

# The Wonderful Hobby of Model Railroading

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## Your Experiences and Interests

- Who has a model railroad? What scale?
- Who is thinking about building one?
- Who likes to create and invent things?
- Who likes Carpentry? Design? Computers or Electronics? Art? Photography? Invention? Travel? Operations? Research? History?



## USA Railroad Trivia

- Railroads tied the country together in 1800's
  - Most National Parks in West established by RR's
  - Which President authorized Transcontinental RR?
  - What time standard was established due to RR's?
- The Iron Horse (steam locomotive) enabled this
  - Which one steam loco has never been retired?
  - What locomotive technology dominates today?
  - What other motive power technologies used/tried?
- Which 7 Class 1 RR's ran into Cinti?
- What % of all freight ton-miles moves by rail today?



## World's Greatest Hobby?

- Model Railroading often called this
- A hobby organization even branded this
- Model Railroader magazine uses "Fun" slogan
- Why do you think it's said to be "great and fun"?



**Model  
Railroading  
is Fun!**

# Why Hobby So Appealing?



- Endless depth and breadth of interest areas
- Building something cool with your own hands
- Artistic expression and creativity
- Opportunity to create a masterpiece
- Opportunity to learn and apply new skills
- Opportunity to problem solve and invent
- Stress relief
- Life-long relationships, friendships, fellowships
- Satisfaction, enjoyment and endless fun!

# Unlimited Interest Areas

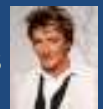


- Photography – real and models
- Historical research & railfanning
- Layout design and construction
- Layout operations – dispatching, crews, etc.
- Modeling – locos, rolling stock (cars), structures, scenery, track, benchwork (wood working), ...
- Electrical and computers – wiring, controls, etc.
- Leading and serving – volunteering, officials
- Group events – conventions, shows, trips, clubs

# Celebrity Model Railroaders

## Actors

Tim Allen  
Yul Bryner  
Gary Coleman  
Kevin Costner  
Richard Crenna  
James Doohan  
Whoopi Goldberg  
Rick Green  
Michael Gross  
Tom Hanks  
David Hasselhoff  
Patrick Stewart  
Donald Sutherland



## Singers/Musicians

Johnny Cash  
Phil Collins  
Roger Daltry  
Merle Haggard  
Elton John  
Roger Miller  
Lionel Richie  
Frank Sinatra  
Bruce Springsteen  
Rod Stewart  
Mel Torme  
Neil Young



## Athletes/Others

Roy Campanella  
Joe DiMaggio  
Michael Jordan  
Ricardo Patrese  
Sam Posey  
Danny Sullivan  
Tom Brokaw  
Winston Churchill  
Walt Disney  
Jay Leno  
Sally Jesse Raphael  
Tom Snyder



# Cincinnati Tops in the World



- 3 Museums with professional model railroads
  - Cincinnati Hist. Society Museum in Union Terminal
  - EnterTrainment Junction in West Chester
  - Behringer-Crawford Mus. in DeVou Park, KY
- Over 150 cataloged model railroads
  - 50 published, including 32 in Kalmbach publications
  - 16 published in annual “Great Model Railroads”
- Many very active railroad organizations
  - NMRA, Cinti RR Club and historical society chapters
  - Over 15 model railroad clubs, in all scales

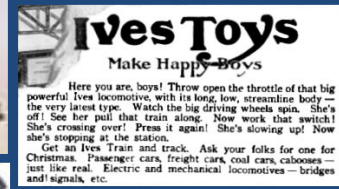


# Model Railroad History

- First model trains static, then steam or springs
- One early electric train had kitchen faucet driven dynamo to generate electricity
- Early key brands included Ives, Marx, Bing, Marklin Lionel, American Flyer
- 3-rail AC, then 2-rail DC, now 2-rail DCC (Digital Command Control) with wireless throttles
- HO scale gained popularity in 1950's to 1970's
- Quality injection molded plastics revolutionized



# Early Model Trains



# Lionel & American Flyer



# Other Toy Trains



# Types of Model Railroading

- **Scale Model Railroading**
  - Realistic equipment, scenery and operations
  - nearly everything in scale proportions
  - Photogenic realism often a key goal
- **Toy Trains**
  - Scenery often minimal or characterized
  - Tin-Plate, Hi-Rail, 3-Rail – e.g. Lionel O27, Am. Flyer...
  - Usually not scale proportions (wheels, size, details, ...)
- **Garden Railroading**
  - German made LGB equipment made this popular
  - Many couples partake in this outdoor narrow gauge



# Scales

**Scale** is the proportion of the model to real life (real life is called the “prototype”)

**S O G**  
**N HO Z**

Which is the largest scale? The smallest?

Which is most popular scale? 2<sup>nd</sup> most?

Which do many couples do together?

Which is Lionel famous for? American Flyer?

Which having resurgence in narrow gauge?

# Common Scales

- **Live Steam** – large enough to ride on
- **Large Scale** (G, F, etc.) – popular with gardens
- **O** – still popular, both scale and hi-rail
- **S** – having resurgence as narrow gauge
- **HO** – most popular
- **N** – 2<sup>nd</sup> most popular
- **Z** – very tiny



# Common Scales



Scale	Proportion	Scale Foot	Track Gauge
<b>Z</b>	1:220	~1/16"	~1/4"
<b>N</b>	1:160	~5/64"	~3/8" (9mm)
<b>HO</b>	1:87.1	~1/8" (3.5mm)	~5/8"
<b>S</b>	1:64	3/16"	~7/8"
<b>O</b>	1:48	1/4"	~1-1/4"
<b>Lrg Scales (F, G, ...)</b>	1:20.3, 1:22.5, 1:24, 1:29, 1:32	~3/8" to 9/16"	~1-3/4"
<b>Live Stm</b>	1:16, 1:12, 1:8	3/4", 1", 1-1/2"	3.5", 5", 7 1/4"



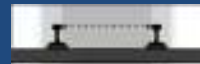
# Gauges



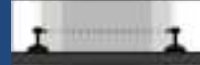
**Gauge** is the distance between rails

- What's standard gauge in North America?
- What were typical NA narrow gauges? Where?
- Why did some early railroads build narrow?
- What were gauges wider than standard called?
- What drove railroads to a standard gauge?

Narrow Gauge



Standard Gauge



Broad Gauge



# Gauges

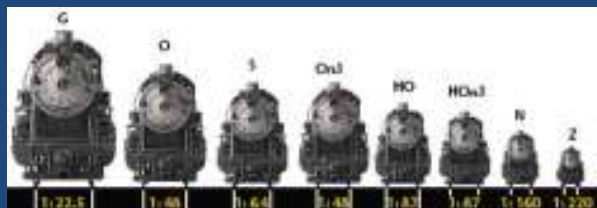
**Gauge** is the distance between the rails

- North America Standard Gauge = 4' - 8 1/2"
- Narrow Gauges = 2 ft, 30 in, 3 ft, 1 meter ...
- Broad Gauges (extinct) = 5 ft, 6 ft, ...
- Nomenclature examples -  
     HO scale 3 foot narrow gauge = HO<sub>n3</sub>  
     O scale 30 inch narrow gauge = O<sub>n30</sub>

# Which Scale/Gauge Best for You?

Depends on –

- What you want to focus on
- How much room you have
- How much you want to build vs. buy (RTR)
- Your eyesight
- Your personal preference



# Hobby Materials Evolutions

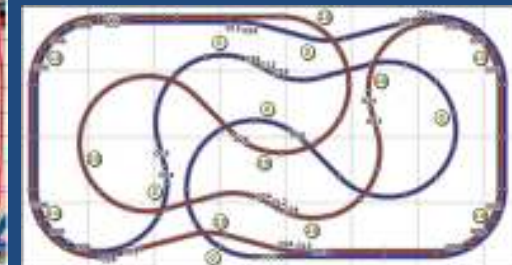
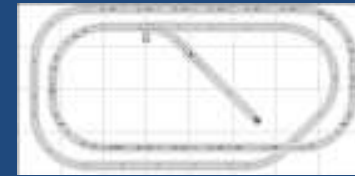
- **Wood sheets & strip wood** (moldings, rectangles)
- **Stamped metal** (tin-plate, etc.)
- Soldered metal sheets & shapes
- **White metal castings** (lead, pewter, etc.)
- Thermo-formed plastics (rare)
- **Injection molded plastics**
- **Plastic sheets & shapes** (I-beams, tubes, rods, ...)
- Photo-etched flat metal parts
- **Laser Cut Wood** (sheets and cardstock)
- **3-D printed parts**

# Hobby Evolutions

Topic	Pre 1950	Post 1960	Now
Best Locos	Metal (Tinplate)	Handmade Brass	Plastic, Hybrid
Best Cars	Metal and Cardstock	Wood and Plastic Kits	RTR Plastic, Resin Kits, 3D Print Kits
Controls	Batteries, Transformers	Power Packs, Cab Control Blocks	Wireless Digital Com. Ctrl (DCC)
HO Couplers	Talgo (Loops)	Horn Hook	Knuckles
Structures	Metal and Cardstock	Wood and Plastic Kits	Wood, Plastic, Resin, Laser Cut
Detail Parts	Wood, Wire	Metal, Plastic	Metal, 3D Print
Scenery Base	Screen Wire	Cardboard Strips	Carved Foam Sheets
Benchwork	Plywood Tables	Wood Grids	Wood & Foam
Layout Design	Simple Ovals, 8's	Spaghetti Bowls	Walk-around

# Layout Design Trends

- Simple Ovals and Figure 8's
- Spaghetti Bowls
- Walkaround or Linear



# Many Effort Levels Possible

- Ready-to-Run (RTR) – Growing manufacturing trend
- Kits – Varying skill levels in plastic, resin, wood, plaster
- Kit-Bashing
  - Mix and match kit parts to create something new
  - Popular and often fast way to create unique items
- Scratch-building
  - Use basic raw materials to build structures, cars, locos, ...
  - Many still enjoy this ultimate creative expression



# Track Laying Choices

- Sectional Track - aka "Snap Track"
- Sectional Track with built-in plastic roadbed
- Flexible Track - typically in 3 ft sections
- Handlaid Track - you make from ties, rail, spikes



## How to Get Started

- **Join with others!**
- Read **handbooks** and **magazines**
- Start simple, then expand
- **Visit nice layouts** for inspiration
- Do be eager to learn and grow
- Don't trust the internet
- Don't be in a hurry
- Try many areas to discover your interests and talents
- **Join with others!**



## Cincinnati Organizations

- Model RR Associations
  - Cincinnati Division 7, Mid-Central Region of **NMRA**
  - Many gauge or scale specific interest groups
- Model RR Clubs - see Cinti Div. 7 website
  - Many HO, two O, two N, one G
  - One ride-on “Live Steam” club
- Railroad Enthusiasm Organizations
  - Cincinnati Railroad Club (CUT)
  - Nat’l Railway Hist. Soc. (Cinti Chapter @ Ent. Junc.)
  - Many RR specific historical and “friends” societies



## Cincinnati Division 7 National Model RR Assoc.



- One of the most active NMRA chapters in world!
- **Meets every month**, usually **2<sup>nd</sup> Sunday at 2 pm**
  - Rotating locations around town
  - Short meeting, fun raffle, popular vote contest
  - Informative presentations by accomplished modelers!
  - Visit 2 inspiring layouts on our way home!
- Conducts three popular special events each year
  - **Spring Flea Market & Swap Meet** (March)
  - **Summer Picnic** (June) – w/ trivia contest & door prizes
  - **Fall Cincinnati Model Train Show** (October)
- Nice newsletter, website, Facebook, merchandise

## “Railfanning” Real Trains

- Big part of the hobby for many modelers
- ... aka “chasing trains”
- Learn about the “prototype” (real trains)
- Both past and present eras and technologies
- Beautiful scenery, travel and photo opportunities
- Wonderful fellowship and family fun
- Great Inspiration for our modeling

Cass Scenic Railway, WV



Kentucky



## Inspirational Scale Model RR's

- Goal = as realistic as possible
- Often have museum quality scenery
- Precision built structures, rolling stock, locos
- Everything “weathered” to enhance realism
- Purposeful realistic operations often a goal

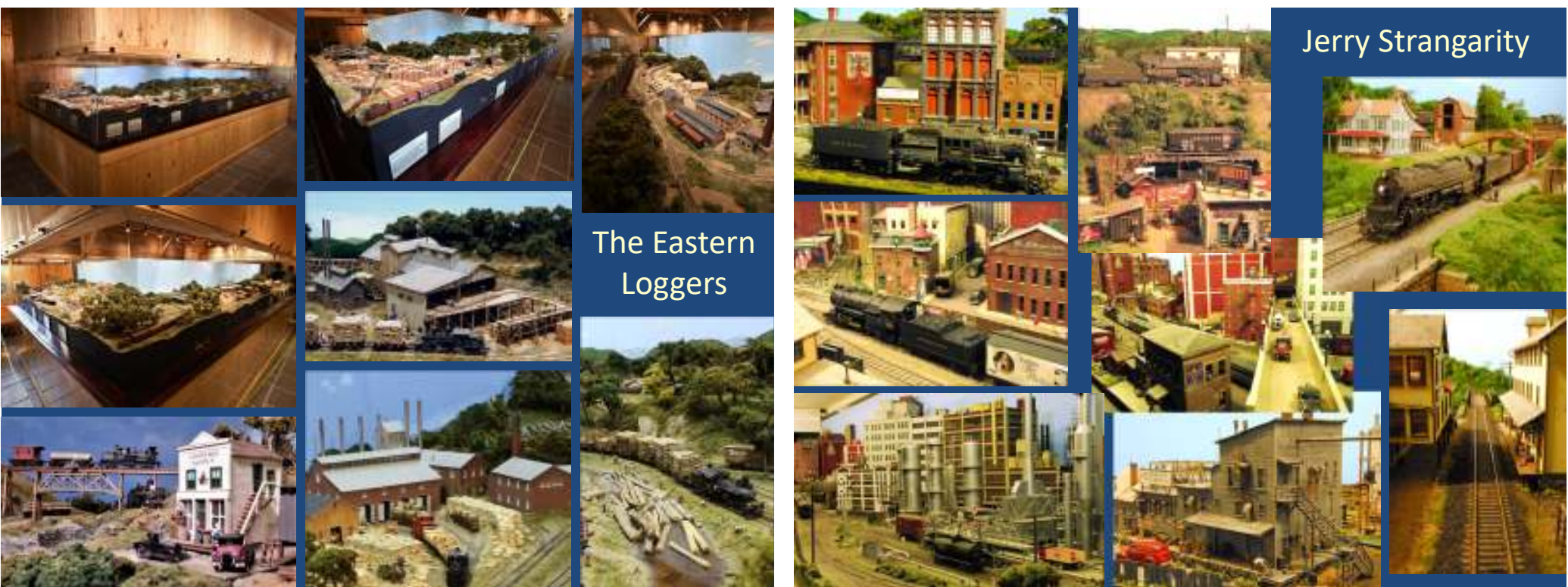
Guess what scale and gauge each of the following examples are?

White Pass & Yukon RR



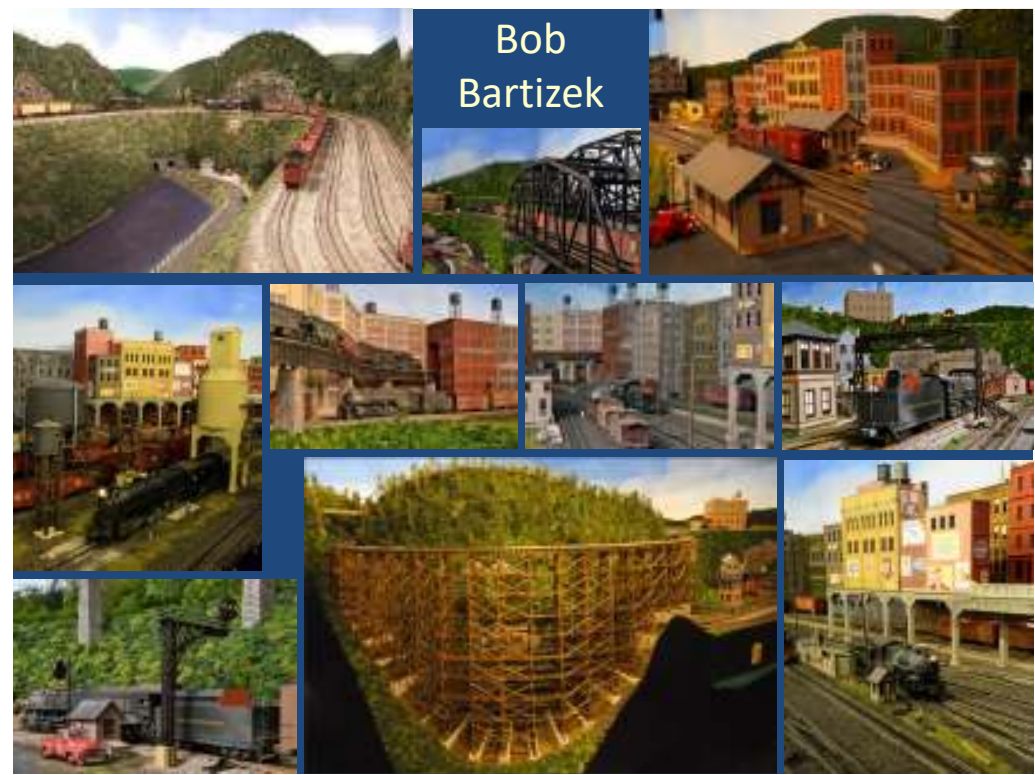


Jerry Strangarity

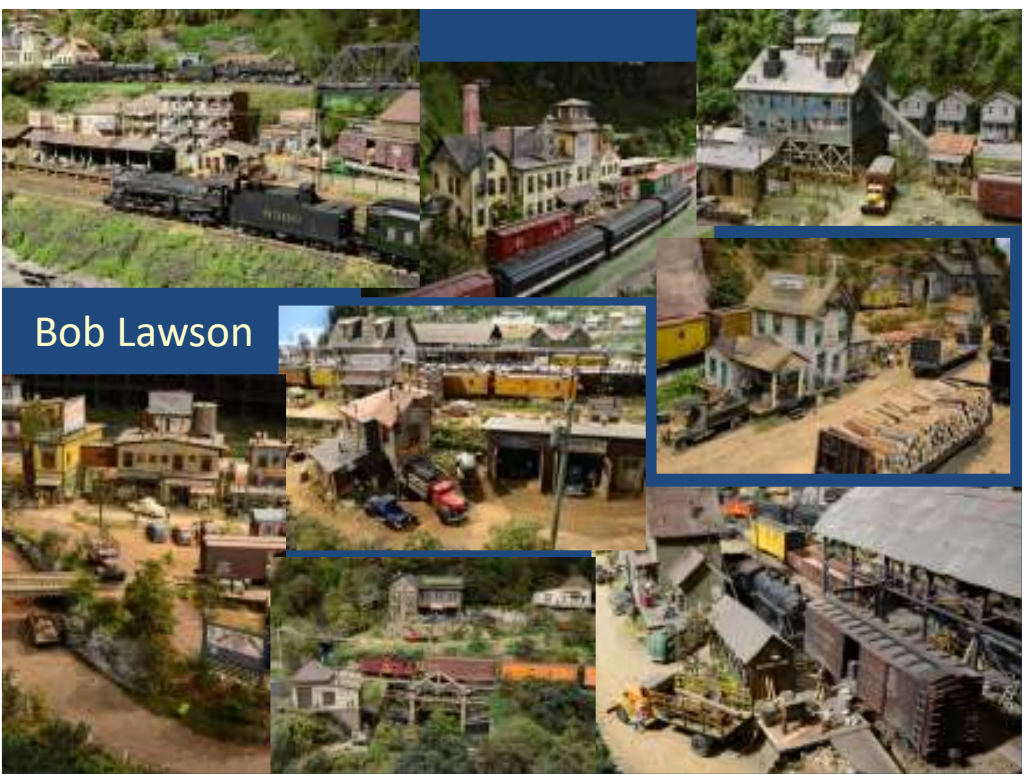


The Eastern Loggers

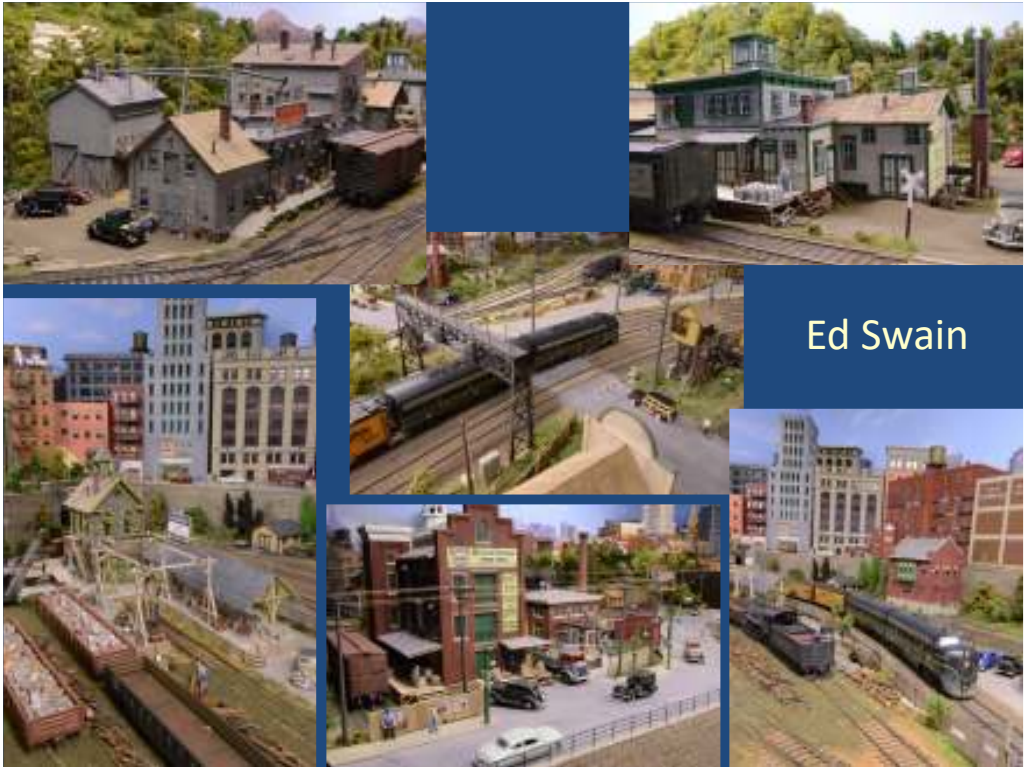
Bob Bartizek



Bob Lawson



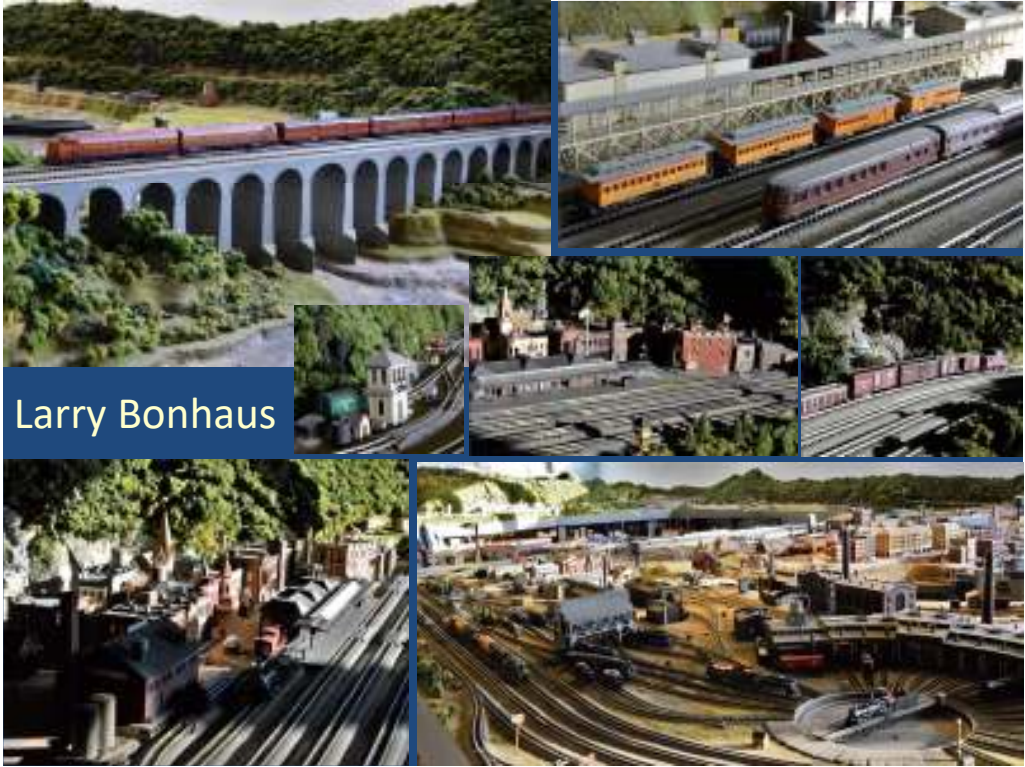
Bob Kuchler and Chris Broughton



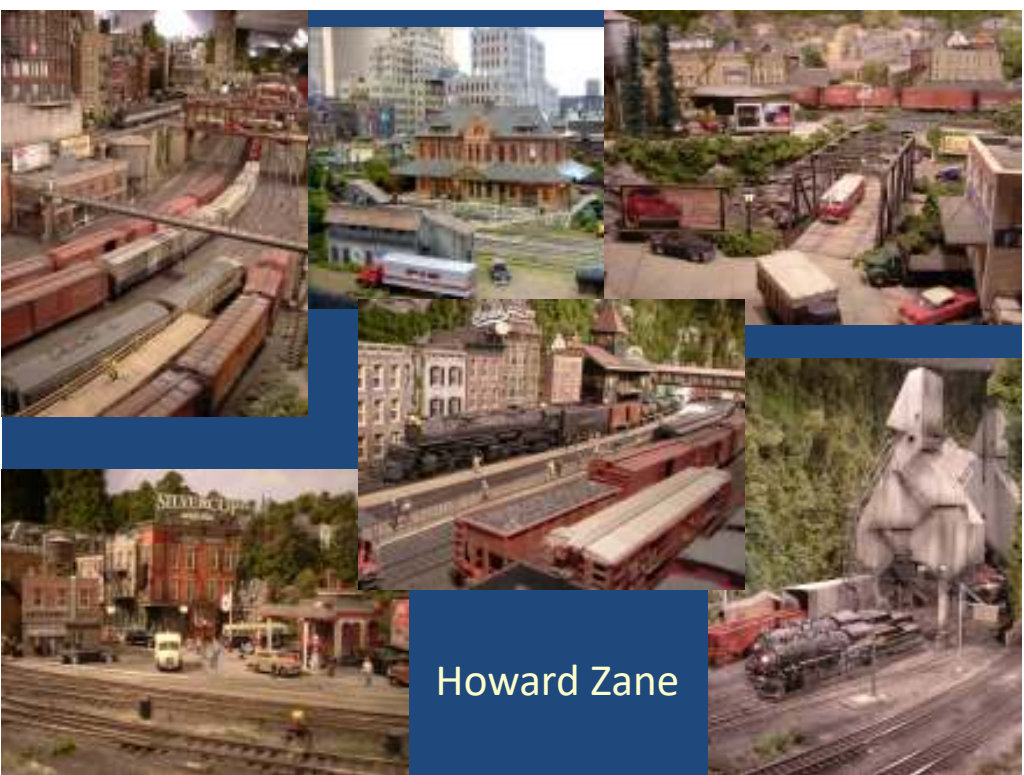
Ed Swain



Curt LaRue



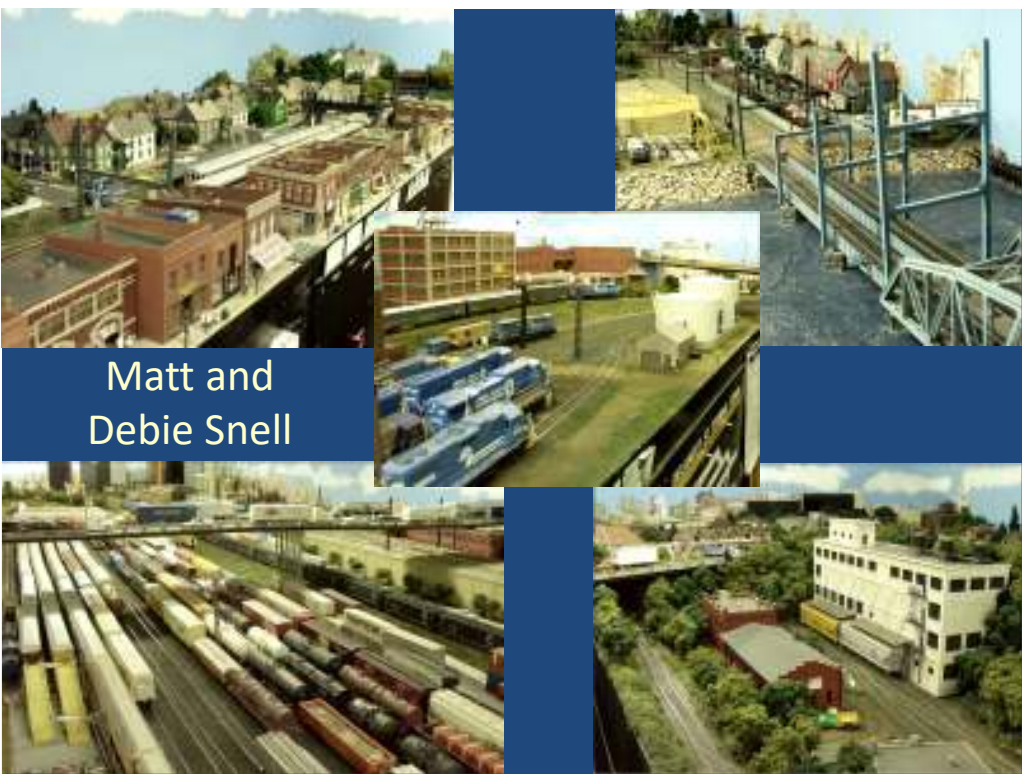
Larry Bonhaus



Howard Zane



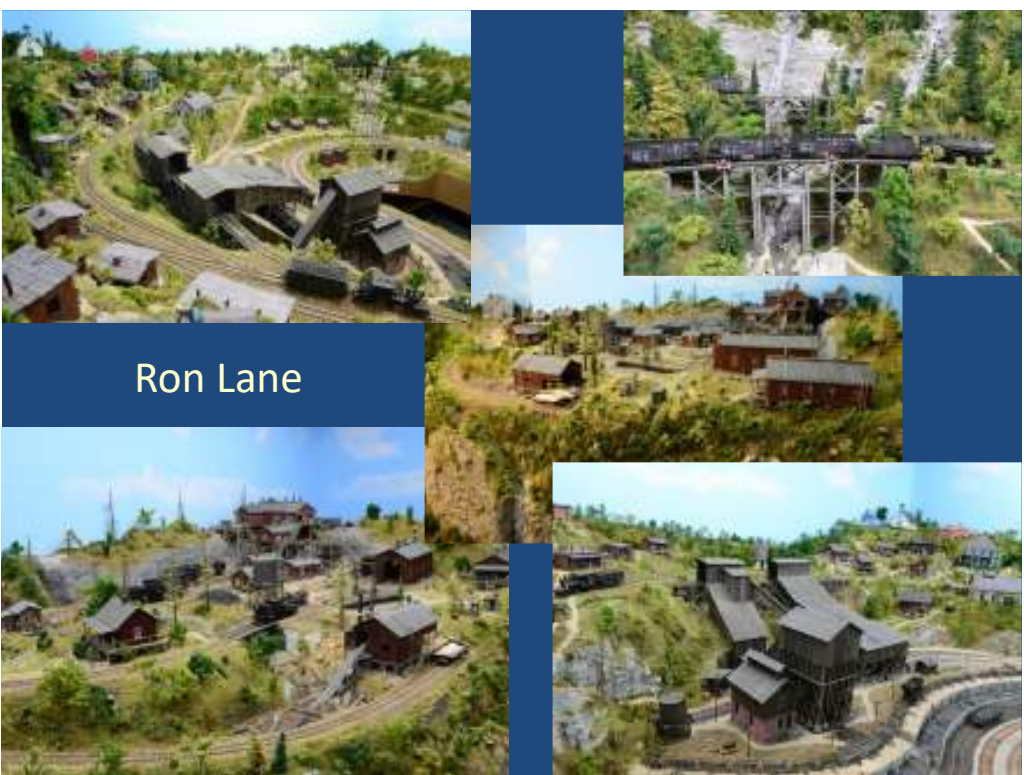
Dave Nenna



Matt and Debie Snell



Gerry Albers and Allen McClelland



Ron Lane



Cincinnati Northern Club



Cinti Model Railway Club



Entertainment Junction

ENTERTAINMENT JUNCTION

Cincinnati  
Historical  
Society at CUT



Holiday  
Junction  
at CUT



Behringer -  
Crawford  
Museum



Fine Scale  
Museum



Ray Faragher





Cinder Sniffers

Join the World's Greatest Hobby!



Questions or Comments?