

Scratch Building Scale Figures

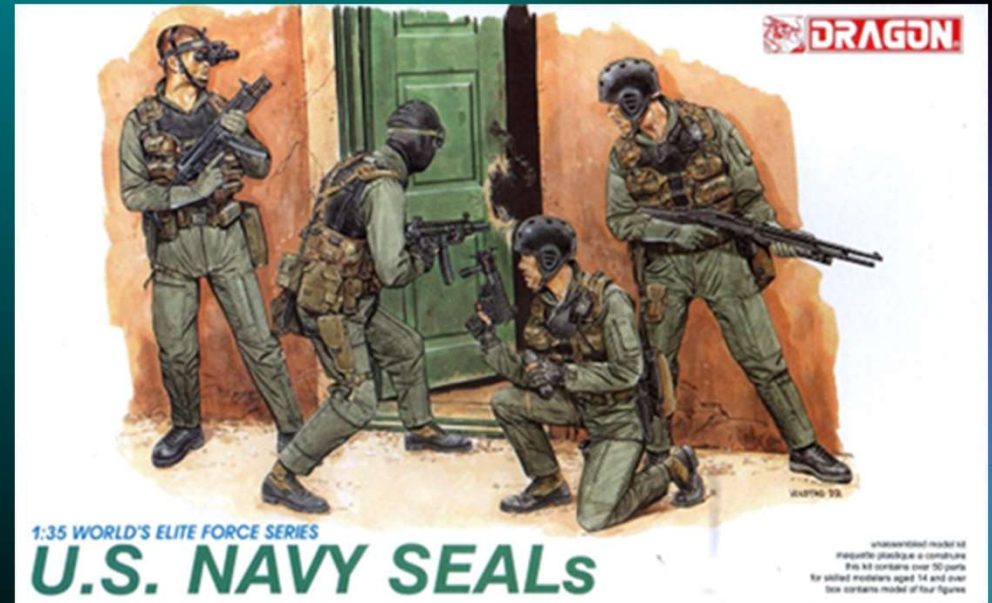
ANTHONY WONG

APRIL 2024



The Journey Begins Here

- DML 1/35 US Navy Seals released in 1992
- Box art by Ron Volstad

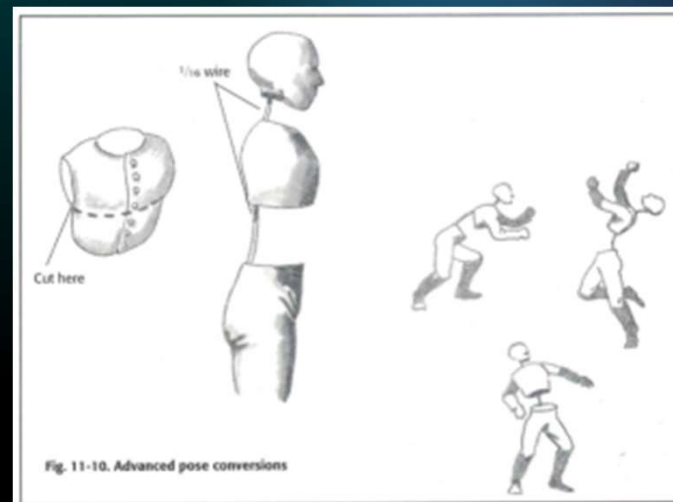
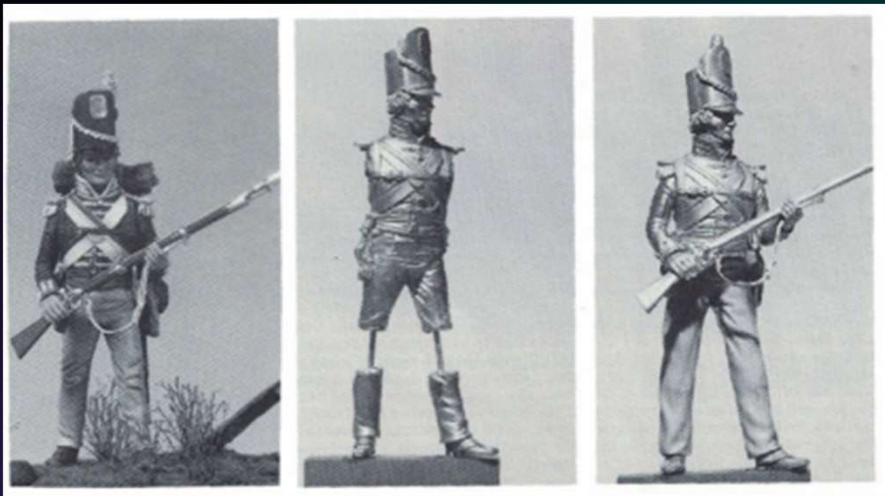


Shortcomings of Stock Figures

- Awkward Pose and incorrect proportion
- Lack details
- Not the desired outfit
- Accuracy issue
- Availability
- Pricey

Figure Conversion

- Remove/enhance existing details
- Adjust limb positions and heights
- Correct/recreate new details



Source: Paine, "Building and Painting Scale Figures, 1993, ISBN: 0-89024-069-8

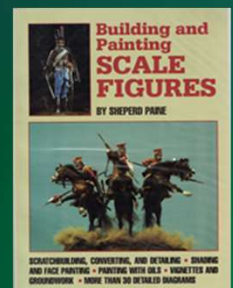


Figure Conversion



Source: Yoshioka, "Diorama the Perfection", 2011, Dai Nippon Painting 大日本繪畫

Scratch-building Scale Figures

[1] Tools and Materials

[2] Preparations

[3] The Process 1-2-3

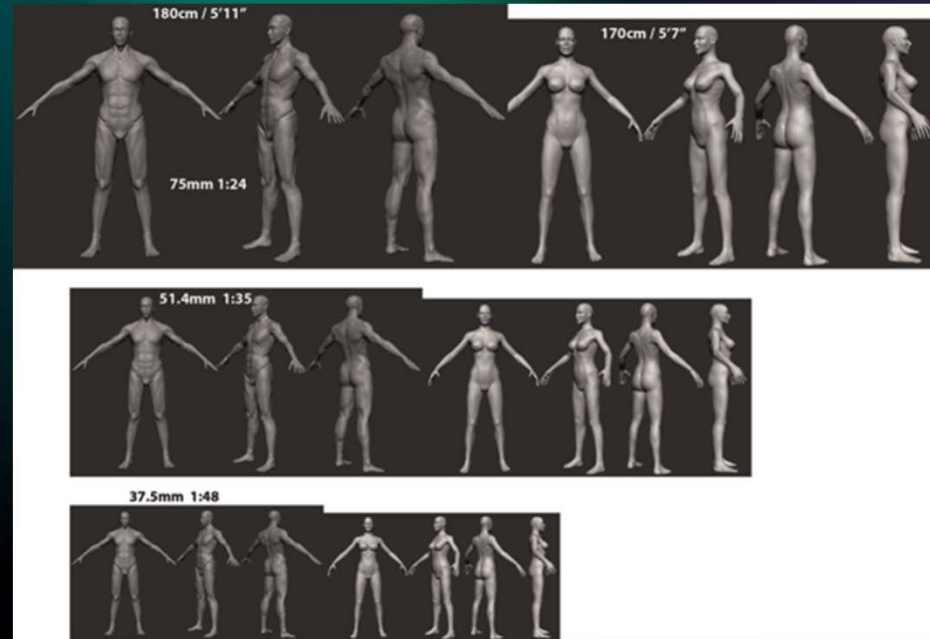
[4] Demo – Put everything into practice

[5] Thought Sharing

Scratch-building Scale Figures

[1] Tools and Medium

Scale Reference Diagram



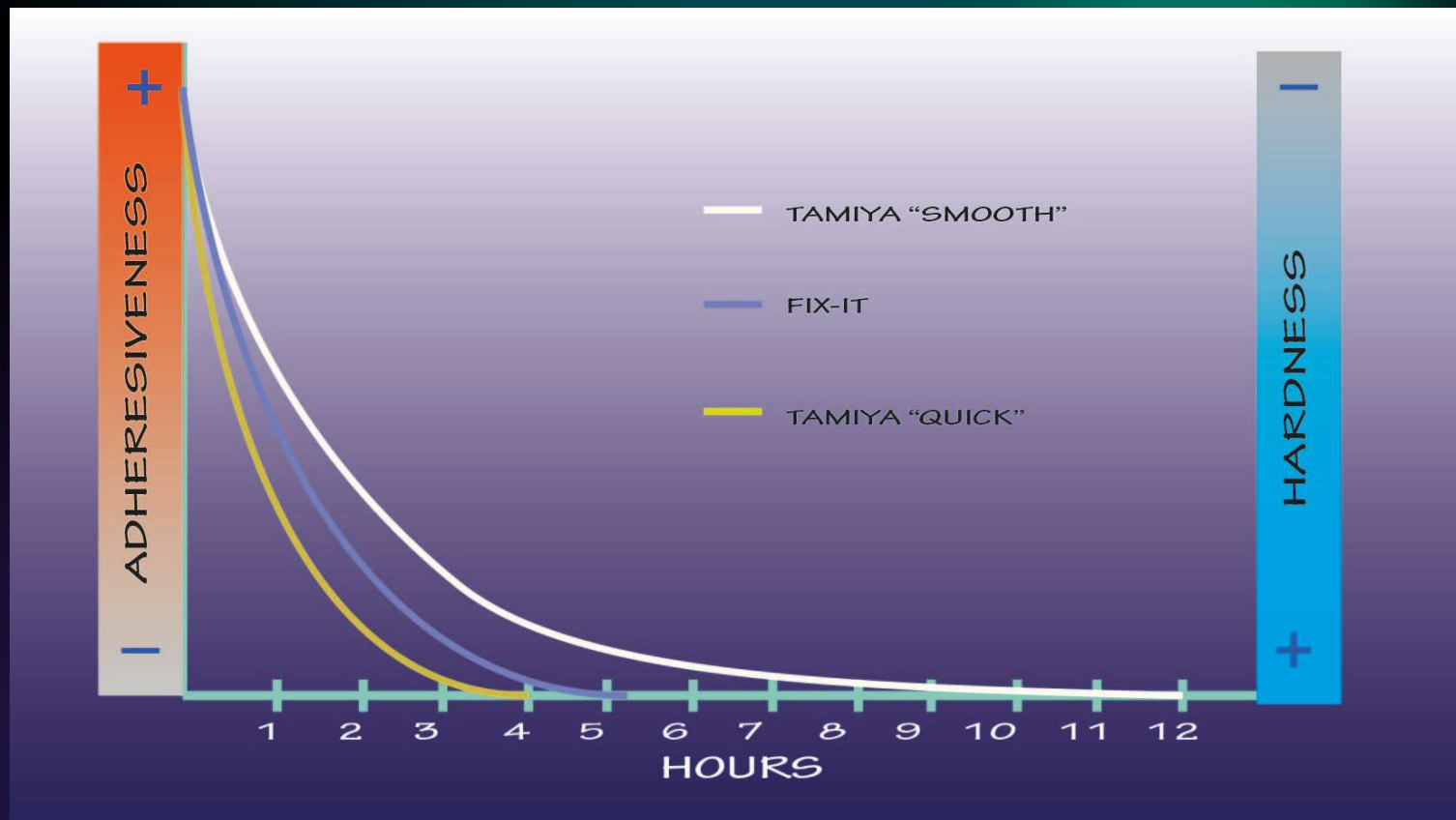
Scratch-building Scale Figures

Be familiar with your mediums



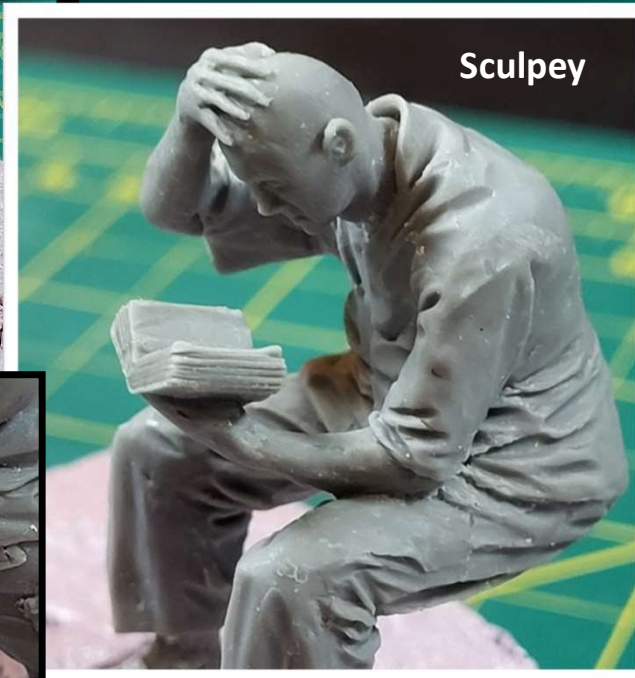
Scratch-building Scale Figures

Two critical Attributes of Epoxy Putty: Adhesiveness and Hardness



Scratch-building Scale Figures

Super Sculpey vs Epoxy Putty



Project: "Errand Boy" 54mm



	Epoxy Putty	Sculpey
Curing	Curing agent	Oven bake
Curing time	4 – 12hr	12 min. @ 120C
Ductile	Pliable	Pliable
Brittle	Scratch resistant	Shattered if scribed hard
Hardness	Hi-density	Fair
Adhesiveness	Superior	Fair
Heat resistant	Low melting	Hi
Smoothing	Water	Water
Paint over	Yes	Yes
Polish & Drill	Yes	Yes
Overlaying	Yes	Yes



Project: "Duke 6 in position" 1:35

Scratch-building Scale Figures

[2] Preparation

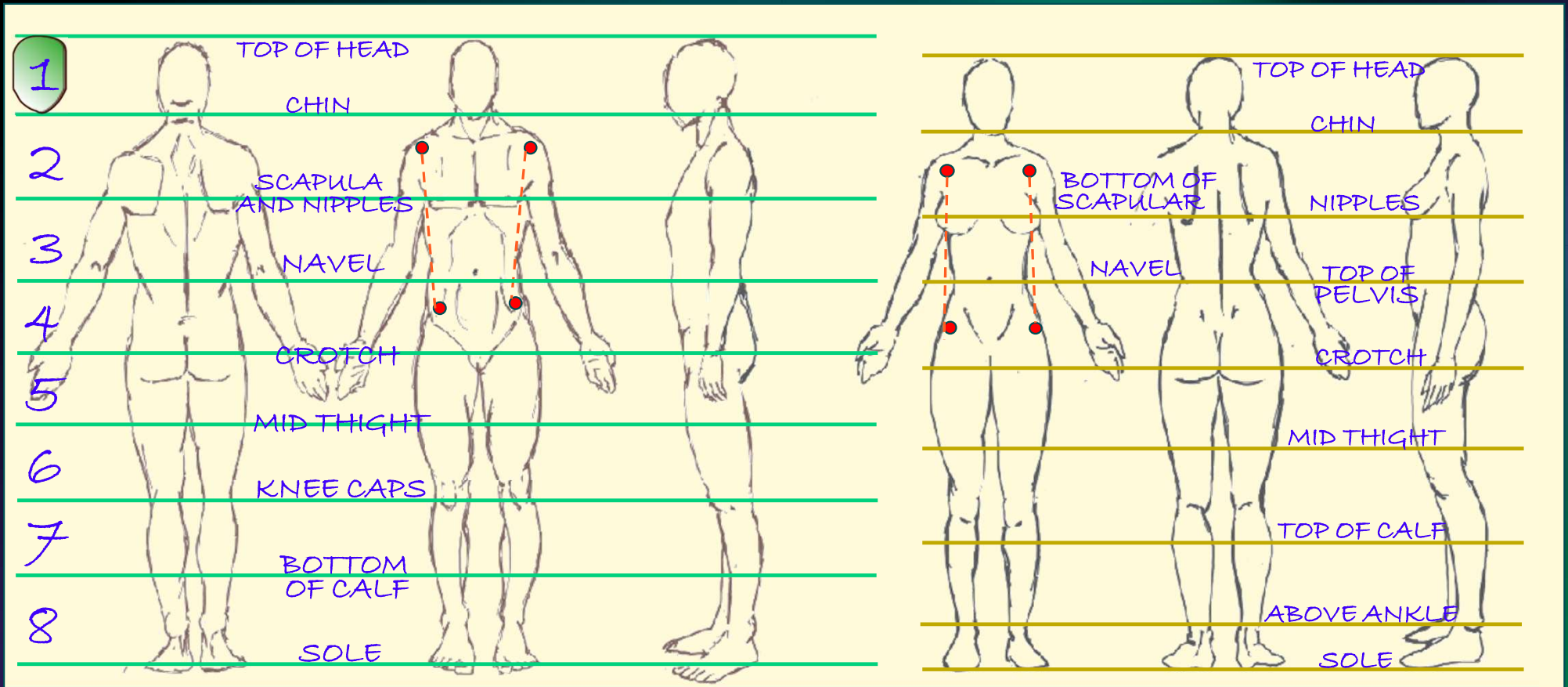
2.1 Research

2.2 Observe

2.3 Study

Scratch-building Scale Figures

Research: General Proportion and Basic Anatomy



Scratch-building Scale Figures

Research: General Proportion and Basic Anatomy



The "S" curve



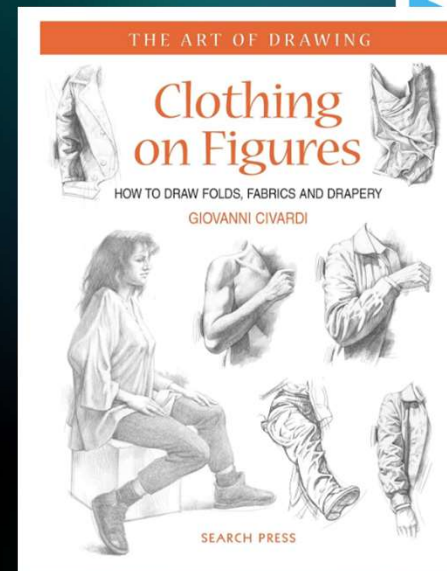
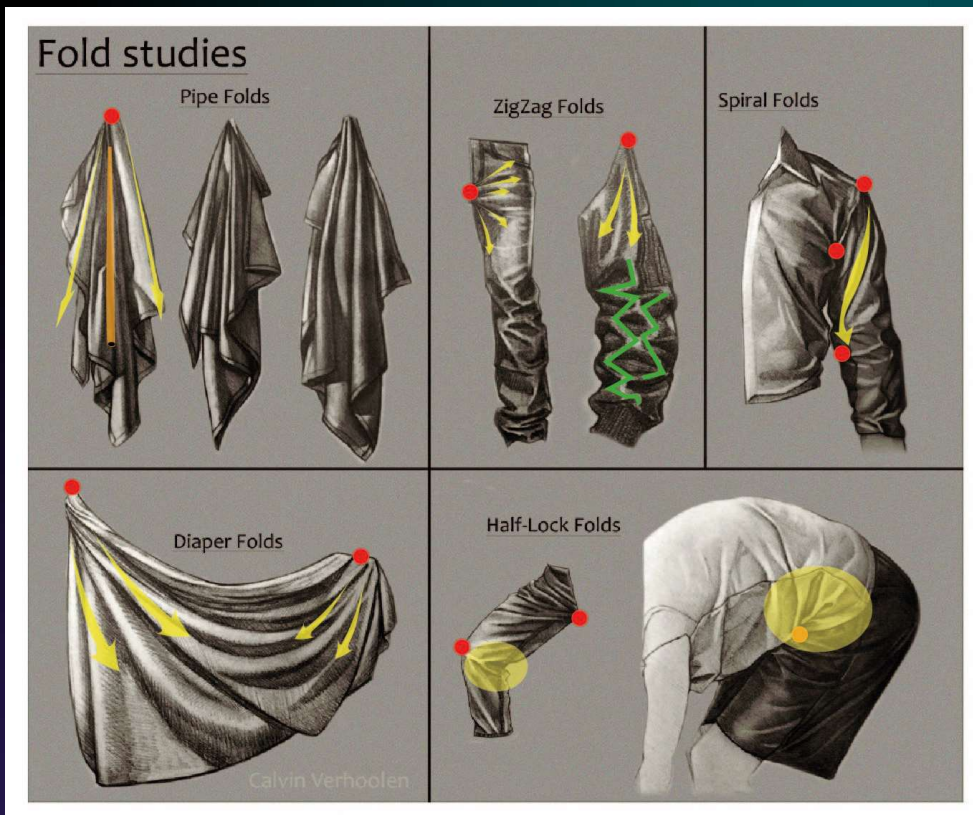
Scratch-building Scale Figures

Observe: the body dynamics



Scratch-building Scale Figures

Study: the dynamic of clothing



Source: <https://www.artstation.com/artwork/o0Vem>

Scratch-building Scale Figures

Study: the dynamic of clothing

Thick vs Light



Scratch-building Scale Figures

Study: the dynamic of clothing



Artist Mariana Gorbea

Scratch-building Scale Figures

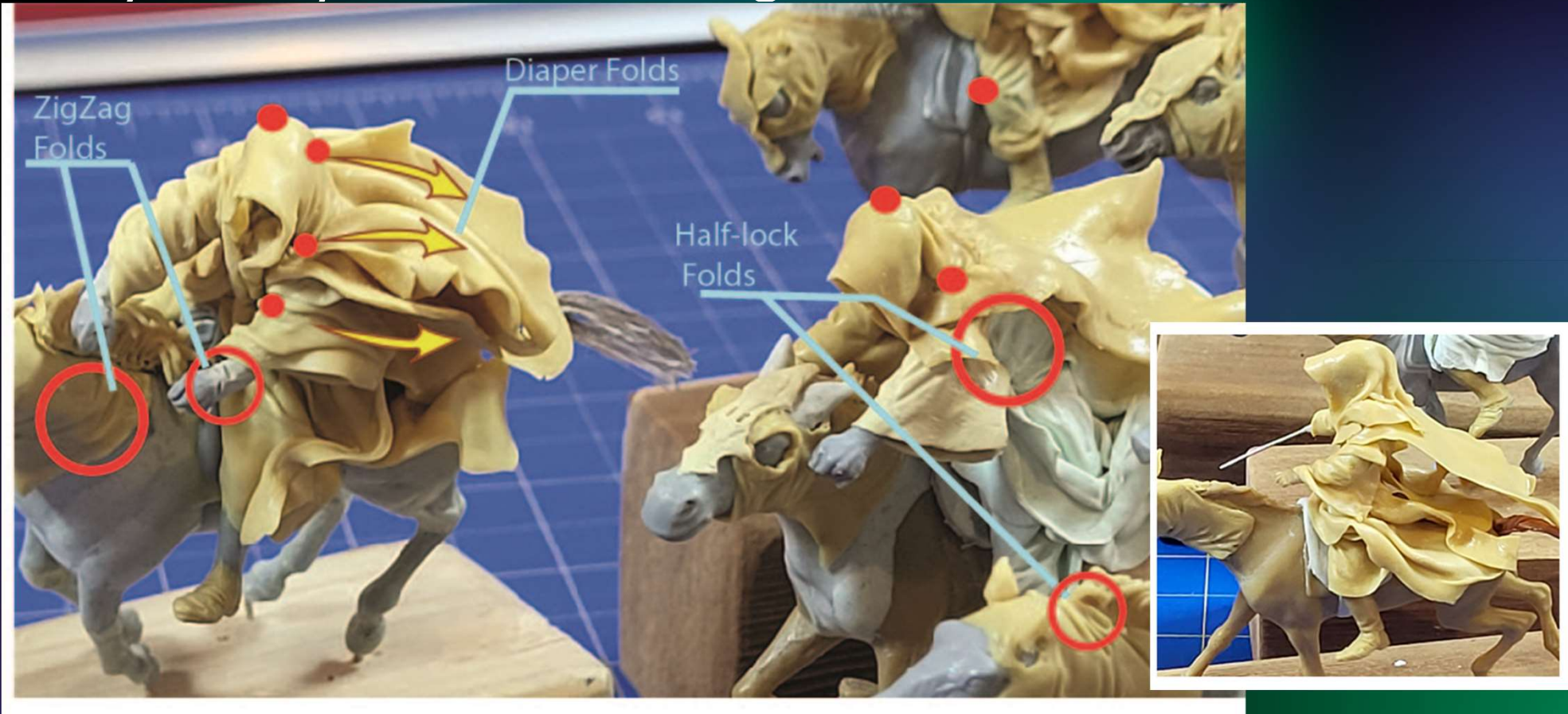
Study: the dynamic of clothing



Project: "The Escape of Arwen", 54mm (2019)

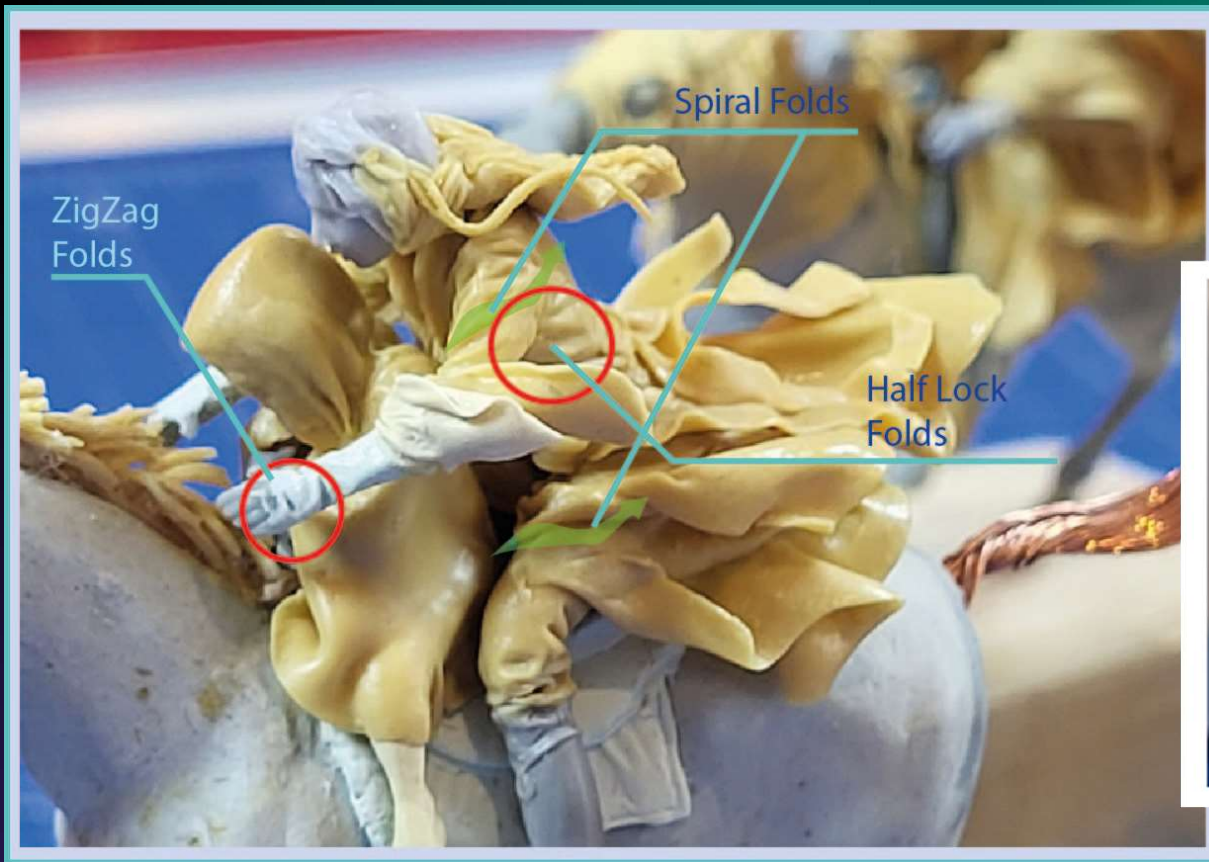
Scratch-building Scale Figures

Study: the dynamic of clothing



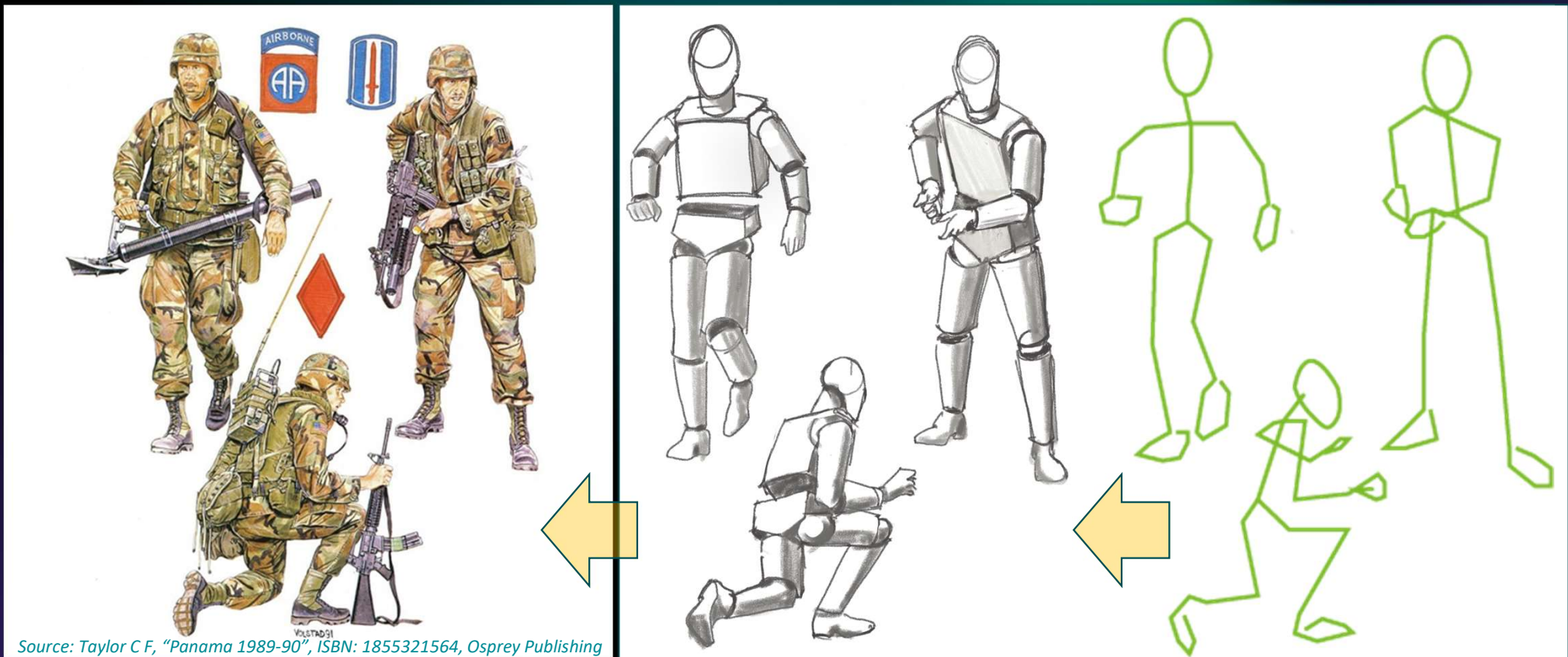
Scratch-building Scale Figures

Study: the dynamic of clothing



Scratch-building Scale Figures

[3] The process 1-2-3



Scratch-building Scale Figures

[4] Put everything into practice

1:35 '39-'45 SERIES

SAS De
3 Patrol Vehicle



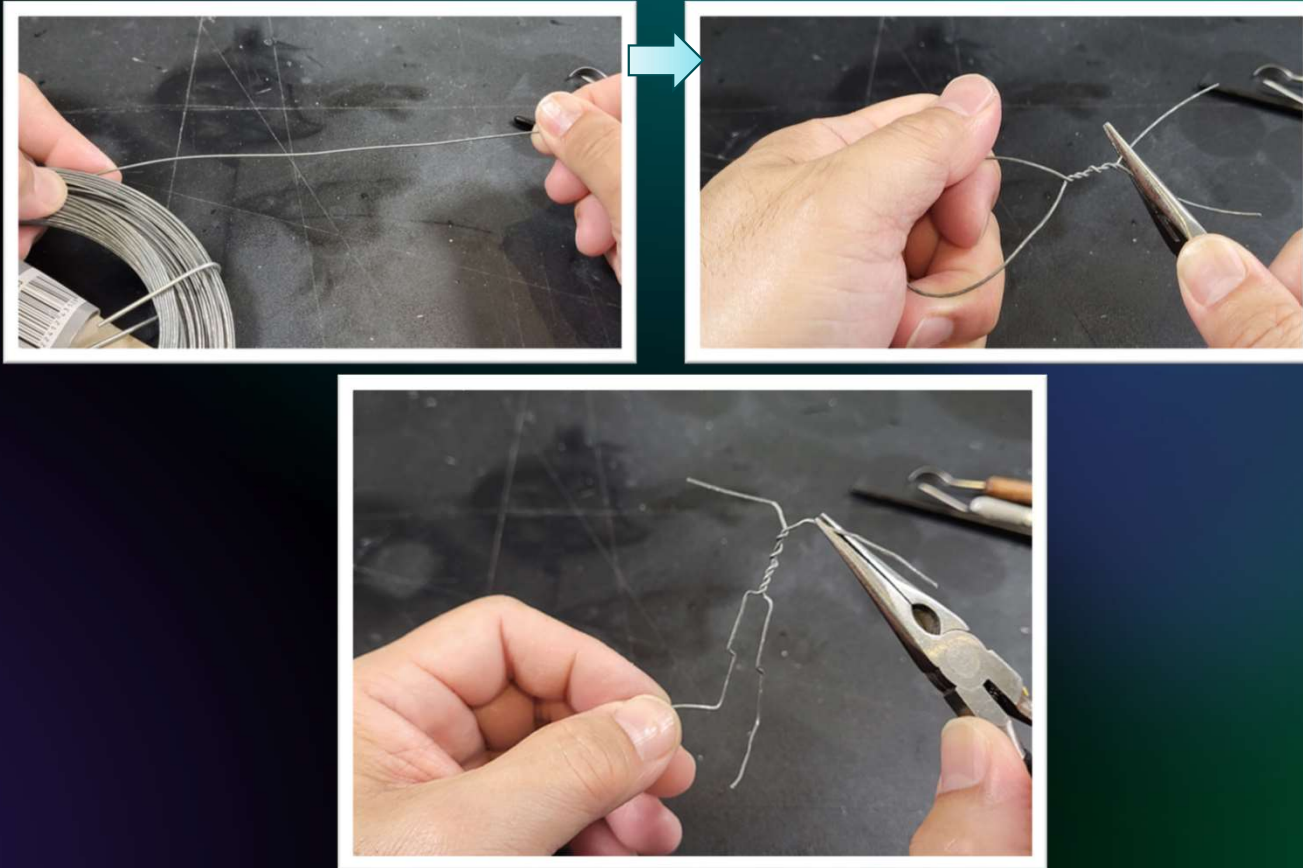
DRAGON



1. Captain, 'I' Detachment SAS, North Africa, 1942
2. Sergeant, 'I' Detachment, North Africa, 1942
3. Major David Stirling, North Africa, 1942
Illustration source: unknown

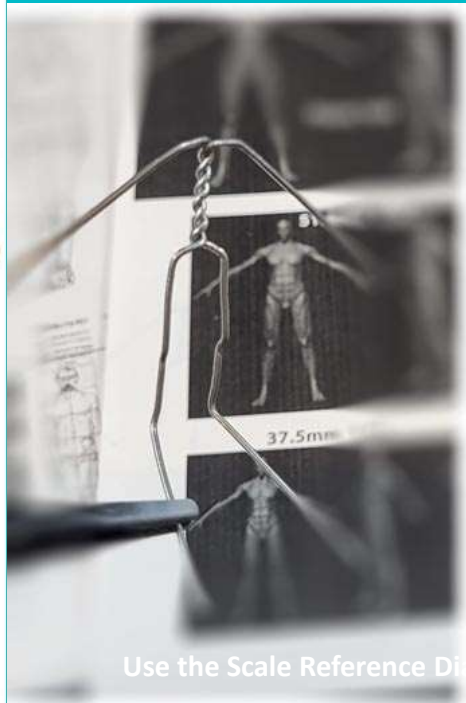
Scratch-building Scale Figures

Step 1: Armature, material: 1mm picture frame wire



Scratch-building Scale Figures

Step 1: Armature, material: 1mm picture frame wire

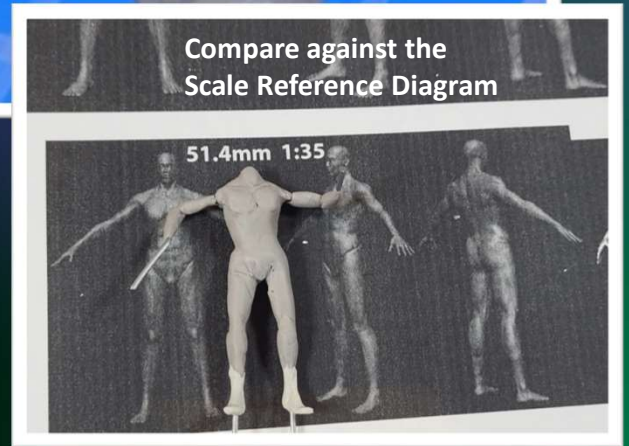
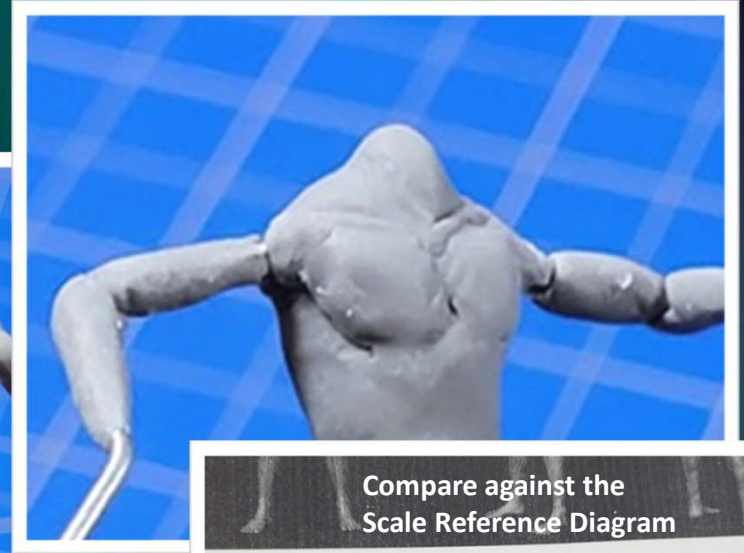
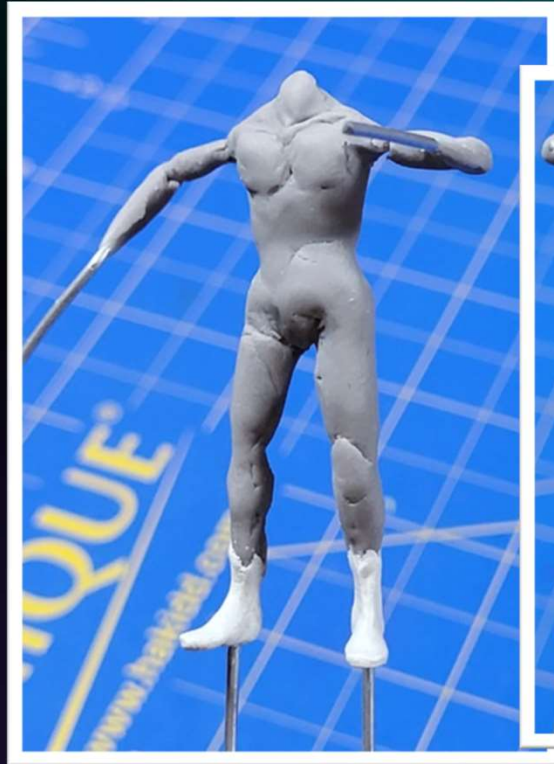


Use the Scale Reference Diagram to check the proportion

Illustration source: unknown

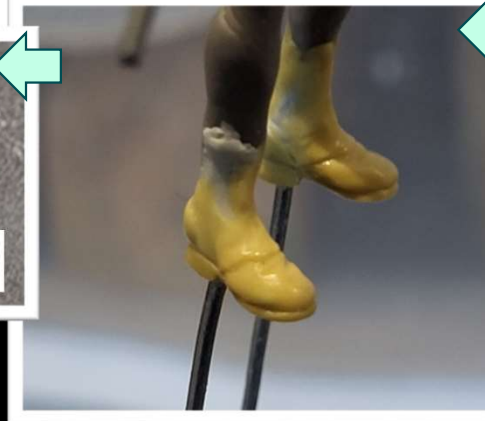
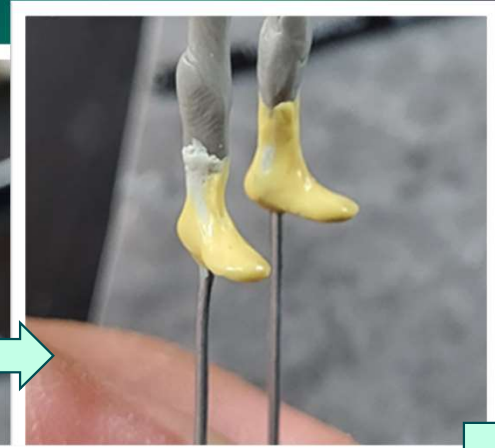
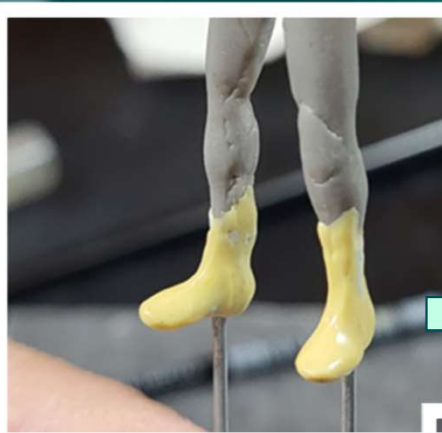
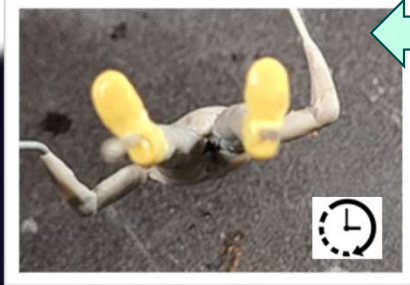
Scratch-building Scale Figures

Step 2: Build up the body mass using Sculpey



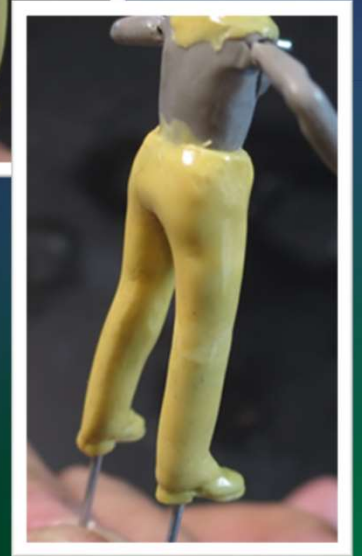
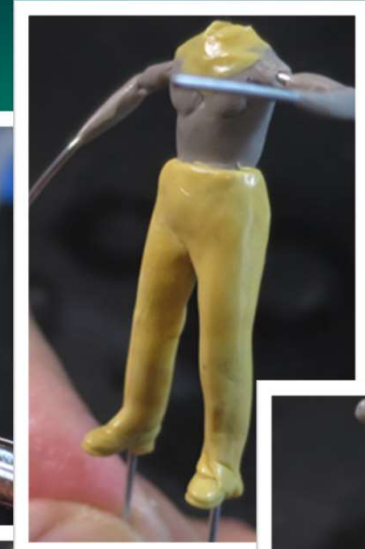
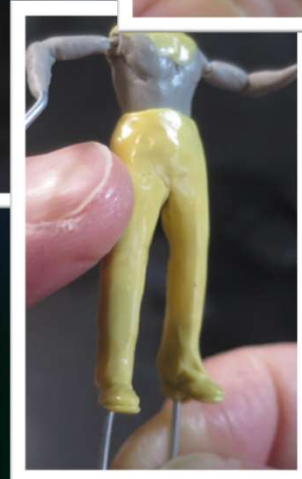
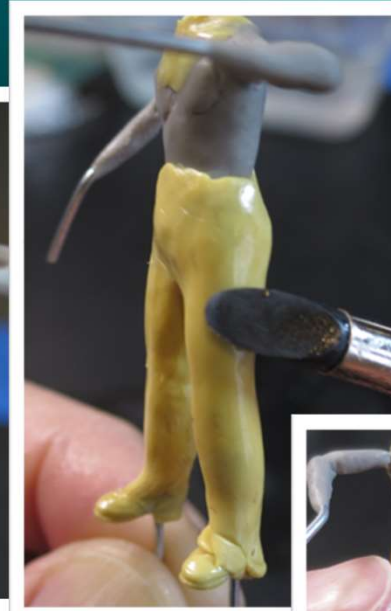
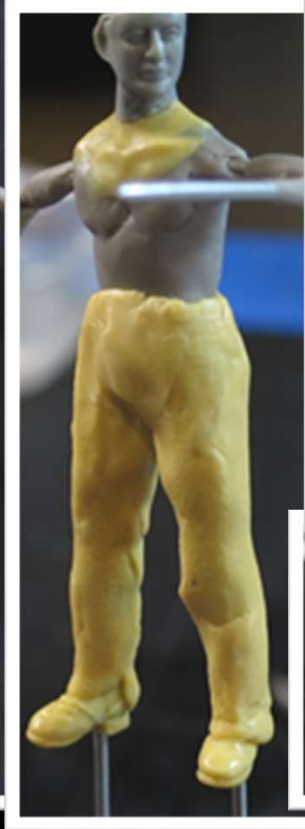
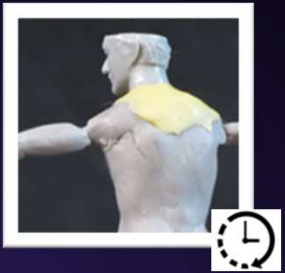
Scratch-building Scale Figures

Step 3: Sculpt the layers



Scratch-building Scale Figures

Step 3: Sculpt the layers



Scratch-building Scale Figures

Step 3: Sculpt the layers



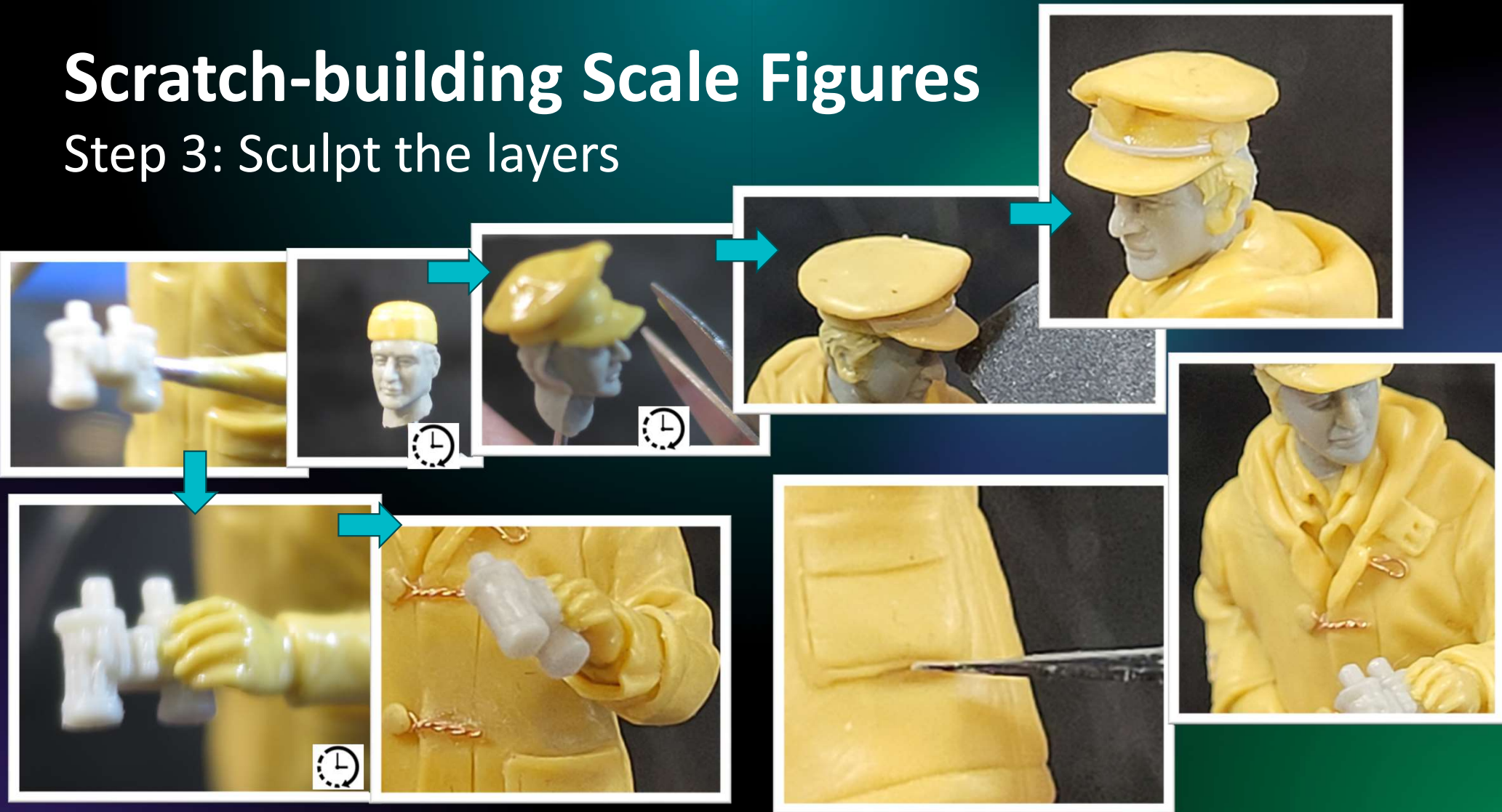
Scratch-building Scale Figures

Step 3: Sculpt the layers



Scratch-building Scale Figures

Step 3: Sculpt the layers



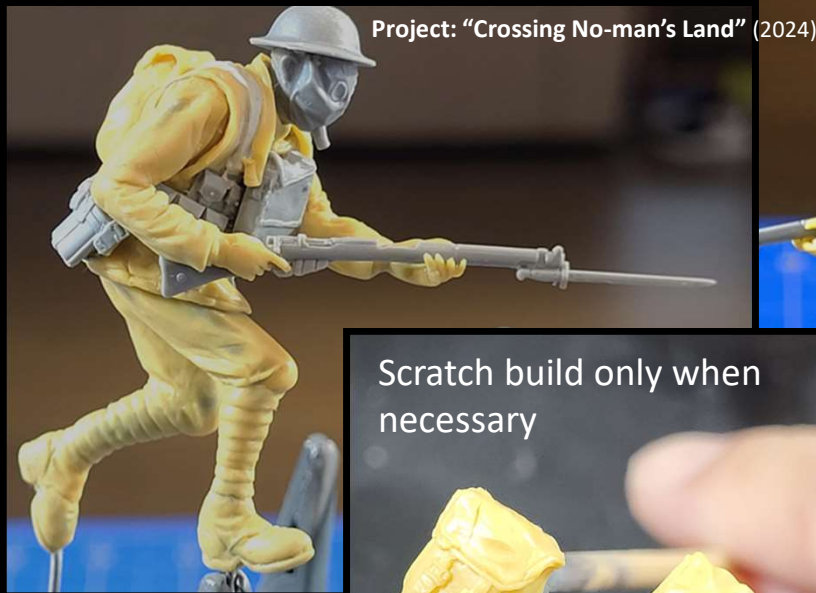
Scratch-building Scale Figures

Step 3: Finish



Scratch-building Scale Figures

Sharing #1: Scratch build only when necessary



- Use commercial and readily available replacement parts



Scratch-building Scale Figures

Sharing #2: Use reference photos

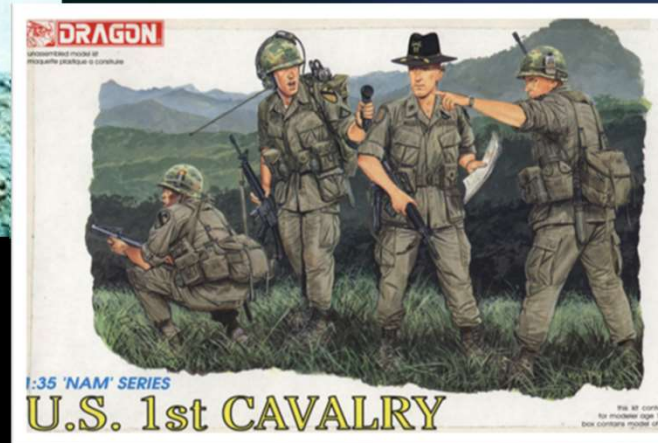


Project: "Charlie Don't Surf", 1:35 (2023)



Source

- Live models
- Movie screenshots
- Photo archive
- Documentaries
- Box art



Scratch-building Scale Figures

Sharing #3: Don't rush your work

- **Be patient, work on one small area per session**
- **Limit your work time**
- **Putty curing takes time**
- **Don't fight fatigue**



Scratch-building Scale Figures

Sharing #4: Play the role of your character

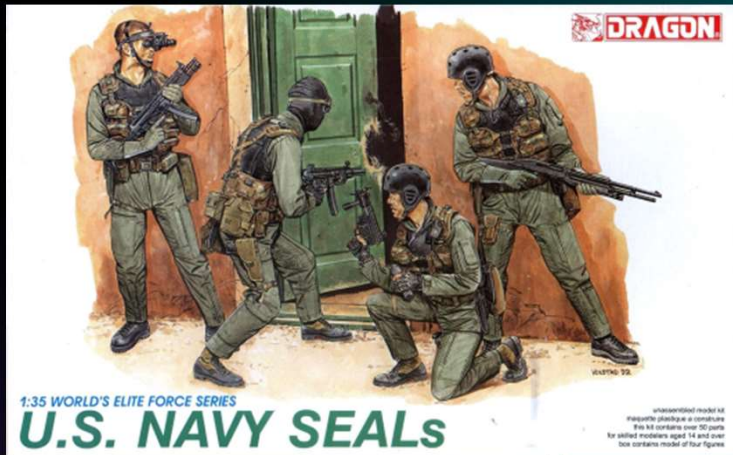


Immersive Empathy

- <https://webdesign.tutsplus.com/how-to-practice-immersive-empathy-in-design-thinking--cms-31217a>
- <https://focusu.com/blog/practising-immersive-empathy/>

Scratch-building Scale Figures

Project: "Duke Six In Position"



Scratch-building Scale Figures

Project: "Duke Six In Position"



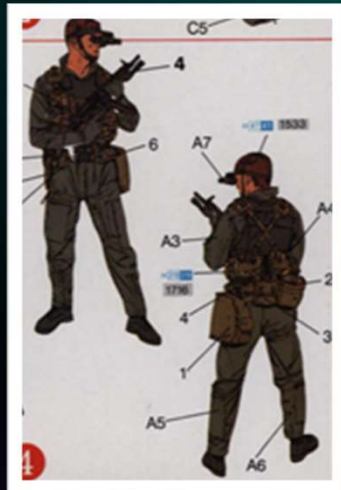
Scratch-building Scale Figures

Project: "Duke Six In Position"



Scratch-building Scale Figures

Project: "Duke Six In Position"



Scratch-building Scale Figures

Project: "Duke Six In Position"



Scratch-building Scale Figures



Q&A