INTRODUCTION

VALUES OF CULTURAL HERITAGE

MULTIDIMENSIONAL KNOWLEDGE:
- Art and architectural
- Visual language
- Cultural
- Religious

RAISING PUBLIC AWARENESS

PRESERVATION OF CULTURAL HERITAGE
“The act of spreading or broadcasting information or knowledge to public without direct feedback”
(Mediated) Communication Problem

TRANSMITTED INFORMATION
• Clear
• Easily understood
• Interesting

Information Design
The practice of presenting information in a way that makes it most accessible and easily understood by users. Information design is targeted to specific audiences in specific situations to meet defined objectives.

- Specific Target Audiences
- Defined Objectives
Five steps of Information Design (Mazza, 2009):
1. Define the problem
2. Define the data to be represented
3. Define the dimensions required to represent the data
4. Define the structures of the data
5. Define the interaction required from the visualization
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Related to:
- Objectives
- Target Audiences
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   - Auditory
   - Graphical
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DIGITAL ARCHIVE OF CULTURAL HERITAGE

Defined Problem

Requirements of Graphic Representation

How to create graphic representation?
**Image Capturing**
- Photography
- 2D Scanning

**Computer Graphic**
- Modelling / reconstruction
- Computer vision
  - 3D Scanning
  - Photogrammetry

**Graphic Representation**
- Digital Image (Bitmap)
- Digital Model (Vector)
VECTOR GRAPHIC
Digital graphic created through a sequence of commands or mathematical statements that place lines and shapes in a given **two-dimensional or three-dimensional** space.

BITMAP GRAPHIC
Digital graphic composed of many tiny parts, called pixels, which are often has many different colours.

![enlarged bitmap ("raster")](image1)
![enlarged vector](image2)
VECTOR GRAPHIC

- 2-dimensional/ 3-dimensional
- **Limited details, texture & color**
- High alterability & editability
  - Resolution independent

BITMAP GRAPHIC

- 2-dimensional image
- Rich of details, texture & color
- **Limited editability**
- **Resolution dependent**
Digital Representation by Vector Graphic Reconstruction
Design Steps

- Problem Definition
- Design Requirement
- Reference Image
- Visual Features Analysis
  - Interpretation
- Image Synthesis
- Digital Reconstruction
- Evaluation

Secondary data
CASE STUDY

PROBLEM DEFINITION

Permasalahan Kondisi Eksisting Relief
- Relief yang telah rusak
- Beberapa bagian tidak lagi dapat terlihat jelas

Permasalahan Penyampaian Konten Relief
- Relief ini merupakan bentuk narasi visual yang menggunakan Bahasa rupa tradisi
- Terdapat cara baca yang spesifik
- Ada urutan waktu kejadian
DESIGN REQUIREMENT

- Dibutuhkan satu desain visualisasi yang dapat memperlihatkan wujud relief secara utuh dan jelas

- Dibutuhkan penyampaian cara baca relief melalui visualisasi yang mudah dimengerti (berbasis waktu: animasi)
CASE STUDY

VISUAL FEATURES ANALYSIS

- Struktur dan proporsi tubuh
- Struktur wajah
- Ekspresi wajah
- Gestur
- Tangan
- Detail Atribut Mahkota, Pakaian, dsb

INTERPRETATION

Mebutuhkan Referensi lain, (Data pembanding)
Design Steps

Problem Definition

Design Requirement

Reference Image

Visual Features Analysis

Interpretation

Image Synthesis

Digital Reconstruction

Evaluation

Secondary data
CASE STUDY

IMAGE SYNTHESIS
- 2D Vector Tracing
- 3D Re-Modelling

Implementasi:
- Gambar Ilustrasi
- Infografis
- Animasi
- dll