The Lion King* as a call to recontextualize our collective human relationship to the natural world, and to consider ourselves as part of a greater environmental community. The film's use of Pride Rock to exaggerate the consequences of a failure to be stewards highlights the complex interconnections between environmental stewardship and social sustainability in such a way that they cannot be separated from each other, but addressed cooperatively. *WALL•E* emphasizes the need for immediate action to mediate the effects of human degradation on the planet. That means putting into practice all three measures — protection, restoration, and sustainability — in our daily activities, but more significantly in our role as architects. We have the agency to refuse work on a site that will displace an entire ecosystem or threaten any number of species. We have the capacity to conceive of better, more sustainable systems in the buildings we design, and to specify the use of materials with a lower environmental impact. And we have the opportunity to intervene on the sites of our projects with systems and technologies that can serve to remediate and
restore the natural context rather than cause further harm. Furthermore, we have the responsibility to do all we can with the tools we are given. As Liam Young says, mitigating the effects of the climate crisis is no longer a technological problem, but an ideological one.

*WALL•E*, and significantly, *UP*, put forth the challenge to rethink the role architecture has in shaping an individual and what user-based design really means. The buildings we design are more than just shelters, they are the places in which people spend the majority of their lives, whether it’s a home, an office, a store, or a gym. In these two films the idea is exaggerated, with Carl and Ellie physically building their space to suit their personalities, and *WALL•E* collecting enough human knick-knacks to earn himself an episode on Hoarders. However, as I have suggested, this exaggeration draws attention to a real issue in contemporary design, namely homogeneity. I have argued that *WALL•E*, Carl, and Ellie are encouraged to pursue their own self-actualization in part because they have been able to create for themselves a space in which they feel recognized, empowered, and fulfilled. Why then, can we not endeavour to provide the same kind of spaces for our clients? There is not a blanket solution to be applied here, yet the challenge is for us to be ever pursuant of that ideal.

In *Zootopia* I see a striking call for more truly socially sustainable space which actively supports or even drives the
social ideals of a society rather than passively or retroactively applying band-aid solutions. *Zootopia* illustrates the notion that accessibility is about more than an elevator or a ramp tacked on at the end of a design. The accessibility of the city of Zootopia is foundational to its very existence: animals of varying shapes, sizes, and abilities need to get around with equal ease. How is this exaggerated condition any different than our human cities? Architecture should be democratic, equal, indiscriminate, and unprejudiced towards each and every user. As designers of public space, architects have a duty to provide every user the opportunity to have an equal experience as every other.

Although there is overlap between the narrative structure of these films and those which are employed by visionary architects like Archigram and Liam Young, these insights were only attainable through an analysis specifically of character-driven animated film. The unique way that these stories are built around character — without the explicit agenda typically attached to visionary or narrative architecture — inherently precludes the animators and storywriters from adhering to any kind of pre-established formula for design. Instead, spaces in these films are designed in response to the needs of the plot and the emotions of the characters, as well as in servitude of establishing an overarching theme. This freedom by design from any common architectural experiment is what makes
animated film so exciting to explore; within them are embedded works of architecture often developed without architects, and always without the same constraints and criteria that weigh down real-world practice. Animated film’s autonomy from architecture however, also complicates any serious attempt to suggest animation as inspiration, especially in terms of environmental stewardship and social sustainability.

As I discovered during the course of my research, the complicated history of Walt Disney and his company as well as certain individuals within the Pixar organization becomes an impediment when entering into a discussion of environmental stewardship and social sustainability. The countless critiques lobbied against Disney and Pixar films from *Snow White* to *Raya and the Last Dragon* can destabilize such an endeavour. All four films I analyzed have been the subject of critical reviews and insightful critiques. *The Lion King* has been reexamined as profiting on and exhibiting cultural appropriation.¹ *WALL•E*‘s cautionary commentary on mass-consumerism has been pointed out to be extremely hypocritical coming from an organization like The Walt Disney Company which arguably invented modern consumerism.² *Up* is guilty of employing imperialist and colonialist narratives with its characterization and portrayal of South America.³ And *Zootopia* has been critiqued for displaying the same implicit racial biases its plot seeks
to condemn. All such critiques provoke important and meaningful discussion surrounding the making of these films, the messages they broadcast, and their impacts on viewers, especially the primarily young audience.

Despite being a professed fan of Disney and Pixar films going into this thesis, I was not blind to their imperfections and common instances of harmful representation. However, as I took a more focused look at these four films in particular, I was forced to reconcile more deeply my affinity for the Disney and Pixar films. This ongoing reconciliation produced some challenges in the writing of this thesis as I sought to highlight fruitful narratives within specific stories without ignoring the complicated legacy of the Disney brand. The intentions of my thesis placed me decidedly outside the realm of critique, as I believe there are others better equipped than I to grapple with such issues. This does not, however, place me in opposition of those critiques either. Just as we can reevaluate historical figures and recontextualize their faults alongside their virtues, I believe these films, as works of mass-art, can be critiqued for their failures and harms without dismissing their merits. With my analysis of these four films, I sought to avoid areas where there was overwhelming criticism. This was not always possible, as in The Lion King, thus I was compelled to address those issues within my analysis. If I have elsewhere highlighted a moment or an image which
offsends or is harmful to any persons, it was not done so out of deliberate indifference, but more likely ignorance or oversight. That being said, I hope I have not erred so.

Concurrent to my interpretation and analysis of *The Lion King, WALL•E, Up, and Zootopia*, I generated a series of vignettes exploring the philosophy of Disney/Pixar storytelling that I deciphered within the films, through the creation of my own original story. *Gull Story* is an experiment in applying my research and analysis to a real-world issue to better understand how character driven animation might be looked to for creative perspectives of architectural dilemmas.

As a native to the Niagara Region, the issue of the Niagara River’s degradation and its associated implications on gull migration was an issue I was interested in addressing. Thus Ollie was born, named after one of Walt Disney’s ‘Nine Old Men,’ Ollie Johnston. As I analyzed each film, I sought to translate the perceived lessons through the story of Ollie as he makes journey south, finding the boat, making friends, and building a home. I eventually compiled these vignettes into a very loose storyboard, chronicling Ollie’s experience aboard the Niagara River Gull Cruise. As human beings, *Gull Story* poses the questions: How can we reconsider our relationship to the rest of the natural world? What role can we play in fostering an environmentally and socially sustainable community with nature? As architects it asks: How can we design spaces in which individuals feel
empowered? How can we give users agency within the built environment? How can we design inclusive spaces that offer unique but equitable experiences for unique users? Although I am certainly no Walt or Lasseter, I thoroughly enjoyed experimenting with *Gull Story* and calling to attention a local issue of environmental stewardship.

The intention of this thesis is to make a viable argument for character-driven animated film to be interpreted and analyzed as architectural inspiration and (loose) precedent. Given the novelty of this suggestion, I opted to emphasize a certain ‘pop’ element as to begin the conversation on common, familiar ground. Hence the discussion of the history popular social-conscioussness rather than that of the scientific field, as well as the example of Archigram as visionary architecture. Significantly this is also the primary reason for the focus on the films of Walt Disney Animation Studios and Pixar Animation Studios. As the two most ubiquitous animation studios in the history of the medium Disney and Pixar have become synonymous with family-friendly animated film. The familiarity and prevalence of Disney/Pixar films make them ideal for an introduction to the kind of analysis I have undertook in this thesis. However, these are just two of the hundreds of animation studios creating character driven films world wide, each with a unique brand of storytelling worth investigating. There is the American studios Dreamworks Animation (*Shrek*, 2001) and

![Fig. 68 'Shrek,' 2001](image-url)
Sony Animation (*Spider-Man: Into the Spiderverse*, 2018). In Japan there is Studio Ghibli (*Howl’s Moving Castle*, 2004) and Ireland has Cartoon Saloon (*Wolfwalkers*, 2020). My hope is that my first foray into the films of Disney and Pixar will inspire others to consider the films of these and other studios as more than mere children’s stories, and to find in them opportunities for architectural insights as I have begun to with this thesis.
Endnotes

1 See Part Two, Endnote 11.


APPENDIX B

GULL STORY
APPENDIX B

ADDITIONAL INFORMATION ON DISNEY & PIXAR FILMS
DISNEY AND PIXAR FEATURE FILM CATALOGUE.

1937 - 2019: 58 Films from Walt Disney Animation Studios
1995 - 2020: 22 Feature Films from Pixar Animation Studios
Each concept (Environmental Stewardship, Social Sustainability, and Self-Actualization) has been identified as being a Primary, Secondary, Tertiary, or inconsequential theme in the narrative.
**SNOW WHITE AND THE SEVEN DWARFS**
1937
RT SCORE: 98

**PINOCCHIO**
1940
RT SCORE: 100
NOW A PART OF THE CELEBRATED WALT DISNEY SIGNATURE COLLECTION, THE TIMELESS STORY OF PINOCCHIO INSPIRES A NEW GENERATION WITH ITS MASTERSFUL ANIMATION, AWARD-WINNING MUSIC AND UNFORGETTABLE CHARACTERS! WITH HIS FAITHFUL FRIEND JIMMY CRICKET BY HIS SIDE, PINOCCHIO EMBARKS ON FANTASTIC ADVENTURES THAT TEST HIS BRAVERY, LOYALTY AND HONESTY UNTIL HE TRIUMPHS IN HIS QUEST FOR HIS HEART'S DESIRE: TO BECOME A REAL BOY.

**FANTASIA**
1940
RT SCORE: 95
WALT DISNEY'S TIMELESS MASTERPIECE IS AN EXTRAORDINARY GANZA OF SIGHT AND SOUND! SEE THE MUSIC COME TO LIFE, HEAR THE PICTURES BURST INTO SONG AND EXPERIENCE THE EXCITEMENT THAT IS FANTASIA OVER AND OVER AGAIN. NO FAMILY DISNEY COLLECTION IS COMPLETE WITHOUT FANTASIA!

**DUMBO**
1941
RT SCORE: 98
EXPERIENCE THE DARING ADVENTURES OF THE WORLD'S ONLY FLYING ELEPHANT, THE INSPIRATIONAL TALE OF DUMBO, THE COURAGEOUS BABY ELEPHANT WHO USES HIS AURAL EARS TO FEARFUL WITH THE HELP OF HIS CLEVER BEST FRIEND TIMOTHY Q. MOUSE, WILLY WHIRL AND DELIGHT ADVENTURES OF ALL AGES. NOW, THE AWARD-WINNING MUSIC AND EMPOWERING MESSAGES ABOUT FRIENDSHIP AND BELIEF IN YOURSELF REACH NEW HEIGHTS IN THIS MUST-HAVE PRESENTATION OF WALT DISNEY'S CLASSIC ANIMATED DUMBO!

**BAMBI**
1942
RT SCORE: 90
WITH ITS JIVE-INSPIRING ANIMATION, THIS TIMELESS CLASSIC HAS BEEN LOVED BY GENERATIONS. IN A LIFE-CHANGING ADVENTURE, BAMBI SETS OFF WITH HIS FRIENDS TIMBER AND FLOWER TO EXPLORE THE WONDERS AND CHALLENGES OF THE WOODS, AND FULFILL HIS DESTINY AS PRINCE OF THE FOREST. FULL OF BRILLIANCE AND HEART. BAMBI REMAINS A FAMILY FAVORITE.

**SALUDOS AMIGOS**
1943
RT SCORE: 95
A WHIMSICAL BLEND OF LIVE-ACTION AND ANIMATION, SALUDOS AMIGOS IS A MAGNIFICENT MELANGE OF ART, ADVENTURE, AND MUSIC SET TO A TAP-TAPPING SAMBAS THAT WILL SOAR IN YOUR INTERNATIONAL TRAVELING COMBINATIONS ARE NONE OTHER THAN FAMOUS FUNNY FRIENDS: DONALD DUCK AND GOLDFINGER! THEY KEEP THINGS UPON WHEN DONALD ENCOUNTERS A STUBORN LLAMA AND "EL GAUCHO" COOKS UP A TREMENDOUS TRIP ON THE CONGO RIVER. A JOURNEY OF LIFE SOUTH AMERICAN-STYLE FROM HIGH AND ESPEWS TO ARGENTINA THE SIGHTS AND SOUNDS OF RIO DE JANEIRO. SALUDOS AMIGOS IS A HILARIOUS VISUAL FEAST THAT WILL ENTERTAIN AND DELIGHT THE WHOLE FAMILY.

**THE THREE CABALLEROS**
1945
RT SCORE: 98
THE EVER POPULAR AND EXCITABLE DONALD DUCK STARS IN ONE OF HIS GREATEST ADVENTURES - A DAZZLING BLEND OF LIVE-ACTION AND CLASSIC DISNEY ANIMATION BURSTING WITH SONG AND DANCE! WHEN DONALD RECEIVES A MAGICAL COLLECTION OF GIFTS FROM HIS FRIENDS, THEY BECOME HIS PASSPORT TO A FANTASTIC MUSICAL JOURNEY WITH JOE CARIOCA AND PANGALO. WITH THESE EXPERTS TO GUIDE HIM, DONALD DUCKS, DIPS AND JUMPS HIS WAY THROUGH AN ADVENTURE WITH EACH STOP FULL OF SURPRISES AND SENSATIONAL SONGS! DISNEY'S SEVENTH FULL-LENGTH ANIMATED FELT, THE THREE CABALLEROS IS A STUNNING CELEBRATION OF CIVILIZATION, DANCE, MUSIC AND DISNEY'S USEFUL FUN FOR THE WHOLE FAMILY!

**MAKE ME MUSIC**
1946
RT SCORE: 76
A SERIES OF MUSICAL VIGNETTES ARE PRESENT IN THIS ANIMATED PRODUCTION THE TEN SHORTS IN SEQUENCE ART AS FOLLOWS: "THE MARTINS AND THE MOES" "BLUE SAVIOUR" "IN WITH YOU" "CASEY AT THE BAT" "TWO SILHOUETTES" "PETER AND THE WOLF" "AFTER YOU'VE GONE" "JOHNNY FEDORA AND ALICE BLUEBONNET" AND "THE WHALE WHO WANTED TO SING AT THE MET!"

**FUN AND FANCY FREE**
1947
RT SCORE: 67
FUN AND FANCY FREE IS A DELIGHTFUL GEM THAT NOT ONLY BRINGS THE CHARM BUT IS UNBELIEvably RICH IN HISTORY MAKING AND MUSIC. IT WAS THE LAST ANIMATED FEATURE STARING WALT DISNEY AS THE VOICE OF MICKEY MOUSE, AND THE ONLY FILM FEATURING ALL FOUR OF WALT DISNEY'S MOST FAMOUS CHARACTERS - MICKEY MOUSE, DONALD DUCK, GOOFY, AND MINNIE MOUSE. FOLLOWING DISNEY'S CLASSIC TRADITION OF GREAT STORYTELLING, UNFORGETTABLE CHARACTERS, MUSIC, AND ADVENTURE, FUN AND FANCY FREE IS THE JOYFUL TELLING OF "RONCOS" AND "MICKEY & THE BEAULASTIKER" TWO TIMELESS TALES MAGICALLY BROUGHT TO LIFE BY THE BELIEVED JIMMY CRICKET AND THE MASTERSFUL COMBINATION OF ANIMATION AND LIVE ACTION.

**MELODY TIME**
1948
RT SCORE: 80
"ONCE UPON A WINTERTIME!" A PICTURE TOLD WITH MUSIC AND A SON BY FRANCES LANGFORD ABOUT A STORY. A BEAUTIFUL SONG AND DANCE CUTTING IN THE 1800'S RABBITS BECOME THE CRYSTAL BALL ON THE ICE BUT THEIR PLAY ALMOST ENDS IN TRAGEDY "TUMBLE DOGIE" FREDDY MARTIN AND HIS ORCHESTRA WITH JACK FINA AT THE PIANO. FANTASY OF A BEES NIGHTMARE "JOHNNY APPLESEED" DENNIS DAY VOICES THE CHARACTERS OF THE OLD SETTLER, JOHNNY APPLESEED AND JOURNEY ANGEL AS JOHNNY JOINS THE PIONEER TREE WEST, PLANTING APPLE ORCHARDS. LITTLE TOOT, A LITTLE TUGBOAT GETS HIS MESSIN AND IS BANISHED, BUT WINS A REPRIEVE BY SAYING A LARGE OCEAN LINER IN A STORM "TREES" CARTOON INTERPRETATION BASED ON THE POET "TREES" A CHORAL GROUP SINGS A SONG IN THE "ON THE SAMBA" STREET SCENE IN BRAZIL WITH THE DINING SISTERS SINGIN. JOSE CARIOCA AND THE ARCAYAN BIRD TEACH DONALD DUCK THE SAMBA. LIVE ACTION PERFORMED BY THOMAS SMITH AT THE ORGAN. "PECHO BIL" "BLUE SHADOWS ON THE TREES" SING BY BOY GROGS AND THE SONGS OF THE PIONEERS. MINNIE MEETS BOGY ROGERS NARRATING THE STORY OF PECHO BIL, BROUGHT UP BY WOODS AND BECOMING A FAMOUS AMERICAN COWBOY."
THE ADVENTURES OF Ichabod and Mr. Toad 1949 RT SCORE: 94
TWO UNFORGETTABLE CHILDREN’S STORIES: "THE WIND IN THE WILLOWS" AND "THE LEGEND OF SLEEPY HOLLOW" COME TOGETHER IN ONE FABULOUS ADVENTURE, AND IN ITS ORIGINAL THEATRICAL FORMAT FIRST, HANG ON FOR A WILD MOTORCAR RIDE WITH J. THADEUS TOAD AS HE DRIVES HIS FRIENDS MOLLY, RAT AND ANGUS MACBADGER INTO A WOODED WRECKY, THEN MEET THE SPINDEL-Ichabod Crane, who dreams of sweeping beautiful Katrina van Tassels off her feet despite opposition from town bully Brom Bones, who also has his eye on Katrina. THE COMIC PANNED INTRODUCES Ichabod to the Legend of the Headless Horseman, resulting in a Heart-Twisting Climax Wonderfully Narrated by Basil Rathbone and Bing Crosby. THE ADVENTURES OF Ichabod and MR. TOAD BRINGS WITH HIGH-SPIED ADVENTURE, BRIALLIANT ANIMATION AND CASTING MUSIC.

CINDERELLA 1950 RT SCORE: 97
NOW PART OF THE WALT DISNEY SIGNATURE COLLECTION AND THE PRESTIGIOUS NATIONAL FILM REGISTRY DISNEY’S ANIMATED CLASSIC CINDERELLA BELIEVED BY GENERATIONS OF FANS FOR ITS TIMELESS STORY, UNFORGETTABLE CHARACTERS AND ICONIC ARIA “SHARE THE MAGIC AS KIND AND HARDWORKING CINDERELLA IS REMOVED WITH AN ENCHANTED EVENING AT THE ROYAL BALL. IT JUST TAKES THE HELP OF HER LOYAL ANIMAL FRIEND, JASSY AND GUS, A WAG OF HER FAIR GODMOTHER’S WAND, AND SOME "BIBBIDI-BOBBIDI-BOO" TO CELEBRATE THE LEGACY OF DISNEY’S CLASSIC ANIMATION CROWN JEWEL CINDERELLA, WHERE DREAMS DO COME TRUE!

ALICE IN WONDERLAND 1951 RT SCORE: 81

PETER PAN 1953 RT SCORE: 81
BUST YOUR CARES GOODWILL AS WENDY AND HER BROTHERS EMBARK ON FANTASTIC ADVENTURES WITH THE HERO OF THEIR BEDTIME STORIES. PETER PAN WITH FAITH, TRUST AND NEVER-LOSE BELIEVING IN YOURSELF, PETER TEACHES THEM HOW TO FLY AND LEADS THEM TO THE "SECOND STAR TO THE RIGHT" AND BEYOND TO NEVERLAND.

LADY AND THE TRAMP 1955 RT SCORE: 93
FALL IN LOVE WITH WALT DISNEY’S BELIEVED CLASSIC LADY AND THE TRAMP EXPERIENCE THE THRILLING ADVENTURES OF LADY, A LOVINGLY UPBRED GOOD SPANIEL, AND TRAMP, A FREELWHEELING MUTT WITH A HEART OF GOLD. THIS HEARTWARMING TALE NOW CHARMS A NEW GENERATION OF FAMILY AND FANS WITH ITS EXQUISITE ANIMATION, UNFORGETTABLE SONGS AND ONE OF THE GREATEST LOVE STORIES OF ALL TIME. THIS IS THE NIGHT TO SHOW SPECIAL BELLA MURPHEY WITH YOUR FAMILY AND INTRODUCE THEM TO THIS TIMELESS CLASSIC.

SLEEPING BEAUTY 1959 RT SCORE: 89

101 DALMATIONS 1961 RT SCORE: 98
THERE ARE PUPPIES, PUPPIES AND MORE PUPPIES IN DISNEY’S BELIEVED ANIMATED MASTERPIECE 101 DALMATIONS—NOW JOINING THE CELEBRATED WALT DISNEY SIGNATURE COLLECTION. THIS ORIGINAL WALT DISNEY CLASSIC HAS CHARMED GENERATIONS OF FANS WITH ITS IRRESISTIBLE TALE—WARRINGTON, A MEMORABLE STORY AND PERFECT BLEND OF HUMOR AND ACTION-INDUCED ADVENTURE. CRUELLA DE VIL, THE MOST FABULOUSLY OUTRAGEOUS VILLAIN OF ALL TIME, SETS THE PUPPEN IN ACTION INVENTORY WHEN SHE DECOMPS ALL OF THE ADORABLE DALMATIONS IN LONDON—INCLUDING DIS FROM PONGO AND VIC AND CUTE FAMILY. THROUGH THE POWER OF THE "TWILIGHT BARK", PONGO REACHES OUT TO BRAVE ANIMAL HEROS OF ALL SPECIES TO WORK TOGETHER TO LAUNCH A DRAUGHT QUEST TO RESCUE THE PUPPEN FROM CRUELLA’S GREENY CLOTHES. UNLEASH ALL THE EXCITEMENT AND SUSPENSE OF DISNEY’S 101 DALMATIONS, A MUCH-LOVED CLASSIC YOUR FAMILY WILL ENJOY AGAIN AND AGAIN.

THE SWORD IN THE STONE 1963 RT SCORE: 66
HUMOR, SPECTACLE AND MAGIC RULE WALT DISNEY’S LEGENDARY CLASSIC TALE THE SWORD IN THE STONE! EMBARK ON AN ADVENTURE FILLED QUEST FOR AN UNLIEKING HERO! ACCORDING TO LEGEND, ONLY SOMEONE WITH HONOR, DEEDY AND INNER STRENGTH CAN CLAIM THE THRONE OF ENGLAND—BY PULLING OUT THE ENCHANTED SWORD THAT LIES LOCKED IN A MYSTERIOUS CAUSE, MANY BRAVE KNIGHTS HAVE TRIED, SO IT SEEMS IMPOSSIBLE THAT A YOUNG APPRENTICE KNOWN AS WART COULD SUCCEED. BUT WITH THE HELP OF THE WIZARD MERLIN, HELP FROM SOME HILARIOUS FRIENDS AND TRUE STRENGTH IN THE HEART OF WART JUST MIGHT BECOME ENGLAND’S GREATEST KING.
THE JUNGLE BOOK
1967
The song-filled celebration of friendship, fun, and adventure that was the last film to receive Walt Disney's personal touch. Embark on a thrilling adventure filled with the wise panther, along the way he meets jazz C. W. Finlay. The enigmatic shape of a piano and the, lovable, happy-go-lucky, brave Baloo, who teaches Mowgli "The bare necessities" of life and the true meaning of friendship.

THE FOX AND THE HOUND
1981
When a bitty little fox named Tod meets Copper, an adorable hound puppy, the two grow up together and vow to be best buddies forever. But when Copper is expected to take on his natural role as a hunting dog, he and Tod face the ultimate test of their unlikely friendship.

THE BLACK CAULDRON
1985
Fantasy, magic, and fun are all brewing together in Disney's legendary adventure. The Black Cauldron. Whoever releases the mysterious Black Cauldron's power will be invincible! The feisty Eilonwy, the wily Madam Medusa, the lovable Gurgi, and the elusive beaker of fire. On a quest to stop the Black Cauldron's evil once and for all, will they have the courage to succeed?

THE GREAT MOUSE DETECTIVE
1986
The clues are in the chase is on, and the case of the century is about to break wide open in Disney's greatest little mystery. In history! Let the Great Mouse Detective take you on an adventuresome journey through the cobblestone streets of 18th-century London. With some suspicious "mouselings" on the loose, as they sniff out clues through their charming miniature world, the final chase leads to a plot that may be the most masterful of all.

OLIVER AND COMPANY
1988
Experience a magical adventure, filled with friendship, fun and "Paw-ity"! Cook music in Oliver and Company! Oliver, a feisty young cat, executives a group of street cats in this timeless, animated classic. Cleverly based on Charles Dickens' timeless story, Oliver Twist - featuring unforgettable songs performed by musical greats Billy Joel, Huey Lewis and the News - is the story of courage, hope, and family. Dogs Dodger, Tito and their pals - Oliver knows he's found a lifelong friend and a real home.

THE RESCUERS
1977
Join the sky but brave mice Bernard and his glamorous partner Miss Bianca -- two tiny heroes on a great big mission to save a young girl named Penny, who has sent an urgent call for help! Taking off on the wings of their trusted albatross friend Orville, Bernard and Bianca soar to the Murphy's House of Devils Bayou, there, they find themselves on the riverboat hideout of the heartily evil, Madame Medusa, who needs Penny to retrieve the world's largest diamond! The Rescuers is high-flying fun you'll want to share with your loved ones!
Appendix B

THE LITTLE MERMAID
1989
RT SCORE: 93
ABE, THE FUN-LOVING AND MISCHIEVOUS MERMAID, IS ENCHANTED WITH ALL THINGS HUMAN. DISREGARDING HER FATHER’S ORDER TO STAY AWAY FROM THE SURFACE AND IN A RAGING STORM, RESCUES THE PRINCE OF HER DREAMS, DETERMINED TO BE HUMAN. SHE STRIKES A BARGAIN WITH THE DEVIOUS SEA WITCH URSULA AND TRADES HER FINS AND BEAUTIFUL VOICE FOR LEGS, WITH HER BEST FRIEND, THEADORABLE AND GULLY FLounder, AND HER RELUCTANT CHAPERONE SEBASTIAN, THE HILARIOUS, REGGAE-SINGING CARIBBEAN CRAB, AT HER SIDE, ABE MUST WIN THE PRINCE’S LOVE AND SAVE HER FATHER’S KINGDOM—ALL IN A HEART-POUNDING RACE AGAINST TIME.

POCAHONTAS
1995
RT SCORE: 55

THE RESCUERS DOWN UNDER
1990
RT SCORE: 70
HOLD ON TIGHT FOR THRILLING, FAST-PACED ADVENTURE IN THE HEART OF AUSTRALIA IN DISNEY’S ANIMATED CLASSIC THE RESCUERS DOWN UNDER! DEEP WITHIN AUSTRALIA’S WAT AND UNPREDICTABLE OUTBACK, A YOUNG BOY NAMED CODY FORMS AN INCREDIBLE FRIENDSHIP WITH A GREAT GOLDEN EAGLE, BUT WHEN A BRUTISH POACHER SETS OUT TO CAPTURE THE EAGLE, CODY STEPS IN TO PROTECT HIM, KNOWING HE CAN’T DO IT ALONE. A CALL FOR HELP GOES OUT THAT’S ANSWERED BY THE WORLD’S BRAVEST MICE, ERIKAH AND DUNCAS, FLYING IN ON THE WINGS OF THEIR HILARIOUS ALBATROSS FRIEND WILBUR. THESE TOP MOUSE AGENTS ARE READY TO TACKLE THEIR BIGGEST, MOST DANGEROUS MISSION YET! SAY “GOODBYE” TO A CLASSIC DISNEY ADVENTURE FULL OF HEARTWARMING EMOTION AND INCREDIBLE ANIMATION AS THE DROWN-UNDER DELIGHT YOUR FAMILY WILL LOVE!

TOY STORY
1995
RT SCORE: 100
EVER WONDER WHAT TOYS DO WHEN PEOPLE AREN’T AROUND? TOY STORY ANSWERS THAT QUESTION WITH A FANTASTIC FUN-FILLED JOURNEY, VIEWED MOSTLY THROUGH THE EYES OF TWO TALKING TOYS—WOODY, THE LAMEY, LIKEABLE COMPTOY, AND BUZZ LIGHTYEAR, THE FEARLESS SPACE RANGER. LED BY WOODY, ANDY’S TOYS LIVE HAPPILY IN HIS ROOM UNTIL ANDY’S BIRTHDAY BRINGS BUZZ LIGHTYEAR ONTO THE SCENE. AFRAID OF LOSING HIS PLACE IN ANDY’S HEART, WOODY PLOTS AGAINST BUZZ. BUT WHEN CIRCUMSTANCES SEPARATE BUZZ AND WOODY FROM THEIR OWNER, THE CANNIBALLY-MISMATCHED DUO EVENTUALLY LEARN TO PUT ASIDE THEIR DIFFERENCES TOGETHER AND FIGHT TOGETHER ON A HILARIOUS ADVENTURE-FILLED MISSION WHERE THE ONLY WAY THEY CAN SURVIVE IS TO FORM AN UNEASY ALLIANCE.

BEAUTY AND THE BEAST
1991
RT SCORE: 94
JOIN BRAVE, INDEPENDENT BELLE ON THE ADVENTURE OF A LIFETIME AS SHE SETS OUT TO RESCUE HER FATHER — AND DISCOVERS THE ENCHANTED CASTLE OF A MYSTERIOUS BEAST. ENJOY THIS WIZARDLY CHARMS AND OVERFLOWING WITH UNFORGETTABLE CHARACTERS AND MUSIC YOU’RE NEVER FORGET.

THE HUNCHBACK OF NOTRE DAME
1996
RT SCORE: 71

ALADDIN
1992
RT SCORE: 95

HERCULES
1997
RT SCORE: 84
AN OUTRAGEOUS ODYSSEY OF FUN, FANTASY AND ADVENTURE UNFOLDS IN THE HILARIOUS ART OF HERCULES TAKEN FROM THE GODS AS A NEWBORN, ADOPTED ON EARTH, HERCULES BECOMES AN AWKWARD TEENAGE PILAR OF STRENGTH, TRYING TO FIT IN, HE DISCOVERS HIS BAD IS ZEUS AND HOME IS MOUNT OLYMPUS — IF HE CAN MOVE FROM “ZERO” TO TRUE HERO! HERCULES TAKES ON BABYBOOD PEECOSH, THE FLYING STALLION AND PHIL — A FESTY PERSONAL TRAINER — FOR THE MISSION, BUT IT’S NO EASY TASK AS HE MUST MATCH WITS WITH GREEK BEAUTY MECE AND A COMICAL HOTHEAD NAMED HADES, WITH THE HELP OF IAN AND RAN, HERCULES PLANS TO RULE THE UNIVERSE, WITH ONE HERCULES STANDING IN HIS WAY, WITH A BOLD ANIMATION STYLE, CROSSED VOCAL CAST AND SPECTACULAR MUSIC, HERCULES IS UNMATCHED IN STRENGTH — DELIVERING SOMETHING FOR EVERYONE.

THE LION KING
1994
RT SCORE: 93
EMBARK ON A DRAMATIC COMING-OF-AGE ADVENTURE AS SIMBA, A LION CUB WHO CANNOT WAIT TO BE KING, SEARCHES FOR HIS DESTINY IN THE GREAT CIRCLE OF LIFE. YOU WILL BE THRILLED BY THE BREATHTAKING ANIMATION, UNFORGETTABLE ANIMATION AND AWARD WINNING MUSIC (“I’LL MAKE A MAN OUT OF YOU,” “HAKUNA MATATA,” “CAN YOU FEEL THE LOVE TONIGHT?”), AND TIMELESS STORY.
Appendix B

Mulan 1998 RT Score: 86
Clever Mulan proves her worth outside of her tradition-bound society when disguised as a male soldier. Ying, her bravely takes her father’s place in China’s Imperial Army, helped by her outrageously funny guardian dragon Mushu and a lucky crop named Cri-Kee. Mulan strives to earn the respect of her fellow warriors and their courageous captain Shang. Mulan’s adventures lead to a climactic battle atop the imperial palace, where her family’s honor and the fate of the emperor and all of China rests in her hands.

A Bug’s Life 1998 RT Score: 92
Meet Flik, the independent-thinking ant. The only insect capable of throwing a ring in the food chain. After one of Flik’s inventions goes terribly wrong, he embarks on a mission to help save the colony from a gang of free-loading grasshoppers in order to get back in good graces with the queen. But when the group of “warrior bugs” that Flik recruits turns out to be a bumbling circus troupe, he must believe in himself and his inventions to save ant bland once and for all.

Toy Story 2 1999 RT Score: 100
Buzz, Woody, and their friends are back as Andy heads off to summer camp, leaving his toys to their own devices. Things shift into high gear when an obsessive toy collector names Al McWhiggin, owner of Al’s Toy Barn, kidnaps Woody. At Al’s apartment, Woody discovers that he is a highly valued collectible from a 1950s TV show called “Woody’s Roundup.” He meets the other prized toys from the show: Jesse the Cowhand, Bullseye the horse, and Stinky Pete the Prospector. Andy’s toys mount a daring rescue mission. Buzz lightyear meets his match, and Woody has to decide where he and his heart truly belong.

Tarzan 2000 RT Score: 89
Disney’s magnificent animated adaptation of Edgar Rice Burroughs’ story of the ape man begins deep within the jungle when baby Tarzan is adopted by a family of gorillas. Even though he is shunned as a “hairless wonder” by their leader, Tarzan is accepted by the gorillas and raised as one of their own. Together with his wise-cracking ape buddy Terr and neurotic elephant Bill Tangaroa, Tarzan learns how to “surf” and swing through the trees and survive in the animal kingdom. His “two worlds” collide with the arrival of humans, forcing Tarzan to choose between a “civilized” life with the beautiful Jane and the life he knows and loves with his gorilla family.

Fantasia 2000 RT Score: 81
Experience an extraordinary, sight and sound in Fantasia 2000, the triumphant classic from Walt Disney’s vision of Fantasia as a continuing work-in-progress, fully immersive in the world of this innovative blend of music and animated imagery. See the music come to life, hear the pictures burst into existence, and share the excitement that is Fantasia 2000 with your family again and again.

Dinosaur 2000 RT Score: 64
Join the action-packed adventure of a group of dinosaurs overcoming enormous challenges through courage, loyalty, and hope in Disney’s Dinosaur, a special effects phenomenon set 65 million years ago. Dinosaur tells the compelling story of Aladar, an iguanodon who is separated from his own kind and raised by a clan of lemurs, including the wise-cracking Zini and the compassionate Frong. When a meteor shower destroys their home, Aladar and his family follow a herd of dinosaurs heading for the safety of the “nesting grounds” along the way, Aladar befriends Barbles, an elderly brachiosaurus; Zema, an unstoppable styracosaurus; and Neera, a feisty fellow iguanodon. Together, they must stand strong against food and water shortages, the threat of carnivorous attack, and Aladar’s run-ins with the hefty, stubborn lemuroid, Aron.

The Emperor’s New Groove 2000 RT Score: 85
Hilarious comedy rules in Disney’s The Emperor’s New Groove! There’s something for everyone in this wry, funny movie with its dynamo cast, distinctive style, and great music. Emperor Kuzco (voiced by David Spade) is turned into a llama by his evil advisor, Yzma (Kathy Najimy), and her bumbling henchmen, Kronk (Patrick Warburton). Now the ruler who once had it all must form an unlikely alliance with a pleasant peasant named Pacha (John Goodman) together, they must overcome their differences as they embark on a hilarious, “groovy” mission to discover the meaning of life. Everyone has never been this much fun!

Monsters, Inc. 2001 RT Score: 96
There’s a reason why there are monsters in children’s closets—it’s their job. Monsters, Inc. is the most successful scream-processing factory in the monster world, and there is no etter scarier than James P. Sullivan. But when “Sulley” accidentally lets a little human girl into Monstropolis, his life turns upside down for him and his buddy Mike.

Atlantis: The Lost Empire 2001 RT Score: 49
The world’s most highly qualified crew of archaeologists and explorers are led by historian Mei Tian, as they board the incredible, 1,000-foot submarine Nautilus and head deep into the mysteries of the sea. The underwater expedition takes an unexpected turn when the team’s mission must switch from exploring Atlantis to protecting it filled with stunning visual effects, this captivating story is loaded with action, humor, and heart. This winning tale celebrates the bonds of family (O’Hara) and friendship.

Lilo and Stitch 2002 RT Score: 86
Lilo’s an independent little girl, Stitch is a mischievous creature from outer space, and when their worlds collide, it’s love — and chaos! At first sight, paired with action, humor, and heart, this winning tale celebrates the bonds of family (O’Hara) and friendship.
Appendix B

Treasure Planet
2002 | RT Score: 69

Buckle up for thrills and excitement as a classic story of friendship, courage, and self-discovery gets an incredible futuristic twist for an all-new generation. A secret map inspires a thrilling treasure hunt across the universe as young Jim Hawkins and a hilarious cosmic crew led by the daring Captain Amelia set off in search of their destiny — aboard a glittering space galleon. Jim meets the ship’s cyborg cook, John Silver, who teaches him the value of friendship and the power of dreams. Jim soon teams up with his crazy new robot pal, B. O. N. I. and the The Incredibles
2004 | RT Score: 97

It takes a will of steel to hide your superhuman abilities from a world that still needs you. Yet, no longer appreciates what you can do, battling a bullying boss and a boring job, Mr. Incredible longs for the glory days of upholding law and order while his superhero, man family tries to fit in with their “normal” life. Relief from quiet suburbia finally comes years later, when the family discovers a diabolical plan and must bring together their respective strengths to save the day.

Chicken Little
2005 | RT Score: 37

When the sky really is falling and Santa’s flown the coop, who will rise to save the day? Together with his mystical band of misfit friends, little Chicken Little must hatch a plan to save the planet from alien invasion and prove that the world’s biggest hero is a little chicken.

Cars
2006 | RT Score: 73

Aspiring champion race car Lightning McQueen is on the fast track to success, fame, and everything he’s ever hoped for — until he takes an unexpected detour on Dusty Route 66. His good luck charm transforms into a tailspin when a small-town community that once forgot shows McQueen what he’s been missing in his high-octane life.

Meet the Robinsons
2007 | RT Score: 67

Have the “time” of your life with Disney’s fun-filled comedy! Meet the Robinsons, a thrilling adventure that takes you to a whole new world full of imagination and surprises. Join a brilliant young inventor named Lewis as he sets off on a time-traveling journey to find the family he never knew in the fantastical world of 2035. Hip-hop frogs and dogs that wear glasses are as common as talking dinosaurs in an amazing twist. Lewis discovers that the fate of the future rests in his hands, but he can’t save it alone — he’ll need every bit of ingenuity he can get from the wonderfully wacky Robinson family, who help him learn to keep moving forward and never stop believing in himself. Blast off with Meet the Robinsons — it’s an exciting trip your whole family will enjoy.

Ratatouille
2007 | RT Score: 96

A rat named Remy dreams of becoming a great chef despite his family’s wishes. The obvious problem of being a rat in a decedent restaurant profession. Remy is determined to prove reym in the sewers of Paris. He finds himself ideally situated beneath a restaurant famous by its culinary hero, Auguste Gusteau. Emile’s passion for cooking soon sets into motion a hilarious and exciting rat race that turns the world of Paris upside down.

Wall-E
2008 | RT Score: 95

What if mankind had to leave Earth and somebody forgot to turn the last robot off? After hundreds of years doing what he was built for, Wall-E discovers a new purpose in life when he meets a sleek search robot named Eve. Eve comes to realize that Wall-E has inadvertently stumbled upon the key to the planet’s future, and races back to space to report to the humans. Meanwhile, Wall-E chases Eve across the galaxy and sets into motion one of the most imaginative adventures ever brought to the big screen.

Finding Nemo
2003 | RT Score: 99

In the colorful and warm tropical waters of the great Barrier Reef, a clown fish named Marlin lives safe and secured in his anemone home with his only son, Nemo. Fearful of the dangers and its unpredictable risks, he struggles to protect his son. Nemo, like all young fish, is eager to explore the mysterious reef. When Nemo is unexpectedly taken far from home and thrust into a tacky dentist’s fish tank, Marlin finds himself the unlikely hero on an epic journey to rescue his son.

Home on the Range
2004 | RT Score: 53

When a greedy outlaw schemes to take possession of the “patch of heaven” daffy daisy farm, three determined cows, a karate kicking stallion named Duke, and a colorful coral of cutters join forces to save their home. The stakes are sky high as this unlikely animal alliance runs their horses and match wits with a mysterious band of bad guys.

Brother Bear
2003 | RT Score: 37

Disney proudly presents Brother Bear, an epic animated adventure full of comedy and heart with five great songs from Academy Award® winner Phil collagen’s (L Aristocats) original song. When an impulsive boy named Kenai is magically transformed into a bear, he must literally walk in another’s footsteps until he learns some valuable life lessons. His courageous and often zany journey introduces him to a forest full of wildlife, including the lovable bear cub, Boog, hilarious moose butt and tusk, wooly mammoths, samba dancing bears, and more.

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BOLT
2008
RT SCORE: 89
GET READY FOR THE MOST PMS-ITELY AWESOME ADVENTURE EVER! BOLT IS THE STAR OF THE BIGGEST SHOW IN HOLLYWOOD! THE PROBLEM IS, HE THINKS IT REAL, AND AFTER HE'S ACCIDENTALLY SHIPPED TO NEW YORK CITY, HE'S DETERMINED TO UNLEASH HIS MIND-BLOWING "SUPER POWERS" TO DEFEAT EVIL AND FIND A WAY HOME EXPERIENCE ALL THE HIGH-FLYING, DEATH-DEFYING STUNTS BOLT AND HIS LAUGHER-SIZED STAFF OF PERFORMERS SET OFF ON THEIR INREDIBLE JOURNEY – AN ACTION-PACKED QUEST IN WHICH BOLT DISCOVERS YOU DON'T NEED SUPER POWERS TO BE A HERO.

THE PRINCESS AND THE FROG
2009
RT SCORE: 85
WALT DISNEY ANIMATION STUDIOS PRESENTS THE MUSICAL THE PRINCESS AND THE FROG, AN ANIMATED CLASSIC SET IN THE GENERATION OF LOUISIANA. THIS IS A MODERN TWIST ON A CLASSIC TALE FEATURING A BEAUTIFUL GIRL NAMED TIANA (ANICA NON ROSE), A FROG PRINCE WHO DESPERATELY WANTS TO BE HUMAN AGAIN AND A FATEFUL FLYING ROSE THAT LEADS THEM BOTH ON A HILARIOUS ADVENTURE THROUGH THE MYSTICAL BEAUTY OF LOUISIANA. THE PRINCESS AND THE FROG MAKES THE RETURN TO HAND-DRAWN ANIMATION FROM THE REVIVED TEAM OF JOHN MUSKER AND RON ELEMANS, WITH MUSIC BY OSCAR-WINNING COMPOSER RANDY NEWMAN.

UP
2009
RT SCORE: 98
A 78-YEAR-OLD GIRLHOOD DREAM BALLOON SALESMAN IS NOT YOUR AVERAGE HERO. WHEN HE TESTS THOUSANDS OF BALLOONS TO HIS HOUSE AND FLIES AWAY TO THE WILDS OF SOUTH AMERICA, HE FINALLY FILLS HIS LIFELONG DREAM OF ADVENTURE. BUT AFTER CAREFUL ANS A 78-YEAR-OLD SWINGING MAD HENRIETTA BELL, THIS UNLIKELY DUO SOON FINDS THEMSELVES ON A HILARIOUS JOURNEY IN A LOST WORLD FILLED WITH DANGER AND SURPRISES.

TANGLED
2010
RT SCORE: 89
WHEN THE KINGS' MOST WANTED AND MOST CHARMING BANDIT, FLYNN RIDER (ZACHARY LEVI), HIDES OUT IN A MYSTERIOUS TOWER, HE'S TAKEN HOSTAGE BY RAPUNZEL (MANDY MOORE), A BEAUTIFUL AND FESTY TOWER-BOUND TEEN WITH 70 FEET OF MAGICAL, GOLDEN HAIR. FLYNN'S CURIOSITY, WHO'S LOOKING FOR HER TICKET OUT OF THE TOWER WHEN HE'S LOCKED AWAY FOR YEARS, STRIKES A DEAL WITH THE QUEEN'S THIEF, AND THE UNLIKELY DUO SETS OFF ON AN ACTION-PACKED ESCAPE, COMPLETE WITH A SUPER-POWERED HUSTLER (MAUDY) AND THE GRUFFEST OF PUB THUGS.

TOY STORY 3
2010
RT SCORE: 98
THE CREATORS OF THE BLOOMING TOY STORY FILMS RE-OPEN THE TOY BOX AND BRING BACK THE DELIGHTFUL WORLD OF OUR FAVORITE GANG OF TOY CHARACTERS IN TOY STORY 3. AS WOODY AND THE REST OF HIS PLAYFUL TOYS ARE TRoubled ABOUT THEIR UNCERTAIN FUTURE, TOY STORY 3 IS A CONVOLUTED ADVENTURE THAT LEADS THE TOYS IN A ROOM FULL OF UNNAMED TOYS WHO CAN'T WAIT TO GET THE STICKY LITTLE FINGERS ON THESE "NEW" TOYS. ITS PANICOMONIUM AS THE TOYS TRY TO STAY TOGETHER, ENSURING THAT "NO TOY GETS LEFT BEHIND!"

Winnie the Pooh
2011
RT SCORE: 91
WALT DISNEY ANIMATION STUDIOS PROUDLY PRESENTS WINNIE THE POOH, A WONDERFUL NEW ADVENTURE FROM THE CREATORS OF THE HIT FILM BOLT. RETURN TO THE HUMBLE WOODE WOOD FOR A HEARTWARMING ORIGIONAL MOVIE, AND REUNITE WITH THE BELVED BEAR AND HIS SILLY BUT STEADFAST FRIENDS FOR A MAGICAL FAMILY EXPERIENCE. WHEN BAD OLDE EYORE LOSES HIS TAIL, OWL SENDS THE WHOLE GANG POOH, TIGGER, RABBIT, EYORE, AND KANGA AND ROO ON A WILD JOURNEY TO HELP EYORE, AND SAVE CHRISTOPHER ROBIN FROM THE MYSTERIOUS BACKDROP. IN THE END, IT TURNS OUT TO BE A VERY BUSY DAY FOR A BEAR WHO SIMPLY SET OUT TO FIND SOME HUNNY INSPIRED BY FIVE STORIES FROM A A MUNIC BOOKS AND CREATED IN DISNEY'S LEGENDARY HAND-DRAWN STYLE. THIS ALL-NEW CLASSIC INTRODUCES ONE OF THE WORLDS MOST LOVED CHARACTERS TO A WHOLE NEW GENERATION, Bustin' WITH BRANT MARK SONGS, THE WONDERFULLY WITNICAL WINNIE THE POOH IS A MUST-OWN.

CARS 2
2011
RT SCORE: 89
STAR RACECAR LIGHTING MACQUOEN AND THE INCOMPARABLE TOW TRUCK MATER TAKE THEIR FRIENDSHIP TO EXISTING NEW PLACES IN CARS 2 WHEN THEY HEAD OVERSEAS TO COMPETE IN THE FIRST-EVER WORLD GRAND PRIX TO DETERMINE THE WORLD'S FASTEST CAR, BUT THE ROAD TO THE CHAMPIONSHIP IS FILLED WITH PLENTY OF RIVALS, DETOURS, AND HILARIOUS SURPRISES WHEN MATER GETS CAUGHT UP IN AN INTRIGUING ADVENTURE OF HIS OWN. INTERNATIONAL ESPIONAGE.

BRAVE
2012
RT SCORE: 78
SINCE ANCIENT TIMES, STORIES OF EPIC BATTLES AND MYSTICAL LEGENDS HAVE BEEN TELLING GENERATIONS ACROSS THE RUGGED AND MYSTERIOUS HIGHLANDS OF SCOTLAND. A NEW TALE TURNS THE LORNE WHEN THE COURAGEOUS MERIDA CONFRONTS TRADITION AND CHALLENGES DESTINY TO CHANGE HER FATE.

WRECK-IT RALPH
2012
RT SCORE: 87
FROM WALT DISNEY ANIMATION STUDIOS COMES A HILARIOUS, ARCADE-GAME-HOPPING JOURNEY IN DISNEY'S WRECK-IT RALPH. FOR DECADES, RALPH HAS PLAYED THE BAD GUY IN HIS POPULAR VIDEO GAME IN A BOLD MOVE, HE EMBARKS ON AN ACTION-PACKED ADVENTURE AND SETS OUT TO PROVE TO EVERYONE THAT HE IS A TRUE HERO. AS HE EXPLORES EXISTING NEW WORLDS, HE TEAM UP WITH SOME UNEXPECTED NEW FRIENDS INCLUDING FEISTY KISER, VON SNOOTIE VIRGE, WHEN AN EVIL EMERGES TO DESTROYS THEIR WORLD, RALPH REALIZES HE HOLDS THE FATE OF THE ENTIRE ARCADE IN HIS MASTERY HANDS.

MONSTERS UNIVERSITY
2013
RT SCORE: 80
WE ALL KNOW MIKE WIZZMERE AND JAMES SULLIAN TO BE AN INSEPERABLE PAIR, BUT THAT WASN'T ALWAYS THE CASE. FROM THE MOMENT THEY WERE INDIAN TOGETHER, THEY COULDN'T STAND EACH OTHER. MONSTERS UNIVERSITY UNLOCKS THE DOOR TO HOW MIKE AND SULLY OVERCAME THEIR DIFFERENCES AND BECAME THE BEST OF FRIENDS.
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FROZEN 2013 RT SCORE: 90
In FROZEN, FEARLESS OPTIMIST ANNA TEAMS UP WITH RUGGED MOUNTAIN MAN KRISTOFF AND HIS LOYAL REINDEER Sven in an EPIC JOURNEY, ENCOUNTERING EVEREST-LIKE CONDITIONS, MYSTICAL TROLLS AND A HILARIOUS SNOWMAN NAMED OLAF IN A RACE TO FIND ANNA’S SISTER ELSA, WHOSE ICE POWERS HAVE TRAPPED THE KINGDOM OF ARENDELL IN ETERNAL WINTER.

BIG HERO 6 2014 RT SCORE: 89
WITH ALL THE HEART AND HUMOR AUDIENCES EXPECT FROM WALT DISNEY ANIMATION STUDIOS, BIG HERO 6 IS AN ACTION-PACKED COMEDY ADVENTURE THAT INTRODUCES BAIXA, A LOVELY PERSONAL COMPANION ROBOT WHO FORMS A SPECIAL BOND WITH ROBOTS PRODUCED HERO HAMADA. WHEN A DEVASTATING TUNNEL FIRE CAPTURES THEM INTO THE MIDST OF A DANGEROUS PLOT UNFOLDING IN THE STREETS OF SAN FRANCISCO, HAMADA TURNS TO BAIXA AND HIS GROUP OF FRIENDS — WHO TRANSFORM INTO A BAND OF UNLIKELY HEROES.

THE GOOD DINOSAUR 2015 RT SCORE: 76
THE GOOD DINOSAUR ASKS THE QUESTION: WHAT IF THE ASTEROID THAT FOREVER CHANGED LIFE ON EARTH MISSED THE PLANET COMPLETELY AND GIANT DINOSAURS NEVER BECAME EXTINCT? PIXAR TAKES YOU ON AN EPIC JOURNEY INTO THE WORLD OF DINOSAURS WHERE A CURIOUS DINOSAUR NAMED ARLO MAKES AN UNLIKELY HUMAN FRIEND WHILE TRAVELING THROUGH A HORBIZ AND MYSTERIOUS LANDSCAPE. ARLO LEARNS THE POWER OF CONFRONTING HIS FEARS AND DISCOVERS WHAT HE IS TRULY CAPABLE OF.

INSIDE OUT 2015 RT SCORE: 98
GROWING UP CAN BE A DUMPY ROAD AND IT’S NO EXCEPTION FOR RILEY, WHO IS UPROOTED FROM HER MIDWEST LIFE WHEN HER FATHER STARTS A NEW JOB IN SAN FRANCISCO. LIKE ALL OF US, RILEY IS GUIDED BY HER EMOTIONS — JOY, FEAR, ANGER, DISGUST AND SADNESS. THE EMOTIONS LIVE IN HEADQUARTERS, THE CONTROL CENTER INSIDE RILEY’S MIND, WHERE THEY HELP ADVISE HER THROUGH EVERY EXCITEMENT AND NEW EXPERIENCE SHE MEETS. JOURNEYING TO DOEPPIE AND IDEAS, RILEY AND HER EMOTIONS STRUGGLE TO ADJUST TO A NEW LIFE IN SAN FRANCISCO, TURNING EVENTS IN HEADQUARTERS ALTHOUGH JOY RILEY’S MAIN AND MOST IMPORTANT EMOTION, TRIES TO KEEP THINGS POSITIVE, HER EMOTIONS CONFLICT CAN HOW BEST TO NAVIGATE A NEW CITY, HOUSE AND SCHOOL.

ZOOTOPIA 2016 RT SCORE: 96
WALT DISNEY ANIMATION STUDIOS PRESENTS A HEARTWARMING COMEDY ADVENTURE SET IN THE MODERN MAMMAL METROPOLIS OF ZOOTOPIA. WITH HABITAT NEIGHBORHOODS LIKE BITTY SAHARA, SOOTY SHRUB AND FRIGE TIMURAT, IT’S A MIXING POT WHERE ANIMALS FROM EVERY ENVIRONMENT LIVE TOGETHER — A PLACE WHERE NO MATTER WHAT YOU ARE, FROM THE BIGGEST ELEPHANT TO THE SMALLEST SHRIMP — YOU CAN BE ANYTHING. BUT WHEN OPTIMISTIC CROSSING JUDY HOOPS ARRIVES, SHE DISCOVERS THAT BEING THE FIRST BUNNY ON A POLICE FORCE OF GIANT TUNGHAN ANIMALS ISN’T AS EASY. DETERMINED TO PROVE HERSELF, SHE JUMPS AT THE OPPORTUNITY TO CRACK A CASE, EVEN IF IT MEANS PARTNERING WITH FAST-TALKING SCAM-ARTIST FOX NICK WILDE TO SOLVE THE MYSTERY.

MOANA 2016 RT SCORE: 95
FROM WALT DISNEY ANIMATION STUDIOS COMES MOANA, AN EPIC ADVENTURE ABOUT A SPIRITED TEEN WHO SETS SAIL ON A DARING MISSION TO PROVE HERSELF A MASTER WAYFINDER AND FULFILL HER ANCESTORS’ UNFINISHED QUEST DURING HER JOURNEY, MOANA (AUSTRALIAN) MEETS THE MIGHTY DEMIGOD MAUI (Dwayne Johnson), AND TOGETHER THEY CROSS THE OCEAN ON A FUN-FILLED, ACTION-PACKED JOURNEY FEATURENING ENORMOUS SEA CREATURES, BREATHTAKING UNDERWORLD AND IMPOSSIBLE JETS. ALONG THE WAY, MOANA DISCOVERS THE ONE THING SHE’S ALWAYS SOUGHT: HER OWN IDENTITY.

FINDING DORY 2016 RT SCORE: 94
FORGETFUL BLUE TANG DORY IS LIVING HAPPILY IN THE KEEF WITH MARLON AND NEMO. WHEN SOMETHING SOMETIMES REMEMBERS THAT SHE HAS A FAMILY OUT THERE WHO IS LOOKING FOR HER, THE TWO TAKES OFF ON A LIFE-CHANGING ADVENTURE ACROSS THE OCEAN TO CALIFORNIA’S PRESTIGIOUS MARINE LIFE INSTITUTE, A REHABILITATION CENTER AND AQUARIUM IN AN EFFORT TO FIND HER MOTHER AND DAD. DORY CHALLENGES THE HELP OF THREE OF THE MLI’S MOST INTRIGUING RESIDENTS: HANK, A CAMARADERIUS SPYCHORUS WHO FREQUENTLY GIVES EMPLOYEES THE SLIP, BAILEY, A BELUGA WHALE WHO IS CONVINCED HIS BIOLOGICAL SONAR SKILLS ARE ON THE Fritz, AND DESTROY, A NEIGHBORS WHALE SHARK DEEPLY NAVIGATING THE COMPLEX INNER WORKINGS OF THE MLI, DORY AND HER FRIENDS DISCOVER THE MAGIC WITHIN THEIR PIPLAPS, FRIENDSHIPS AND FAMILY.

CARS 3 2017 RT SCORE: 70
BLINDSIDED BY A NEW GENERATION OF BLAZING-FAST RACERS, THE LEGENDARY LIGHTNING MCQUEEN (VOICE OF OWEN WILSON) IS SUDDENLY PUSHED OUT OF THE SPORT HE LOVES — TO GET BACK IN THE GAME, HE WILL NEED THE HELP OF AN EAGER YOUNG RACE TECHNICIAN WITH HER OWN PLAN TO WIN. INSPIRATION FROM THE LATE TALENTED HARBOR HORN, A FEW UNEXPECTED TURNS, PROVING THAT #95 ISN’T THOUGH YET WILL TEST THE HEART OF A CHAMPION ON PISTON CUP RACING’S BIGGEST STAGE!

COCO 2017 RT SCORE: 97
IN DISNEY-PIXAR’S EXTRAORDINARY ADVENTURE, A BOY WHO DREAMS OF BECOMING A GREAT MUSICIAN EMBARKS ON A JOURNEY TO THE MEXICAN FREIGHT BEHIND HIS ANCESTORS’ STORIES AND TRADITIONS.

RALPH BREAKS THE INTERNET 2018 RT SCORE: 88
FROM WALT DISNEY ANIMATION STUDIOS COMES THE ACTION-PACKED ADVENTURE RALPH BREAKS THE INTERNET. RALPH AND FRIEND EMPIR VANELLOPE RISK IT ALL BY TRAVELING TO THE WORLD WIDE WEB IN SEARCH OF A PART TO SAVE HER GAME, SUGAR RUSH. THEY’RE IN A HURRY OVER THEIR HEADS, AND THEY MUST RELY ON THE CITIZENS OF THE INTERNET—INCLUDING YESS, THE HEAD ALGORITHM AND HEART AND SOUL OF THE TREND-MAKING SATIRE BUZZTREN, AND SMACK, A TOUGH-AS-HUCKS DRIVER FROM THE CRITICALLY LOVED AUTO-RACING GAME SLAUGHTER RACE— TO HELP THEM NAVIGATE THEIR WAY.
TOY STORY 4
2018
RT SCORE: 97
WOODY HAS ALWAYS BEEN CONFIDENT ABOUT HIS PLACE IN THE WORLD AND THAT HIS PRIORITY IS TAKING CARE OF HIS KID. WHETHER THAT’S ANDY OR BONNIE, BUT WHEN BONNIE ADDS A RELUCTANT NEW TOY CALLED “FORKY” TO HER ROOM, A ROAD TRIP ADVENTURE ALONGSIDE OLD AND NEW FRIENDS WILL SHOW WOODY HOW BIG THE WORLD CAN BE FOR A TOY.

INCREDIBLES 2
2018
RT SCORE: 93
EVERYONE’S FAVORITE FAMILY OF SUPERHEROES IS BACK IN “INCREDIBLES 2!” — BUT THIS TIME HELEN (VOICE OF MOLLY HUNTER) IS IN THE SPOTLIGHT, LEAVING BOB (VOICE OF CRIC T. NELSON) AT HOME WITH VIOLET (VOICE OF SARAH POWELL) AND DASH (VOICE OF HARK NELSON) TO NAVIGATE THE DAY-TO-DAY HEROICS OF “NORMAL” LIFE. IT’S A TOUGH TRANSITION FOR EVERYONE, MADE TOUGHER BY THE FACT THAT THE FAMILY IS STILL UNAWARE OF BABY JACK-JACK’S EMERGING SUPERPOWERS. WHEN A NEW VILLAIN HATCHES A BRILLIANT AND DANGEROUS PLOT, THE FAMILY AND FROZONE (VOICE OF SAMUEL L. JACKSON) MUST FIND A WAY TO WORK TOGETHER AGAIN—WHICH IS EASIER SAID THAN DONE, EVEN WHEN THEY’RE ALL INCREDIBLE.

FROZEN II
2019
RT SCORE: 77
WHY WAS ELSA BORN WITH MAGICAL POWERS? WHAT TRUTHS ABOUT THE PAST AWAITS ELSA AS SHE VENTURES INTO THE UNKNOWN TO THE ENCHANTED FORESTS AND DARK SEAS BEYOND ARENDELLE? THE ANSWERS ARE CALLING HER BUT ALSO THREATENING HER KINGDOM. TOGETHER WITH ANNA, KRISTOFF, OLAF AND SYM, SHE’LL FACE A DANGEROUS BUT REMARKABLE JOURNEY IN FROZEN. ELSA REALIZED HER POWERS WERE TOO MUCH FOR THE WORLD. IN FROZEN 2, SHE MUST HOPE THEY ARE ENOUGH.

ONWARD
2020
RT SCORE: 88
SET IN A SUBLIME FANTASY WORLD, DISNEY AND PIXAR’S “ONWARD” INTRODUCES TWO TEENAGE ELF BROTHERS WHO EMBARK ON AN EXTRAORDINARY QUEST TO DISCOVER IF THERE IS STILL A LITTLE MAGIC LEFT OUT THERE.


Elman, Julie Passanante. “Slothful Movements: Disability, Acceleration, and Capacity Feminism in Disney’s


Wall-e. Film. Canada: Pixar Animation Studios & Walt Disney Pictures, 2008.


Zootopia. Film. Canada: Walt Disney Animation Studios, 2016.

ILLUSTRATIONS SOURCES

Fig. 01  Original composition Adapted from “Architect at his drawing board.” wood engraving (Teknisk Ukeblad. May 25, 1893)

Fig. 02  Personal photo from author’s collection

Fig. 03  Original composition


Fig. 05  Vitagraph Company Of America, and AfI/Blackton. Humorous Phases of Funny Faces. produced by Blackton, James Stuart, Uction United States: Vitagraph, 1906. Video. https://www.loc.gov/item/00694006/.


Fig. 08  “Walt’s First Fairy Tales.” D23, March 27, 2018. https://d23.com/walt-files-first-fairy-tales/.


Fig. 11  “Steamboat Willie (Film).” D23. Accessed April 1, 2021. https://d23.com/a-to-z/steamboat-willie-film/.

Fig. 12  Hellerman, Jason. “How Disney’s Iconic Multiplane Camera Changed Animation.” No Film School. No Film School, February 28, 2020. https://nofilmschool.com/disney-multiplane-camera.

Fig. 13  “Snow White and the Seven Dwarfs.” IMDb. IMDb.com, February 4, 1938. https://www.imdb.com/title/tt0029583/?ref_=tt.mv.close.

Fig. 15  Catmull, Ed, and Amy Wallace. Creativity, Inc.: Overcoming the Unseen Forces That Stand in the Way of True Inspiration. Toronto: Vintage Canada, 2014.

Fig. 16  DisneyDetail. “September 8.” DisneyDetail, September 8, 2012. https://disneydetail.me/2012/09/08/september-8/.


Fig. 18  Carlson, Wayne E. Computer Graphics and Computer Animation: a Retrospective Overview. The Ohio State University, 2017.

Fig. 19-20  Pixar Animation Studios. Accessed March 31, 2021. https://www.pixar.com/andre-wally-b


Fig. 22-23  Pixar Animation Studios. Accessed March 31, 2021. https://www.pixar.com/luxo-jr

Fig. 24  Wall-e. Film. Canada: Pixar Animation Studios & Walt Disney Pictures, 2008.

Fig. 25  Pixar Animation Studios. Accessed March 31, 2021. https://www.pixar.com/tin-toy

Fig. 26  The Little Mermaid. Burbank, CA.: Walt Disney Pictures, 1989.


Fig. 29-30  “The Plausible Impossible.” Episode. Walt Disney’s Disneyland 3, no. 8. Burbank, California: ABC, October 31, 1956.


Fig. 36  Wright, Frank Lloyd. "Broadacre City: A new community plan." Architectural Record 77, no. 4 (1935): 243-254.


Fig. 44  Cook, Peter. “Plug-in City: Maximum Pressure Area, project (Section)” 1964


Fig. 48-49  Original compositions

Fig. 50  “The Lion King.” IMDb. IMDb.com, June 23, 1994. https://www.imdb.com/title/tt0110357/.

Fig. 51-54  Original compositions


Fig. 56-60  Original compositions


Fig. 62  Original compositions


Fig. 64-67  Original compositions


Fig. 70  “Howl's Moving Castle Movie Poster (11 x 17).” Amazon.ca. Accessed May 25, 2021. https://www.amazon.ca/Howls-Moving-Castle-Movie-Poster/dp/B003T179XI.


Fig. 72  Original composition adapted from Fernandez, Toni. “Donald Duck Inspired by Norman Rockwell's-Self Portrait”
Fig. 72
Donald at the Drawing Board