

Automobile Design Techniques and Design Modeling

Mr. Frederick E. Hoadley

A significant textbook presentation of design modeling in the past, present and future, surface development, studio establishment, mold making and suppliers list - featuring the use of Hard Styling throughout. 350 pages, 450 photos. Hardcover.



CHAPTER 1 - Automobile Design Models

- George J. Mercer
- Harley J. Earl
- Alan H. Leamy
- Joseph Thompson
- Gordon M. Buehrig
- Eugene T. Gregorie

CHAPTER 2 - Design Systems

- Surface Development Systems
- Model Measuring Systems
- Design Modeling Equipment
- Interior Modeling
- Exterior Modeling Systems
- The Norton Tooling Bridge
- The Progressive Modeling Bridge
- The Schiess Modeling Bridge
- Digital Electronic Automation (DEA)
- The Portage Layout Machine
- The Larnerson Bridge
- Tarus Machines
- Other Systems

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CHAPTER 3 - An Overview

- Design Modeling in Industrial Design
- Training
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- History of Styling Clay
- Design Development Stages
- Casting from Clay Models
- Design Model Integrity and Accuracy
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CHAPTER 4 - Studio Equipment and Arrangements

- Design Studio Equipment
- Capitalized Basic Equipment
- Modeling Equipment
- Design Equipment
- Engineering Equipment

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- Expensed Basic Supplies
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- Art Supplies
- Drafting Supplies
- Specialized Equipment
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CHAPTER 5 - Traditions, Tools, and Techniques

- Keys to Achievement
- Design Model Development Steps
- Starting a Design Model
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- Wood Battens
- Styling Clay Steels
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- True Sweeps (Radius Sweeps)
- Ship Curves
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- Aluminum Foil
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- Wire Tools and Wood Tools

CHAPTER 6 - Beginning a Design Model

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- Engineering Drawings
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- Assimilating the Information
- Designing an Armature
- Aligning the Armature
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- Determining Styling Clay Requirements
- Laying up the Styling Clay
- Obtaining a Good Clay Bond
- Special Situations

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- Roughing in the Model
- Why Design Models are Needed
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- Free-Hand Modeling
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- Cleaning up the Model
- Checking Highlights and Reflections
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- Fine Tuning the Model
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- Testing New Materials
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- Model Preparation
- Using Block Offs and Separator
- Use of Parting Agents
- Sources of Material for Casting Negatives
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- Removing the Plaster Negative
- Preparing Negatives to Cast Positives
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CHAPTER 14 - Using Plastics to Cast Models

- Types of Plastics Used
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- Room Temperature Vulcanizing (RTV Materials)
- QuickCast Tooling Plastics
- Preparing Vacuum Forming Tools
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- Using Tooling Foam
- Polyester FRP Negatives
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- 2. Precision Styling Clay Model Replication
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