Graphics in Adventure Games

The very first computers amazed people with their computational ability, but there was nothing to see, nothing visible to present to an audience. Many of the first computer games were developed in response to this dilemma. Spacewar was one of these games; the goal of the original development of Spacewar was to produce a graphical representation that could be manipulated by the user. The graphical representation allowed people to actually see what the computer was doing, and interact with the computer in ways that had not been possible before\(^1\). Graphics, and more specifically the ability to graphically represent something on a computer screen, became the foundation for the computer games industry. As each new advance in graphical technology became available, new games are developed to make use of the new representational capabilities. In the field of computer games, graphics were originally far behind the graphics available in the console game industry, but as the demand for computer games has increased so have the graphical capabilities of home computers, as well as the software support for graphics.

Because graphics are an integral part of the computer game industry, changes in the graphics industry has also been one of the driving forces behind many of the changes in the computer game industry. The adventure game genre is one that has been drastically affected by the development of computer graphics. Originally presented in text only format, adventure games are now developed in detailed 3D polygon rendering. One series of adventure games that has run the gamut from primitive 16 color two dimensional sprites to three dimensional polygon rendered presentation is the series King’s Quest by Sierra Entertainment, formerly Sierra On-Line, originally founded in the late 1970s as On-Line systems by Roberta and Ken Williams\(^2\). Because the history of graphics and adventure games is very broad, it is necessary to focus on one series of games. By focusing on the King’s Quest series it will be

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\(^2\)
possible to examine how graphics have impacted the adventure game genre, not only in terms of the visual representation, but also in terms of the storytelling aspects of adventure games.

In 1975, Will Crowther created the first computer adventure game. Completely text based, this game inspired a host of similar text based adventures. For eight years or so text was the defining characteristic of the adventure game genre, until, in 1980, something revolutionary happened in the world of adventure games. In 1980, Roberta and Ken Williams developed the first adventure game with graphics. The game, Mystery House, created for the Apple IIe, was a text based murder mystery. It was a very simple game compared to many of the text adventure games available at the time, but it had the added feature of illustrative graphics. Roberta Williams drew 70 static, first person perspective, black and white 2-D graphics for the game using a device called a Versawriter, a primitive type of scanner, and Ken Williams wrote the software to connect the Versawriter to the computer. The game eventually sold over 10,000 copies, and not only the game that started Sierra, but also the graphical adventure game genre.

In 1981 IBM developed the Color Graphics Adapter (CGA). The CGA graphics system could display a maximum of four colors at 320 by 200 pixels, and two colors at 640 by 200 pixels. In addition to the CGA system, IBM developed a game engine called the Adventure Game Interpreter (AGI) that used CGA graphics. AGI was originally designed for the PCjr, but it was not long before it was made accessible to other personal computer platforms available at the time, such as Apple, Amiga, and others. The AGI used a typing interface much like the traditional text based adventure games, but it

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2 “Corporate Information” Sierra Entertainment <http://www.sierra.com/company/>
allowed programmers to add animated graphics to the games\(^6\). Characters could walk between scenes, move behind and in front of objects, and even interact with environment in basic ways, such as swimming through a lake\(^7\). Sierra produced a few games on the AGI system that used the CGA graphics, but in 1994, IBM introduced the EGA graphics system, which supported 16 colors, from a selection of 64 colors, with a resolution of 640 by 350 pixels\(^8\). Version two of the AGI system was released using the EGA graphics system\(^9\). It was on the AGI game engine using the EGA graphic system that Sierra released the first King’s Quest game.

King’s Quest 1, called “King’s Quest: Quest for the Crown” was released in 1984, originally commissioned by IBM as a promotional feature for the PCjr. The game was re-released a year later on the IBM PC. Additionally, it was the first game ever produced using the EGA graphics system. The story of the game focuses on Sir Graham, a knight of the kingdom of Daventry, who’s mission is to recover three treasures that were stolen from the kingdom. If Sir Graham succeeds in recovering the treasures he is crowned King of Daventry\(^10\). The puzzles in King’s Quest 1 were unique in that there were many ways to solve them, as well as ways to get around particularly difficult puzzles\(^11\).

In 1985 Sierra released the next installment in the King’s Quest series, King’s Quest 2: Romancing the Throne. It was developed using the same AGI system as King’s Quest 1, using the same style of CGA graphics\(^12\). There was not much improvement in the quality of graphics between this game and the first game in the series, but vocabulary of the text driver was expanded. The puzzles offered in this game were slightly different than the puzzles offered in the first one. In King’s Quest 1, all the

\(^6\) “What is AGI?” The Ultimate AGI & SCI Web Site <http://www.classicgaming.com/agisci/agiinfo.shtml>
\(^7\) Adam Rodman, “AGI: The Birth of the Graphic Adventure” Just Adventure + <http://www.justadventure.com/articles/Engines/AGI/AGI.shtml>
\(^9\) “What is AGI?” The Ultimate AGI & SCI Web Site
\(^10\) “King’s Quest 1” Sierra Planet <http://www.sierraplanet.com/>
puzzles were geared toward the final goal of finding the three missing treasures. In King’s Quest 2, however, many of the puzzles were in a sense an aside to the main goal of the game. The story of the game again follows King Graham, formerly Sir Graham of King’s Quest 1, who must travel over the world in search of the Princess Valenice, with whom he has fallen in love. In contrast to the puzzles offered in King’s Quest 1, many of the puzzles in this game are not as clearly related to the goal of the game; many of the puzzles focus on things such as opening doors, instead of being clearly linked to the goal of the game.13

The third game in the series, King’s Quest 3: To Heir is Human, released in 1986, was very different from its predecessors. The first aspect of the game that was drastically different was the storyline. The main character is Gwydion, a young slave of the evil wizard Manannan. Manannan kills all his slaves when they reach 18, and Gwydion is nearing his 18th birthday. The goal of the game is to escape Manannan and figure out Gwydion’s true identity. When the game was first released, many of the fans complained that it was not a true King’s Quest game because it was not based in the kingdom of Daventry. Game players had to get to the end of the game before they discovered that Gwydion was actually Prince Alexander, heir to the throne of Daventry. There was also a magical component added to the game play that was not present in the first two games. The game itself was also very different from the previous games. The quality of the graphics was improved, the parser was updated, and the game was expanded to almost twice the size of previous games. This game also featured automatic mapping for the first time, but this feature was not popular with many fans and was not continued in later games. This game is among the most popular of the King’s Quest series, because of the unique storyline and creativity of game play.14

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11 Ibid.
12 “King’s Quest 2” Sierra-Quest <http://www.sierra_quest.com/>
13 “King’s Quest 2” Sierra Planet
14 Joppe Bos and Philip Jong, “King’s Quest III: To Heir is Human” The Adventure Collective
In 1988, Sierra released King’s Quest 4: The Perils of Rosella. This was the first King’s Quest game produced by Sierra on their new SCI system. King’s Quest 4 was produced using SCI version 0, which supported EGA graphics and had a text based interface. However, the SCI system was among the first game designing platforms that incorporated sound card technology, as well as mouse support. The game was still designed with a text interface, but the player could use the mouse to move the character in a straight line or interact with a menu. In addition to the new technology used in the game, this was the first King’s Quest game that used a female protagonist. The story presented by the game is that King Graham has been struck down by a magical disease, and Princess Rosella must travel to the magical land of Tamir to find the cure to save her father. The graphics in this game were an improvement over the graphics in previous game, and the mouse support added to the ease of game play.\(^{15}\)

In 1987 IBM introduced the Video Graphics Array (VGA) system. The VGA system has a resolution of 320 by 200 with 256 colors or 640 by 480 with 16 colors. The total number of colors available is 262,144\(^{16}\). The third version of the SCI system, called SCI version 1, incorporated these graphics, as well as a point and click interface that included a toolbar in place of typing\(^ {17}\). The fifth installment in the King’s Quest series, King’s Quest 5: Absence Makes the Heart Go Yonder, was produced on the new SGI system using the VGA graphics. Not only that, this was the first King’s Quest to use hand painted scenes instead of the computer graphics that were used previously. This was also the first King’s Quest that featured MIDI

\(^{15}\)Meredith Young “King’s Quest IV: The Perils of Rosella” The Adventure Collective

\(^{16}\)“VGA” Webopedia <http://www.webopedia.com/Term/V/VGA.html>
based music, and to be released on a CD-ROM version that featured prerecorded dialogue. While the game featured a lot of new technology, the storyline is nowhere near as innovative as some of the previous stores. King Graham is brought back as the main protagonist. The royal family has been kidnapped by the evil wizard Mordack and King Graham must find the wizard to get them back.\textsuperscript{18}

The next installment in the King’s Quest series, King’s Quest 6: Heir Today, Gone Tomorrow, released in 1992, was the first in the series to feature Full Motion Video (FMV) animated sequences. Produced on the SGI version 1 system like King’s Quest 5, this game featured a point and click interface, hand-painted digitized scenes, MIDI music, and the CD-ROM version the game included a song called “Girl in the Tower” by Mark Seibert. The voice acting in this game was an improvement over the voice acting in King’s Quest 5. The quality of the puzzles in this game were for the most part very good, and often had multiple solutions. However, there were a few illogical puzzles that required knowledge from the FMV scenes that the main character could not be aware of but the player was. The storyline of this game is not particularly innovative for the King’s Quest series. The protagonist, Prince Alexander, travels to the Land of the Green Isles in search of the Princess Cassima, whom he has fallen in love with, only to discover she is in trouble and he must help her. At the time, the graphics in this game, especially the FMV sequences were top of the line. Additionally, this game won the 1991 “Best Adventure Game” award from SPA\textsuperscript{19}.

In the late 1980's, as IBM faded as an influential part of graphics development, the Video Electronics Standard Association (VESA), made up of video adaptor and monitor manufacturers, was formed in order to provide standards for video protocols. This group developed the Super VGA (SVGA) system, a collection of video standards that offered better resolution and a broader range of colors than the

\textsuperscript{17} “What is SCI?” The Ultimate AGI and SCI Web Site <http://www.classicgaming.com/agisci/sciinfo.shtml>
\textsuperscript{18} Eivind Robekk Hagerup and Philip Jong, “King’s Quest V” The Adventure Collective <http://www.adventurecollective.com/reviews/kq5.htm>
\textsuperscript{19} Eivind Robekk Hagerup and Philip Jong, “King’s Quest VI” The Adventure Collective
The SVGA system provided 800 by 600 resolution, and up to 16 million colors, although some systems may only display 256 colors because of memory constraints. The seventh game in the King’s Quest series, King’s Quest 7: the Princeless Bride, released in 1994, was produced using the SVGA graphics system. This game moved away from the SCI gaming system of a toolbar and multiple cursors, to a single cursor and a simplified icon system. This game featured cel-animation, in the Disney style, with completely animated characters, voice-covers for each character, and multiple animated FMV scenes. This game was produced only on the CD-ROM format, because it was too big to be published on a disk format. This game was structured very differently from the previous King’s Quest games. There were two primary characters, Queen Valenice, and Princess Rosella, and the game was partitioned into chapters, six in all, with each protagonist appearing in three of the chapters. In the beginning of the game, Queen Valenice and Princess Rosella are sucked into a strange world called Eldritch, each in a different location. The storyline follows the two characters, Queen Valenice and Princess Rosella, as they try to find each other and save the land of Eldritch from the evil witch Malicia. This game is very different from the previous King’s Quest games, not only in the structure of the story with two protagonists, but the animation is completely different from previous games. The Disney-like animation and the simplification of the interface were intended to appeal to broaden the appeal of the games to younger and female audiences. These audiences were more receptive to this King’s Quest than older King’s Quest games, but this game had less appeal among the more traditional adventure gaming audiences, primarily because of the changes in the interface and structure.

In 1996, 3D hardware was becoming widely available. Software to make use of this new

<http://www.adventurecollective.com/reviews/kq6.htm>

“VESA” Webopedia <http://www.webopedia.com/TERM/V/VESA.html>


Philip Jong and Matthew Murray, “King’s Quest VII” The Adventure Collective
hardware was also being developed. 3D graphics make use of polygons to model a three dimensional environment. As the software and hardware aspects of the 3D graphics industry was developed and improved, 3D graphics were introduced into computer games. The most recent King’s Quest game, King’s Quest: Mask of Eternity, released in 1998, was the first King’s Quest game to make use of the 3D polygon modeling technology. The game was developed using a 3D game engine called 3Space. Along with drastic changes to the visual representation of this game, the game play of this game is very different from previous King’s Quest games. The storyline however, while it seems dissimilar from previous King’s Quest games at first, upon further inspection reveals itself to be similar to previous King’s Quest games. In this story the protagonist is Connor, a citizen of Daventry, and the first protagonist not to be related to the royal family in some way. The Mask of Eternity, Daventry’s symbol of truth, light and hope, is destroyed. When it is destroyed everyone in Daventry is turned to stone, except for Conner, who has a piece of the Mask fall on his foot. Connor’s mission is to find the pieces of the Mask and reassemble it. This storyline seems original because of the use of a new character, but it actually resembles the first King’s Quest. In the first installment of the King’s Quest series Sir Graham, also originally not a member of the royal family, must recover three treasures of Daventry. This game differentiates itself from the previous King’s Quest games, however, by adding combat to the puzzle solving structure of previous games. While the style of combat is quite basic compared to many of the other RPG combat games, the inclusion of combat at all was very controversial in this game. This game was geared to attract new audiences, with the 3D graphics and the inclusion of combat, and even the style of naming the game was changed in order to appeal to new gamers. The game was released as The Mask of Eternity, or Roberta William’s King’s Quest: The Mask of Eternity, instead of King’s Quest 8: The Mask of Eternity. The name was changed so it would not be intimidating to new audiences as the eighth

<http://www.adventurecollective.com/reviews/kq7.htm>
<http://www.adventurecollective.com/reviews/kq8.htm>
<http://www.sierraplanet.com/>
game in a series. However, it is possible that by trying to straddle the border between an adventure game and action games this game managed to alienate gamers of both genres. The graphics and 3D effects are not up to the level of action games that were released at the same time, nor is the combat sophisticated enough to attract many action gamers, and it is the combat that make the game undesirable to fans of traditional adventure game.

As an adventure game series, King’s Quest has gone through an incredible amount of transformations. The graphics are not the only aspect of the games that have changed, although the transition from 16 color CGA to 3D polygon rendering has been an integral part of the evolution of the series. The style of interface has also changed, from a text interface to a point and click interface. Through all this, this series has for the most part stayed true to the adventure game genre, although the final installment is questionable. The point of these games was to present a good adventure game, but in order to understand them better it is necessary to examine what is it that has driven the graphical and interface challenges. In examining these issues it will be possible to discover what makes an adventure game good and determine if improving the graphics and changing the interface made these games into better adventure games.

In order to understand the issues surrounding adventure games and graphics, it is important to understand what an adventure game is, and why so many people love to play them. The basic structure of adventure games is that the player has a goal, and in order to complete this goal the player must solve a series of puzzles, the solutions to which bring him or her closer to the goal. Though structure of game play seems simple, there is something about it that is incredibly attractive to many game players. Looking back in history, the type of game that resembles this most is the ancient riddle game. Riddle games required players to take a verbal puzzle, or riddle, and find the solution in order to move on to the next puzzle. In a sense, adventure games are the modern manifestation of riddle games. According to Johan Huizinga in his book *Homo Ludens*, “The riddle is a sacred thing full of secret power, hence a

25 Christensen, “Mask”
26 Barak Engel, “King’s Quest 8: Mask of Eternity, Main Review” Games Domain
dangerous thing” 27. The relation between riddles and the original text games is rather apparent. Both types of games deal with ways to manipulate language in order to solve puzzles. The link between graphical adventure games and riddle games is less clear, but it is the interaction of the player with the game that provides the connection to riddle games. In each type of game the player is required to use his or her intellect in order to solve the challenge placed before them and advance in some way. This does not, however, explain the attraction of these types of games. As Huizinga discusses riddles further however, the appeal becomes clear: “The answer to an enigmatic question is not found by reflection or logical reasoning. It comes quite literally as a sudden solution– a loosening of the tie by which the questioner holds you bound. The corollary of this is that by giving the correct answer you strike him powerless” 28. These games give the player a sense of defeating an adversary, simply with the power of his or her mind. This idea can be directly projected onto adventure games. In adventure games the symbolism is even more valid, as the player may literally be trapped in a situation. Finding the solution, however, allows the player to go free, and in some ways, gives the player a sense of power over the game.

Being able to understand the lure behind adventure games, the challenge of solving puzzles, makes one wonder why graphics are even necessary. It is possible to understand these games as the modern manifestation of riddle games, but there is something about them that is radically different than riddle games. Riddle games were based on solving puzzles, but adventure games add the idea of storytelling. Adventure games place the player in a new world, and require them to solve intricate puzzles in this world, and part of solving those puzzles is exploring the new world and discovering it’s secrets. The idea of a story, and playing a new character, are all part of the experience of being in a new world. Part of what creates the realism of being in a world is the ability to interact in the world in a natural way. Knowing there is a door in front of you is not quite the same as being able to see a door. In the same way, typing “open door” can not rival the interactive feel of moving a hand to a door and turning


a knob. As a result, graphics allow the player to more deeply immerse themselves in a new world, and changes in interface can make interacting in that world more realistic.

However, if all it takes to make an attractive game is provide a realistic look and a good interface, many games have become popular, while games that look and feel similar have not done as well. One example of this is in relation to the game Myst, published in 1993 by Cyan. Myst used highly detailed static 3D graphics and a point and click interface, and allowed players to interact with the world the game presented, solve puzzles and discover more at whatever pace the player desired. Myst also incorporated a complex story line into the game play, which was developed as the player got deeper into the game, instead of being presented up front as was common with many adventure games. Myst became a huge success, and as a result:

literally hundreds of clones flooded the gaming market. Publishers assumed that Cyan had discovered a magic formula for what people want: "They want gorgeous graphics stitched together by simple levers and sliding blocks." That of course wasn't true ... what people really wanted was Myst, a haunting, lovingly rendered world that begged to be explored and enjoyed.

The games that were produced emulated the look and feel of Myst, but did not incorporate the detailed storyline that made Myst popular. As a result, the majority of the copycat games failed miserably. It was the world, the realism, and the quality of the development of the storyline that produced Myst’s huge success. It is possible to derive from this that fancy graphics and a usable interface are not enough to make a good game. The game must produce a believable world for the player, through the development of the storyline.

Recently the focus in game development has been using new and improved graphics. The technology available to designers continues to improve, and each new game that is produced strives to make use of the improvements. Improved graphical capabilities allow games to be produced that are “more realistic”, and more true to the real world. However, the speed of improvements in graphical capabilities has an immediate corollary to the amount of time it takes a game to become outdated:

30 Dave "Fargo" Kosak, “Play Mysty For Me” GameSpy Hall of Fame
Within a year or two, most graphic games are outdated. They wear their age poorly; we are left to comment about how good a game looked "for its time." When one of a game's selling points is how good its graphics look, it's hard to find the game as compelling when its graphics pale in comparison to its newer brethren.\(^3\)

Within the gaming industry an idea that exists in parallel to the idea that games become visually outdated is the idea that as the visuals of the game become outdated, the game itself becomes outdated. In other words, as soon as a game is no longer at the peak of its visual appeal the game is categorized as no longer enjoyable to play. Though the industry defines “good” games as those that are the most visually appealing at the moment, there are a number of games that remain popular despite being graphically outdated. Games like Tetris will never be outdated, because Tetris is enjoyable to play, even though it was not designed using a 3D graphics engine.\(^3\) Defining the popularity of games by comparing its graphics to the graphics of games produced after it completely disregards the value of the storyline or the playability of a game. Taking into account the quality of the storyline and the structure of the game, good games are games that are enjoyable to play even when the visuals or the interface are no longer at their peak, because of their underlying quality. Good games have a life beyond their time of graphical supremacy. Unfortunately, the selling points of many of the current adventure games are simply the new and improved graphics and interfaces provided by the game. Storylines are often neglected in order to provide the best visual experience. This model of game development that is currently pervading the adventure game market is especially visible in Mask of Eternity. The storyline of the game was less innovative than previous games, and the main selling point of the game was the new improved 3D engine. Instead of developing games with storylines that will captivate audiences even when the graphics of the game are outdated, the industry produces many adventure games that use new and innovative graphics as their selling point. However, the storyline and the underlying quality of a game are the factors that will create a long lasting game that is popular even when the graphics are no longer the best available.

\(<\text{http://www.gamespy.com/halloffame/september00/myst/index3.shtml}>\)

31 Stephen Granade, “How Adventure Games Age” Brass Lantern \(<\text{http://brasslantern.org/editorials/gamesage.html}>\)

The King’s Quest series has run the gamut from basic graphics to more complex graphics, and there are many people who still enjoy playing some of the earlier games in the series. The older King’s Quest games were built around intricate stories that have held peoples’ imaginations and kept them interested even after the visuals were outdated. The newest game, however, does not have the intriguing storyline that kept so many people going back to the older games. The focus of Mask of Eternity was the new improved graphics engine. While many of the older King’s Quest games had innovative graphics for their time, the focus of the games was often not the graphics, but how the new graphics could be used to tell a better story. Unfortunately for Mask of Eternity and many recent graphics adventure games, the focus has been how can better graphics be used to tell a story that has been told before. Putting the focus in game development on new and improved graphics has proved to be detrimental to producing games with good storylines. Graphics have increased the interactive quality of games and allowed the storylines presented by many games to become more real to players, and graphics will continue to improve. However, if the genre of adventure games is going to improve at the same pace as graphics, the focus of game designers needs to move from using better graphics to using better stories.
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