

# 3D game with Weapons of Kazakh Khanate

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**Abstract**—The name of article speaks for itself - the weapon of the Kazakh Khanate of five main weapons used to create 3d game. The five main arms included: bow and arrow, sword, spear, axe and cudgel. You will be able to choose the form of the main weapons and each weapon depends on the individual map. Historical description about each weapon.

**Keywords**— *computer game; 3D modeling; Kazakh history; war style; traditional weapons.*

## I. INTRODUCTION

Kazakh Khanate in 2015 celebrated 550 years of existence. As for look at history, Kazakh Khanate was established in the middle of the XV th century. Creating of Khanate by Kerey and Zhanybek started under the leadership of Chu and Talas rivers. This event was an important event in the history of the Kazakh people. It unites the vast Kazakh tribes that inhabited the region consolidate, the in bringing together of the Kazakh ethnic territory, Kazakh ancient times to the beginning of the formation of an independent country once played a key role in the final stage of the most important and radical. The most important thing, created the basis of the country at that time, and the continue of our ancestors, the great deals [1-5].

Kazakh Khanate in the 550 anniversary of a new 3D game "Kazakh Khanate weapons." The name speaks for Kazakh Khanate of the five main weapons used to create a 3D game. Currently in the world of computer technology has been the study of 3D graphics and animation. To build a 3D animation and graphic simulation requires a deep knowledge of the program. One of such programs is Cinema4D. This program is the most common in the world. For Cinema4d to go to the movies and television, animation and special effects are used. At the same time go to the Cinema4D widely used by designers and architects in their work. Around the world, thousands of 3D games and Web-page designers to create a 3D graphic elements used in this program. In the past centuries, the most famous living artists of our times lived, where they are would not sending a 3D simulation of the use of the opportunities offered by the program. The first 3D image only a shadow of artists, a prospect and the colors that can be displayed is limited to 2D image. Now they have a camera with a "canvas" of his work inside the 3D space, there is an opportunity to view any angle. After drawing 2D image remains well thought-out. And to work with 3D space it's

different. Textures and light sources for the calculation of time after the date of approval, After being placed in the position of all the objects in their 3D image from any angle in space, will be free to move, therefore, if the project in the format of 3D, he can not enter into a series of modern games. This project about the history of known events, persons, weapons interesting presentation of the game. Because there will be one part of the game scenario, the plot. The same story of the creators of the game is fantasy [6].

## II. METHODOLOGY

"Kazakh Khanate weapons, 3D game". General information about the game let's say Kazakh Khanate of the five main weapons used to create a 3D game. Five weapons into the bow, sword, spear, axe, shokpar. The game will be able to choose their own types of weapons for each of them, and each weapon identity cards, information about weapons. This game is mainly to get acquainted with Kazakh Khanate weapons. You can play the game in front of two: The first and main. The first game of the chosen weapon, is automatically selected from the same weapon depending on the card, user meet before the beginning of the game, five user buttons: Button weapons - the weapons of choicing of surface, maps the surface of the card is selected (weapons will be automatically selected), free travel - if the card not selected, the button through the gun will go for the free card, In addition to these two key, General information about one of the game, the next exit button [7-8].

"Kazakh Khanate weapons" - The purpose of the article and reasons for choosing the user through the game is to introduce Kazakh epos weapons. " Kazakh Khanate in 550 years " 3D games are organized, we recommend these articles.

## KAZAKHS TRADITIONAL WEAPONS

Traditional weapons of war and suits. Since the beginning of the 20th century the ethnic nature of the type of weapon of nomadic Kazakhs is protected. Traditional weapons of the state to make horse war, they is operational and simple. He made the people of Kazakh tribes and tribes formed on the basis of military art and historical reasons,

improving under the influence of neighboring nations. Arms is divided into two large groups:

1. The means of attack – weapon;
2. The Defense of the equipment – shield.

Attack weapons arsenal has five weapons for men (bes karu-zharak). In addition spare weapons: dagger, knife, selebe. Iron clothing that protects the chest of blood vessels, the body of defense, Sharaina, helmet, protecting hands and feet type of additional accessories.

The beginning of the Kazakh steppe, held several days of attacking. Spear tip, in our country and with our own mightiness of preserving the integrity and unity of the country, Kazakh defended the real hero of the people and the history was saved. Five weapons bring lasting peace to the country under the name of one of the brave men hoisted played cleverly, do not know each other. One thing we know, the heroic times, the five men and five weapons are not abandoned (Figure 1).



Fig. 1. Men weapon, five weapons.

**Javelin** - closeup, face-to-face fight the type of weapon used for piercing. Most of the peoples of the world since ancient times used this in war and hunting (Figure 2).



Fig. 2. Javelin.

**Sword** - a type of weapon. Promote the development of the sword cut off the light for the battle on a horse, and was used as a weapon (Figure 3).



Fig. 3. Sword.

**Axes** — as weapons of war. Nomadic peoples began using axes at ancient times. Kazakhs were used this kind of weapons in the 20th century. Head of axes is made by metal, forms are different. The head of the ax — half of the head of ax be like circle based on name of month (Figure 4).



Fig. 4. Axes

**Bow** — weapons for arrow hunting Stone Age, the 20th century, used all the peoples of the world. In the early hunting used in the war (Figure 5).



Fig. 5. Bow.

**Mace iron shokpar.** In ancient it were hunting and war tool. This name comes from the Persian word. Ancient people's compound types of devices for slaughtering in the period of Paleolithic age. Ancient people's compound types of devices for slaughtering in the period of Paleolithic age. His weight is heavy, made from firm wood, head from thick and bronze, then covered with iron (Figure 6).

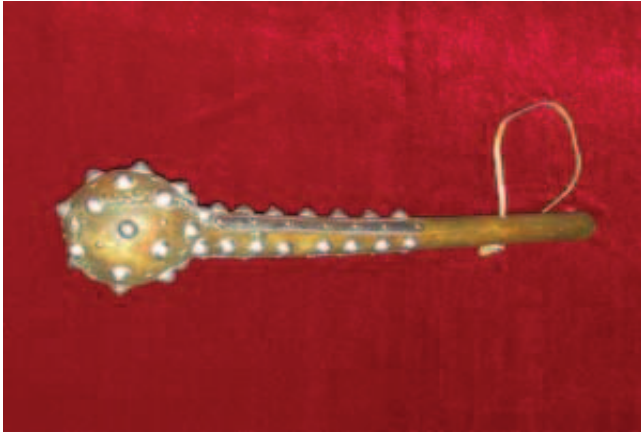


Fig. 6. Mace iron shokpar.

Used programs:

- 3Ds Max program - single program including image modeling, visualization and animation software library.
- Cinema 4D or C4D abbreviated company MAXON is a package for creating three-dimensional graphics and animation.
- Unity - is a tool for the development of two- and three-dimensional applications and games running under Windows, and OS X.
- Adobe Photoshop is a raster graphics editor developed and published by Adobe Systems for Windows and OS X.

#### ALGORITHMS AND FUNCTIONAL

This project should be in the radius of the algorithm. In 1980, W.C. Marlow wrote, "Bow and Arrow Dynamics" that work is better understood (Figure 7).

```
void Update () {
    if (this.stopTime <= Time.time && this.flying) {
        GameObject.Destroy(gameObject);
    }
    if (this.flying) {
        this.rotate();
    } else if (this.anchor != null) {
        this.transform.position = anchor.transform.position;
        this.transform.rotation = anchor.transform.rotation;
    }
}

void OnCollision(Collision collision){
    if (this.flying) {
        this.flying = false;
        this.transform.position = collision.contacts[0].point;
        this.childCollider.isTrigger = true;

        GameObject anchor = new GameObject("arrow anchor");
        anchor.transform.position = this.transform.position;
        anchor.transform.rotation = this.transform.rotation;
        anchor.transform.parent = collision.transform;
        this.anchor = anchor.transform;

        Destroy(rigidbody);
        collision.gameObject.SendMessage("arrowHit", SendMessageOptions.DontRequireReceiver);
    }
}

void rotate(){
    transform.LookAt (transform.position + rigidbody.velocity);
}
```

Fig. 7. Code of game.

This code (Figure 7) the severity of the curved arrow their own weight to block the movement of the flight.

```
void Start () {
    this.stopTime = Time.time + this.flyTime;
}
```

Fig. 8. Code of game.

Figure 8 shall be settled in the fall depending on the arrows time of the timer.

The menus and buttons that will be taken at the beginning of the transition to a different page.

If scene is absent it gives unassembled respond (Figure 9).

Because of special interest to the menu resolution will be made in these proportions: 16:9 (Figure 10).

And the only one with a scenic element associated with keys and codes that are distributed through other (Figure 11).

Codes of all scenes are combined and then chaptered to the certain elements (Figure 11).



```

public string gameScene;
public string gameSceneKilyw;
public string gameSceneNaiza;
public string gameSceneAibalta;
public string gameSceneShokpar;

string MainScene="MainScene";

public GameObject karular;
public GameObject karta;
public GameObject batyrma;
public GameObject baptaular;

public Text tekst;

public void Bastau(){
    if (MainScene == "null") {
        tekst.text = "Құрастырылмаған!";
    }
    else {
        Application.LoadLevel (MainScene);
    }
}

public void SceneNameChanged(int sceneIndex){
    switch (sceneIndex) {
        case 1: tekst.text = "Садақ ойыны"; MainScene = gameScene; break;
        case 2: tekst.text = "Қанжар ойыны"; MainScene = "null"; break;
        case 3: tekst.text = "Атпа Найза ойыны"; MainScene = gameSceneNaiza; break;
        case 4: tekst.text = "Дйбалта ойыны"; MainScene = "null"; break;
        case 5: tekst.text = "Шокпар ойыны"; MainScene = "null"; break;
    }
}

```

Fig. 9. Code of game.



Fig. 10. Menu.

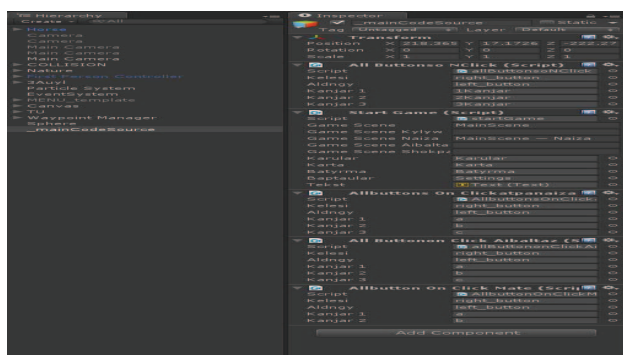


Fig. 11. Keys and codes.

Unity CONSOLE page of the program, or after the code's errors on this page or other notice from the loggers (Figure 12).

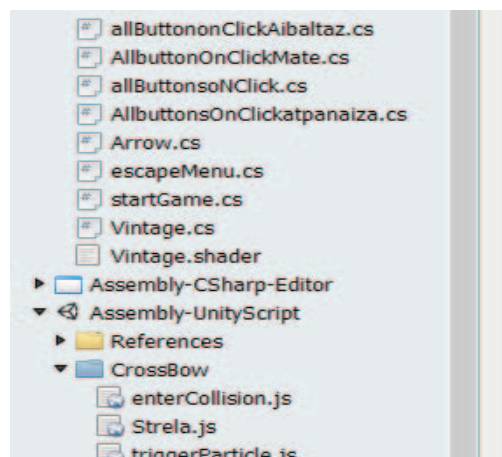


Fig. 12. Unity console.

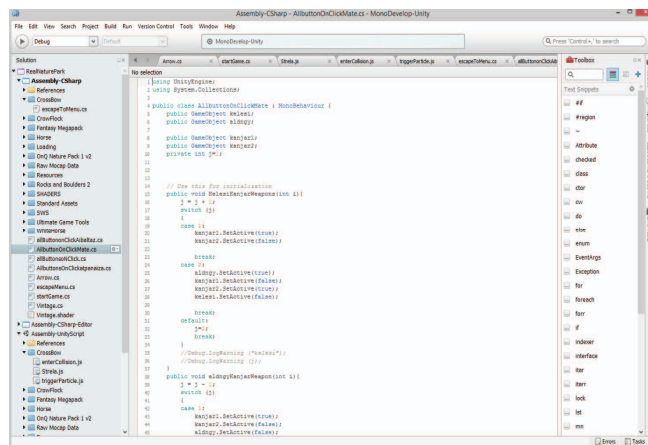


Fig. 12. Code in Unity program.

Monodevelop is the editor of Unity program it is simple used and they are tightly bounded, in this editor whole code is written, it means that in all languages (Figure 12).

### III. CONCLUSION

Each country in order to increase its economic uses new production,tries to invent new strategies. People from all over the country, suggest new ideas.

This project will contribute to the economical development idea of the country. As we know, in our country tourism is well developed.

If we compare us to our neighbor Turkey, in that country tourism is developed at very high level.

60% of economics is made upon tourism. And in our country, such count of tourism and historic places is very much.

Anyway, as we said, there is two problems that burden tourism development:

1. Marketing(no adverts);
2. No interest.

Of course, these two problems are tightly bounded to each other. Because when advert has been making, people's interest is seen.

The main idea of the article, a local tourism official site or sites, in multiple languages, the 3D model of the installation of seats.

In other words, to create an online virtual tour. This tour actually increase the interest of people. An invitation to tourists.

Using Unity 3D software, this model in my opinion is suitable for the construction of processing and effective.

In addition, to increase the interest of young people to make 3D simulation games.

The development of this sector in Kazakhstan, Kazakh games, to increase the number of games made for.

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