

**DESIGN AND PRODUCTION OF 3D ASSET “MONSTER AIR” IN THE
FILM “BATTLE PARK”**

NON-REGULAR THESIS

*Submitted as one of the requirements to achieve a Bachelor Degree in
Information Technology Study Program*



by

GRACIA CECILIA OLGA

22.60.0146

to

**COMPUTER SCIENCE FACULTY
AMIKOM YOGYAKARTA UNIVERSITY
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**HALAMAN PERSETUJUAN
SKRIPSI NON REGULER**

**PERANCANGAN DAN PEMBUATAN ASET 3D “MONSTER AIR” PADA
FILM “BATTLE PARK”**

yang disusun dan diajukan oleh

GRACIA CECILIA OLGA

22.60.0146

telah disetujui oleh Dosen Pembimbing Skripsi
pada tanggal 26 Januari 2026

Dosen Pembimbing


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Yogyakarta, 26 Januari 2026



Gracia Cecilia Olga

FOREWORD

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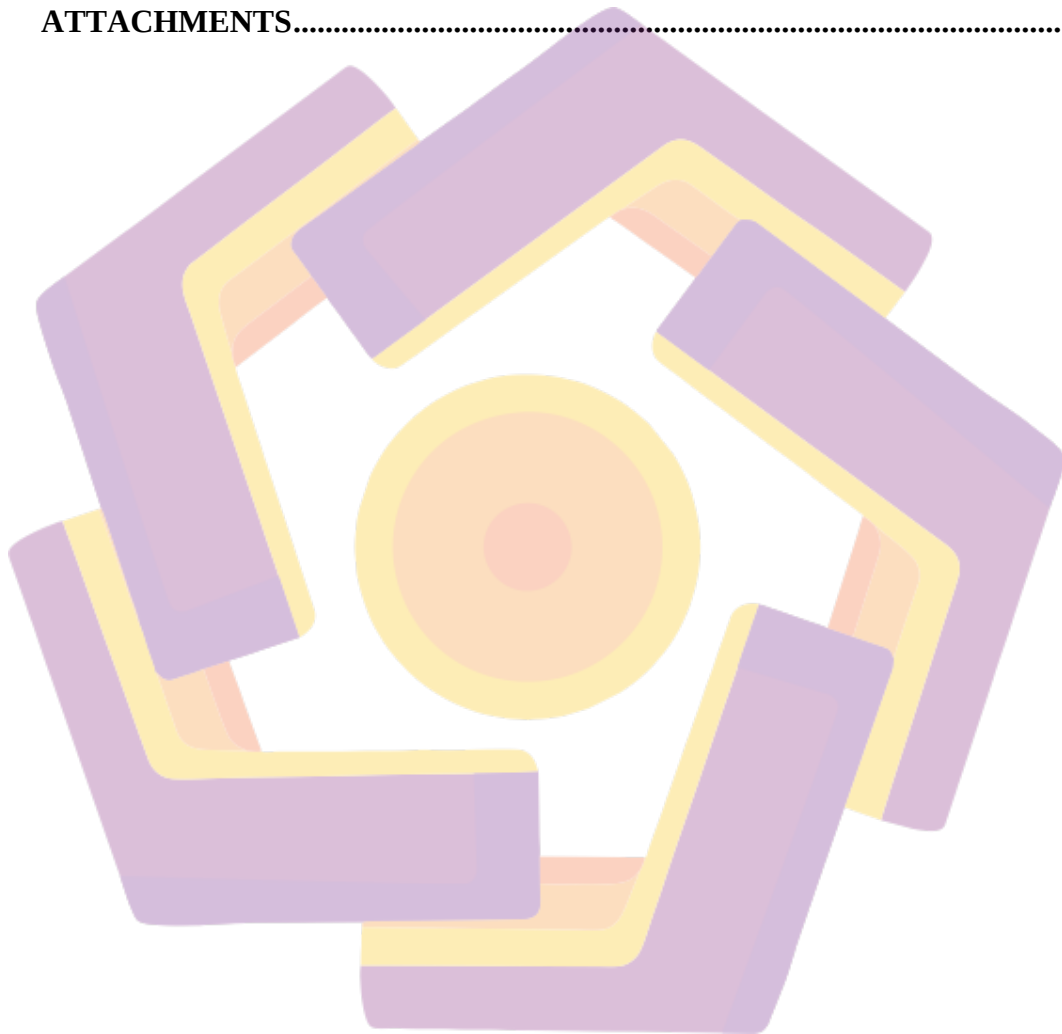
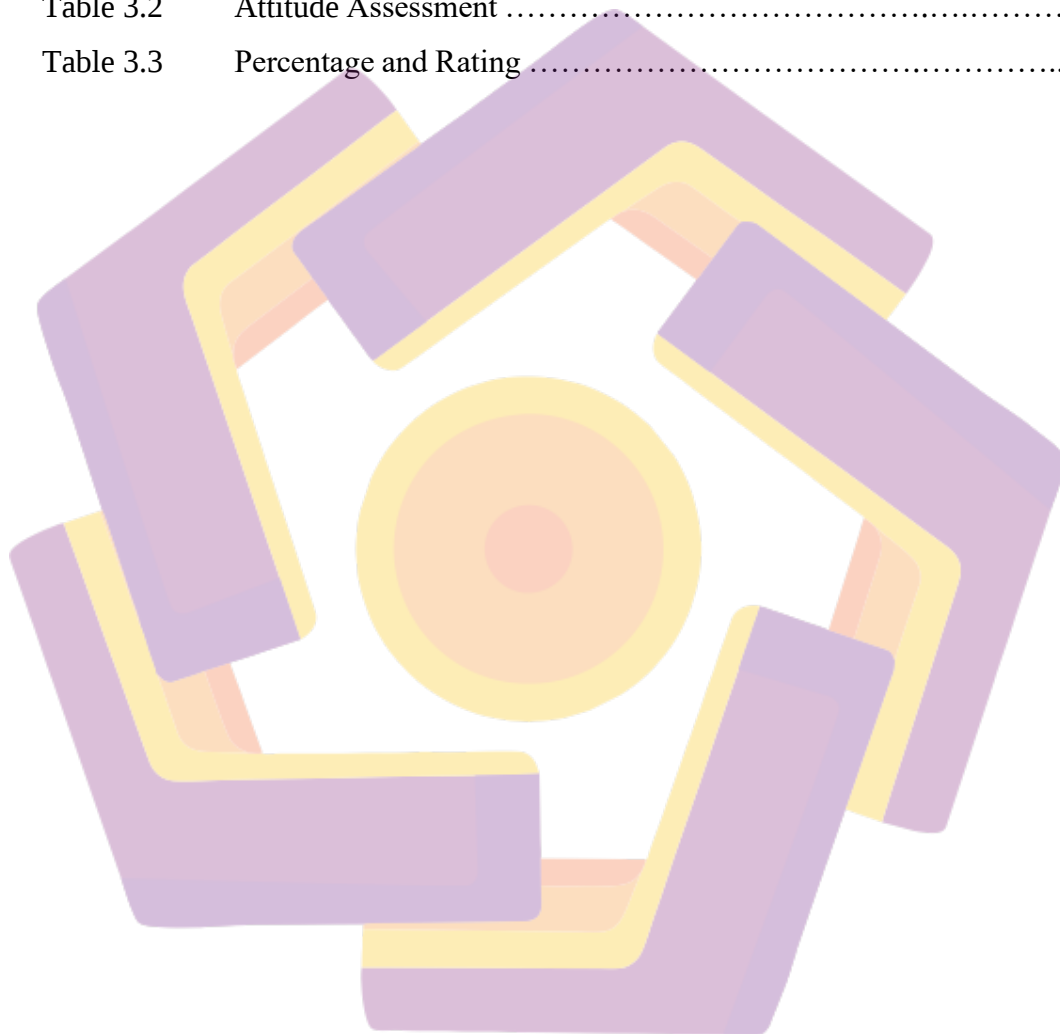


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INTISARI

Dalam pembuatan film atau game modern, teknik animasi 3D sering digunakan untuk membentuk visual yang sulit atau tidak bisa diwujudkan di dunia nyata, contohnya makhluk fantasi atau monster. Salah satu tahap produksi dalam proses pembuatan animasi 3D adalah *modelling* yang mengikuti sebuah konsep 2D. 3D *modelling* sendiri merupakan tahap pembuatan bentuk, tekstur dan ukuran dalam ruang digital yang memiliki 3 axis; x, y dan z.

Penelitian berbasis praktik ini mendokumentasikan alur pembuatan asset “Monster Air” dalam film “Battle Park” dari CV PARAMA, dari konsep 2D yang sudah tersedia menjadi aset 3D bertekstur dan memiliki rig. “Monster Air” akan ditekstur sedemikian rupa sehingga terlihat seperti *style* animasi 2D yang disertai dengan simulasi air.

Alur kerja diawali dengan observasi CGI 3D berbasis air sebagai acuan untuk membangun landasan visual. Hal ini dilanjutkan dengan penelitian untuk memahami anatomi karakter dan biomekanik untuk tujuan tali-temali. Fase produksi 3D dimulai dengan pemahatan di ZBrush dan retopologi di Blender dengan panduan seni konsep, diikuti dengan tali-temali dan pembuatan tekstur resolusi tinggi di Substance Painter. Diakhiri dengan pembuatan simulasi air untuk tambahan VFX. Beberapa tes gerak dan tes rendering juga dilakukan untuk memastikan model dapat dianimasikan sesuai kebutuhan.

Kata kunci: ZBrush, Blender, Substance Painter, modelling karakter, simulasi 3D.

ABSTRACT

In modern film and game production, 3D animation techniques are often used to create visuals that are difficult to create in the real world, such as fantasy creatures or monsters. One of the production stages in the 3D animation process is modelling, which follows a concept. 3D modelling itself is the process of creating shapes, textures, and dimensions in a digital space with three axes: x, y, and z.

This practice-based research documents the asset creation process for CV PARAMA's "Monster Air" in the film "Battle Park," from existing 2D concepts to textured and rigged 3D assets. "Monster Air" will be textured to resemble a 2D animation look.

The workflow begins with observation of water-based 3D CGI as a reference for establishing a visual foundation. This is followed by research to understand the character's anatomy and biomechanics for rigging purposes. The 3D production phase begins with sculpting in ZBrush and retopology in Blender by the concept art guide, followed by rigging and high-resolution texturing in Substance Painter. Ended with creating a water simulation for additional VFX. Several motion tests and rendering tests also carried out to ensure the model can be animated as required.

Keyword: ZBrush, Blender, Substance Painter, character modelling, 3D simulation.