

3D Panorama Movie Using Visual and Audio Effects “Developing and Evaluating”

Zainab Hussain Alnahidh
UOIT/Informatics Institute for Higher
Studies/Baghdad-Iraq

Dr. Karim Q Hussein
Computer Science Dept./ Faculty of Science /
Mustansiriyah University /Baghdad , Iraq

Abstract—3D is an abbreviation for the word three-dimensional. Three dimensional design has become an area essential in this day and age, offering a wider for creators to reflect their ideas environment, and Wide area to creativity used in the work of medicine, engineering, print, ads, games, movies and television business. 3D technology based on broadcast images from different angles, where the eye adds a third dimension between the viewer and the interactive design to deceive as they make it part of the material that it deems more enjoy scenes and interact with the content. The authors tried to design a movie that simulates reality and shows buildings and decoration an immortal human civilization represented in the corridors of the Shrine in the city of Karbala details to focus on the beauty of design of the mosque and documenting part of the Islamic civilization of Iraq. Cinema 4D Software has been used in the implementation of paper which is the 3D graphics program conducted by modeling and texture and animation, lighting and output.

Keywords: 3D animation, Cinema 4D, modeling, animation, Visual and Audio Effects

1. Introduction

Drawing known from most people is drawing with two dimensions, (x) for the width and (y) of the length, but in the past few years, a new concept in which the painter used a third dimension is appeared (z) and this dimension deceive your sight so that the painting look like a real model has a length ,width and height. The representation of two-dimensional does not give a passion for users to imagine things as they are natural condition, and since the man can see things in three dimensions and imaginable and understandable way more depth than two-dimensional representation, so it is an urgent need to develop the language through which the user can see things three dimensions and beyond that to interact with them (Interactive) to see it from all sides in order to achieve the desired goal of visual perception to imagine the process See Figure (1) [1] [2].



Figure (1) Three-dimensional drawing

2. Motivation towards research work

Three-dimensional representation has been added to the viewing enjoyment has no limits, we have used this technology in the cinema, where movies have become display to this wonderful technology, enabling the viewer feeling of great enjoyably when watching the movie characters of the three dimensions.

3. Objective of research

Objective of research could be summarized as followed:

- i. Design a 3D Movie using selected algorithms and techniques to be adaptive with Cinema 4D requirements.
- ii. As Panorama approach many selected cameras to be used as well as enhance the movie with effective effects visual and audio.
- iii. evaluate the final movie according to selected criteria of multimedia technique like compression technique and visual audio issues effects.

4. Tools of Research

- i. Cinema 4D program.
- ii. Adobe photoshpe CS5.
- iii. After Effects CC.

5. Stages of Implementing 3D movies, supported by Case Study

There are a series of stages for the purpose of completing a 3D movie, where it is first configure the main idea of the work and then modeling and the stage of construction to come after coating and texture stage then Animation stage, which is considered one of the most important stages of the

project, the production of the project's success significantly depends upon and then comes lighting stage and then set up of the camera and finally the render stage and the production of the final video. Figure (3-1) [11][12][13].

The next diagram describes the stages of editing the 3D movie.

- | | |
|--------------|----------------------------------|
| 1. Concept | 7. Camera |
| 2. Modeling | 8. Rendering |
| 3. Texturing | 9. Visual ,Music & Sound Effects |
| 4. Rigging | 10.Editing the final movie |
| 5. Animation | |
| 6. Lighting | |

• **The main idea:**

The main idea includes the production of 3Dmovie for the Holy Shrine by searching on the Internet to get many pictures of Shrine and from different angles in order to get the sites, dimensions, sizes and coordinates construction and design properly ,see Figure (2).



Figure (2) Picture of internet

• **Modeling:**

It is made up of a series of points called: vertices that are connected form a mesh. These vertices have all been meticulously placed by a 3D modeler. It's one of the first and most important steps in the 3D pipeline because, it is base to the creation of the assets that all of the other steps in the 3D pipeline will use, see Figure (3).

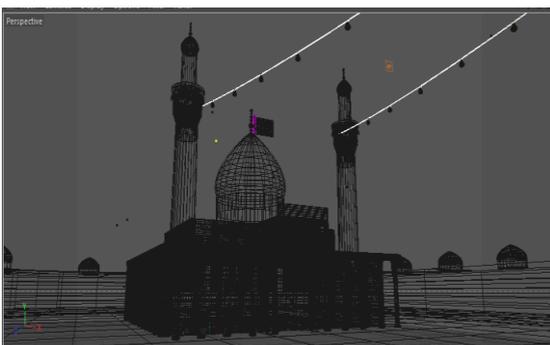


Figure (3) Modeling

• **Texture:**

This step is where you will learn about: materials, shades, textures, maps and all of the ways you can add the physical textures and the color to your models.

In this stage its created the appropriate paint to the sky, walls, doors and floor like wood and carpet colors by appropriate design, see Figure (4).

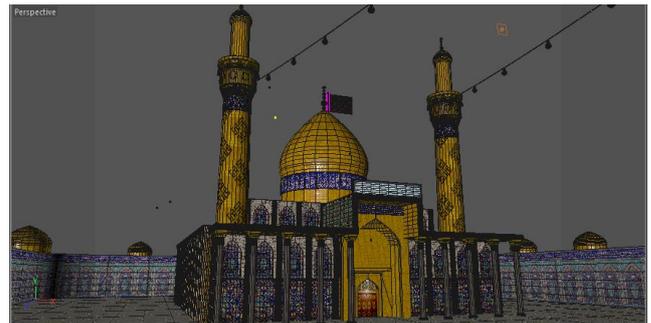


Figure (4) Texture

• **Rigging:**

The models are ready to move, but how do you get them ready to jump across on the screen, Rigging, like all steps of the pipeline, is an important step in making this happen. By creating rigs for your character and object that move, you or an animator can control the movement to create a life ,see Figure (5).

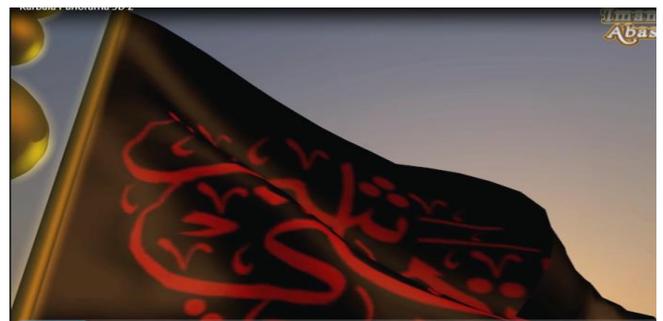


Figure (5) Rigging

• **Animation:**

Animation can mean anything from adding motion to a piston for an engine, all ways to creating complicated character performances that you see at the latest 3D animated movies. By creating a series of poses and playing it over a certain amount of the frames you can create the illusion of movement. It is an animator's function to make the 3D characters and objects come to life in a realistic way, see Figure (6).



Figure (6) Animation

- **Lighting:**

Lighting allow you control everything from where the sun is in a shot to how much glow the light might have that's in the scene. While it seems easy, and it will be with practice, lighting can add that exact feel you want it in the scene, see Figure (7).



Figure (7) Lighting

- **Camera:**

One of the important points that the designer must be taken into consideration in the production of 3D movie and before the imaging process it is the angle of his vision for a scene by using a camera or more according to need and the scene requirements, see Figure (8).

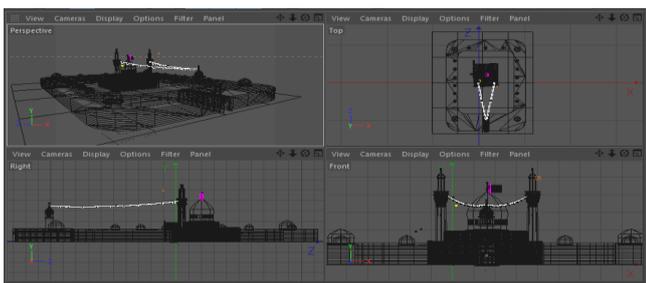


Figure (8) Camera

- **Rendering:**

At this stage, we are exported and directed the scene after the completion of all previous stages properly, see Figure (9).

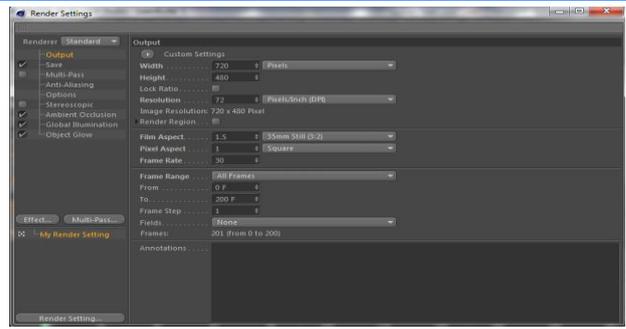


Figure (9) Rendering.

- **Video editor**

Use the following software for editing the final video and audio engineering and add visual and audio effects and cinematic tricks, see Figure (10).



Figure (10) Video editor

6. Evaluating

How often have you caught your breath at the sight of a flowerbed in full bloom? Most likely the gardener has arranged the flowers according to their color for extra vibrancy. Have you ever seen a movie in which a coordinated color scheme helps the film create a world unto itself? With a few knowledge of good color relationships, you can make colors work better for you in your graphics of your movie and other applications.

Color is a very important part of the artwork, which contributes to the imparted beauty and harmony in design. Where the movie works to attract the attention of the viewer to work is not limited part

The sound effects added to the movie one of the main factors in its success as to make the viewer feel enthusiastic about work and interact more to see the artwork as well as it makes the viewer live within the movie.

So we can say that the effects of good color and sound as possible to make the movie more integrated and contribute to its success because it makes it more beautiful and close to reality.

7. CONCLUSIONS

In this project we used cinema 4D design program, which is a graphic three-dimensional software with advanced features to produce Maxon German computer company. And can Cinema 4 D modeling and animation, lighting, texture and directing were in this design work modeling elements and generating elements and drawing equipment and elements of figurative three-dimensional 3D OBJECTS substances that can be entered into the scene without the need for time-wasting her replacement from scratch design. Hired possibilities 4D Cinema program to design an introductory film presents the details of human culture and civilization Islamic is the Shrine, which includes architectural structure and inscriptions beautiful Islamic to be a film as a document identifying seen through which the viewer from around the world on the details of this great Islamic monument to open the window sees the world from which this Islamic civilization endless.

REFERENCES

1. <http://www.mltaka.net/forums/multka379044>
2. <http://vb.elmstba.com/t43763.html>
3. <http://mawdoo3.com/>
4. <http://bloggbh.blogspot.com/2015/01/3d.html>
5. <https://www.paldf.net/forum/showthread.php?t=1117670>
6. <http://ar.itp.net/577337->
7. <http://www.mesterm.co/2014/12/top-5-programmes-3d.html>
8. https://ar.wikipedia.org/wiki/%D8%B3%D9%8A%D9%86%D9%85%D8%A7_%D9%81%D9%88%D8%B1_%D8%AF%D9%8A
9. <http://www.kutub.info/library/book/2106>
10. <http://it-ebooks.directory/book-0240808975.html>
11. <http://www.traidnt.net/vb/traidnt1964556>
12. <http://www.creativebloq.com/3d/how-get-started-cinema-4d-121310072>
13. <http://sofianeav.com/blog/?p=400>
14. <https://cgi.tutsplus.com/articles/step-by-step-how-to-make-an-animated-movie--cg-3257>
15. <http://www.sciencedirect.com/science/book/9780240809533>
16. <http://www.mographcandy.com/blog/2014/3/24/top-10-cinema-4d-modeling-tips-for-beginners>
17. <https://www.amazon.com/Cinema-4D-Artists-Project-Sourcebook/dp/0240814509>
18. <https://www.amazon.com/Cinema-Beginners-Guide-Jen-Rizzo/dp/1849692149>
19. http://http.maxon.net/pub/r11/doc/quickstart_us.pdf
20. http://www.cs.unc.edu/~welch/class/comp006-f03/media/doc/Tutorial_C4D_US.pdf
21. http://www.dl.abipic.com/E-book/91/1/Cinema.4D.R13.Cookbook_abipic.com.pdf
22. <https://books.google.iq/books?id=0bO2BgAAQBAJ>