Prosthetic Making & Advanced Moulage

Doubletree Culver City
August 7, 2015  •  0900 – 1300
Welcome!

I am Lillie Falco, MST’s CTO & Artistic Director
Today’s agenda

Introduction
Review class objectives

Prosthetic / Moulage Overview
Basics about moulage prosthetics
(materials, makeup and processes)

Exercise 1
Create small freehand and pre-made prosthetics from start to finish using silicones

Exercise 2
Create small props from simple molding techniques

Exercise 3
Fabricate and apply large advanced moulage effects using makeup and reusable prosthetics

Summary and Q&A
Use silicones to create custom props for Moulage scenarios
moulage
(noun \mʊ-ˈlæzh\)
the art of applying mock injuries for the purpose of simulating real-world experience for emergency medical training
Today’s objectives

Create small freehand prosthetics from start to finish using silicones
Create small, pre-made prosthetics from start to finish using sculpting, custom molding & prosthetic fabrication in a variety of materials
Create small props using simple molding techniques
Fabricate large-scale Moulage effects using freehand techniques & products
Apply advanced-level Moulage makeup and fabricate custom effects using re-useable prosthetics
Overview: special FX materials

SILICONE

GELATIN

LATEX
Today’s focus: silicone

SILICONE

Popular medium for Hollywood special FX and realistic medical moulage
The pros & cons of silicone

- High fidelity, reproduces fine details
- Room Temperature Vulcanizing (RTV)
- Light viscosity and good flowability
- Excellent release properties
- Low shrinkage and no deformation
- High elasticity and tear strength
- High temperature resistance (400°F)
- Safe and non-toxic

- Expensive – especially platinum-cure
- Sensitive to some substances
  - e.g. sulfur inhibits cure
- Longer cure time than urethanes
- Must be mixed accurately
- Thickness may require vacuum degassing to minimize bubble entrapment
Two primary types of silicone

TIN-CURE SILICONE

- Common (e.g. bathroom caulking) and relatively inexpensive
- Pourable or brushable
- Not suitable for use on skin

PLATINUM-CURE SILICONE

- More expensive, but preferred for special FX and prosthetics
- Impressive physical properties
  - Extremely low shrinkage, long shelf life
- Certain types are skin-safe
- Prone to inhibition
  - Highly sensitive to latex, sulfur and certain other materials
Matching applications to types

TIN-CURE SILICONE
- Short-term, low-cost molds
- Casual, hobby-use
- High-volume production
- Prototyping

PLATINUM-CURE SILICONE
- Long-term, durable molds
- Professional prosthetics, Special FX
- High-fidelity products
- Medical training devices
Three types of prosthetics

CUSTOM

PRE-MADE

LIFE CAST
Small Sample of Pre-Made Effects
Basics of prosthetic application

Plan in advance
  Consult sketches/pictures
  Note material work times; don’t mix more than you can use

Proper skin preparation

Smooth and even application

Adhesives are typically translucent
  Use pigments carefully, don’t overdo it

Small, well-blended seam lines and tapered edges (right)
Today we’ll use Dragon Skin FX Pro

Platinum-cured – cures at room temp (73°F) with negligible shrinkage

Can be colored with silicone pigments or painted after cure

Certified to ISO 10993-10 tests for skin irritation and sensitization

1A:1B mix ratio

Work Time: 10-12 minutes

Cure Time: 40 minutes
We’ll also use 3rd Degree

Platinum-cured silicone product
Useful as adhesive, but also moldable
Skin-safe
Can be thinned with 99% alcohol
1A:1B mix ratio
Work Time: <5 minutes
   (so work quickly, mix only what you need!)
Alcohol-Activated Makeup

Polymer based that easily dissolves in 99% alcohol, but not water

Hypoallergenic

Useful for blending skin tones, disguising errors, adding effects and enhancing realism of prosthetics

Apply using stipple sponge or brush

If used/stored properly, will last years
Two types of simulated blood

THICK BLOOD

VENOUS BLOOD
Other supplies in today’s toolkit

Blocks of clay
Silicone pigments
Mixing palette
Small mixing cups
Plastic knives
Orange stipple sponges
Small hair dryer

Mixed shrapnel
Nitrile gloves
91% alcohol
99% alcohol
Plast
Misc. cleanup supplies
Enough talk.
(time to get those hands dirty)
Exercise 1

Create small freehand and pre-made prosthetics using silicones
Exercise 2

Create small props from simple molding techniques
Exercise 3

Fabricate and apply large advanced moulage effects using makeup and reusable prosthetics