

Designing a Fused Glass Face

A Practical Tutorial



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Table of Contents

Designing a Fused Glass Face — A Practical Tutorial

Foreword.....	I
About the Artist	II
The Model & Method	1
Using a Model to Deconstruct Facial Features	2
Designing a Glass Face — Intro & Notes to the Artist	3
Glass Selection Guide (Color & Thickness).....	4
Character Lines (Guidance & Cutting Rules).....	5
Important — Please Read Before Beginning	6
Safety First	7
Essential Tools List (Part 1)	8
Essential Tools List (Part 2)	9
Essential Tools — Visuals (Part 1)	10
Essential Tools — Visuals (Part 2)	11
Understanding the Methods.....	12
Photograph Selection & Pattern Making — Steps 1–2.....	13
Creating Working Patterns — Examples.....	14
Photograph Selection & Pattern Making — Reference	15
Guide to Layers & Sections — Layers 1–2.....	16
Guide to Layers & Sections — Layers 3 & 3A.....	17
Guide to Layers & Sections — Layers 4 & 5	18
Defining Base Layer 1 — Step 3	19
Cutting Out Base Layer 1 — Step 4	20

Designing a Glass Face

The Model & Method

For the purpose of teaching this technique, I am using a single photographic reference to demonstrate how facial features can be translated into layered, contour-fired glass.

The focus of this chapter is **process**—how to interpret depth, simplify form, and make design decisions that work within the physical limitations of glass and kiln-firing.

The model used throughout this demonstration is Barbara LemMon, the mother of a close friend. Her expressive features, warmth, and clarity of form made her an ideal reference for illustrating this method.

Barbara passed away in 2021 before this piece was completed. That loss reinforced my determination to approach this work with care, patience, and intention—values that are essential to both portraiture and teaching.

This chapter is dedicated to honoring her presence through thoughtful craftsmanship, while offering a repeatable technique that can be applied to any subject.



Barbara LemMon October 30, 1930 – January 26, 2021

Designing a Glass Face

Using a Model to Deconstruct Facial Features

This technique relies on working from a single photographic model to visually deconstruct facial features into simplified, buildable forms suitable for layered, contour-fired glass.

Rather than aiming for photographic likeness, the goal is to identify **dominant shapes, directional contours, and areas of visual weight**. Multiple reference images of the same model are used throughout this chapter to demonstrate how individual features can be isolated, reduced, and reinterpreted.

The images that follow are intended to be studied sequentially. Each stage builds upon the previous one, moving from observation to abstraction, and finally to physical construction in glass.

Designing a Glass Face

Essential Tools List

As an experienced fuser you know the importance of having good equipment and taking the appropriate safety measures. These pages are lists of “must haves” for a studio and especially for doing this project.

Everyone has their choice of the different manufacturers of tools and equipment they use and this page is just a general suggestion on the basic types of tools needed in order to finalize your project. I am not making any recommendations as to the types of tools or other items listed. These are just ones that I personally use in my studio.

Tools:

- Glass Kiln
- Glass Saw with Slicer Blade (my personal choice)
- Glass Grinder
- Glass Cutter
- Running Pliers
- Grozer/Breaker Pliers
- Tile Nippers
- Alcohol and Spray bottle
- Cleaning Rags
- Cleaning Pad
- Paper Towels
- Q-Tips
- Brushes
- Tweezers (this comes in handy when placing small pieces)
- Glass Marking Pens and Pencils
- Glass Grid System
- Glue

Designing a Glass Face

Designing a Glass Face Intro

NOTES TO THE ARTIST

Choose **one reference photo** that truly captures the personality of your subject—expression, attitude, and presence. A strong model photo makes every step that follows easier, because you'll be designing from clear, readable shapes rather than chasing photographic detail.

Firing Notes

This process depends on maintaining **depth and edge definition**, so kiln testing is not optional.

- **Avoid full fusing**, even for base assemblies. Full fuse temperatures can cause the glass to spread past your pattern and flatten the dimensional character of the face.
- Determine the temperature where your kiln will **contour fuse cleanly**—typically **slightly above a tack fuse**.
- The goal is a fire that **bonds the layers** and **softly rounds edges**, without melting the forms into one flat surface.

Test, test, test.

Accurate testing is what allows the face to retain depth, separation, and expression.

Designing a Glass Face

Photograph Selection & Pattern Making

Reference

From this point forward, and for the remainder of this tutorial, I will be referring to the **individual layers of glass** that need to be cut, along with the specific measurements required for each layer.

By layering the glass, you will create depth and dimension, giving the finished piece a three-dimensional effect. To achieve this, the facial features must be carefully **dissected and interpreted** for each layer, with every layer contributing to the overall form of the face.

For each layer, an accompanying example is provided to demonstrate how that layer is broken down. Each section is outlined in black, along with the character lines specific to that layer.

It is important to follow the **layering sequence** as presented in this tutorial. Refer to the example images frequently as you move through each step.

The next **three pages** serve as **Reference Guides for Layering and Sectioning** the facial features. Full explanations and details for each layer and section are provided.

Designing a Glass Face

Creating Working Patterns

Pattern Examples

The image below shows how a single photograph can be resized and printed to create working patterns for a fused glass face.

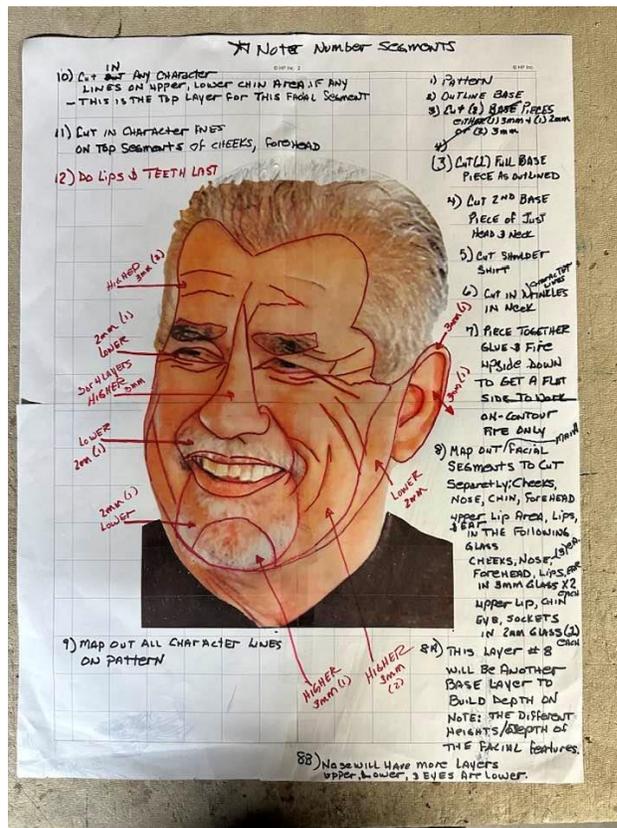
Reference & Markup Pattern

This example shows a resized photograph printed across multiple sheets of **8½ × 11-inch paper**. The image prints centered on each page, leaving ample space around the face for note-taking, sketching, and marking section lines.

This pattern is used as the **markup pattern**, where facial features, character lines, and section boundaries are drawn directly onto the photograph.

Why two patterns are used

Using separate patterns allows you to freely mark, revise, and adjust facial sections on one copy while keeping the second copy clean for layout and assembly.



Designing a Glass Face

Guide to Layers & Sections

The following pages are **visual reference guides only**.

They are provided to help you understand how facial features are broken down into layers and sections throughout this tutorial. These guides are not meant to be followed as step-by-step instructions on their own.

As you move through the upcoming steps, refer back to these pages often. Their purpose is to give you a visual roadmap that will become clearer as each layer and section is explained in detail.



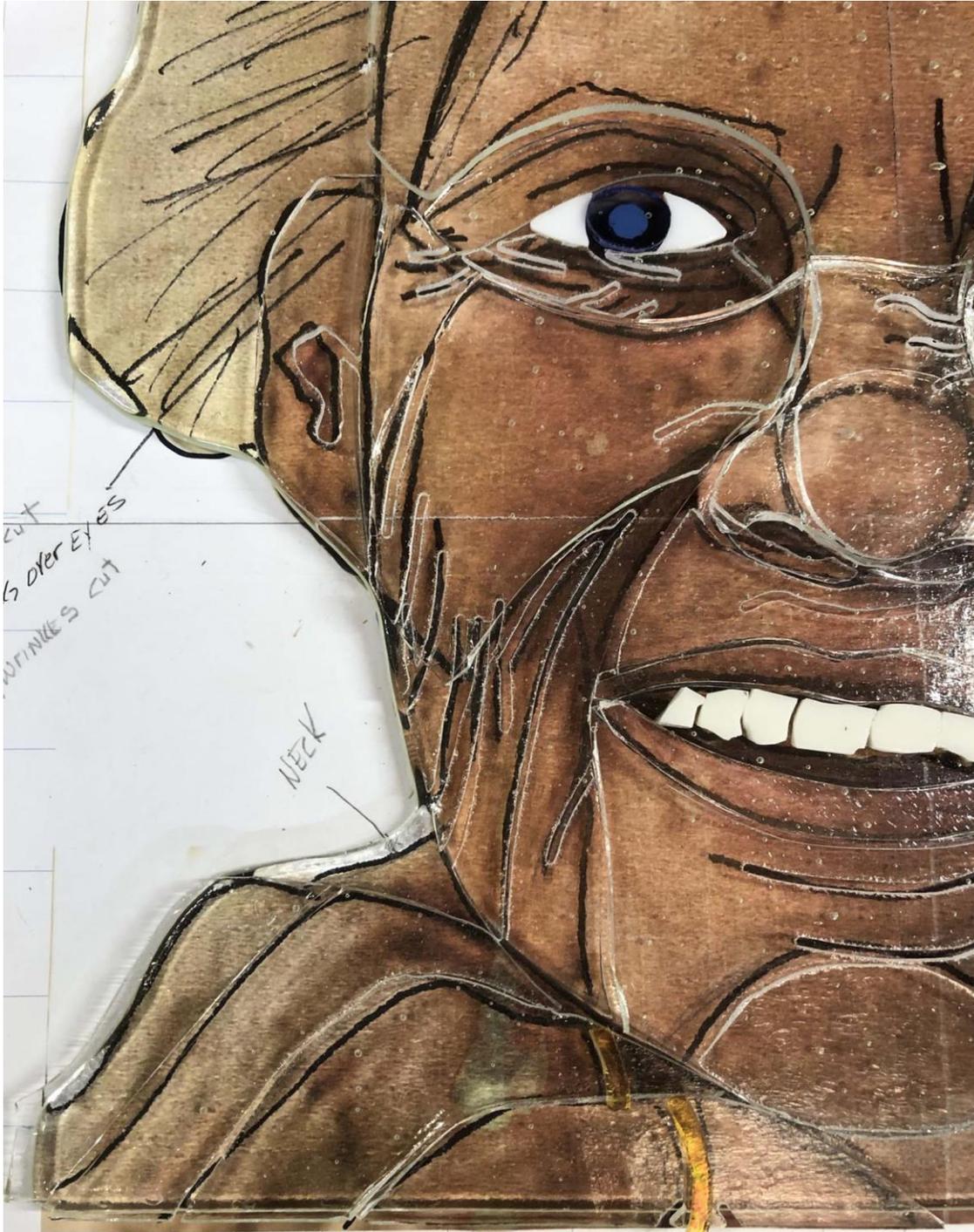
Layer 1 Base



Layer 2 Base

Designing a Glass Face

Example of Cut Facial Sections Right Side



This close-up shows how character lines and layered sections work together after cutting and fitting