Background Buildings Using Your Computer & the Internet

Marshall D. Abrams
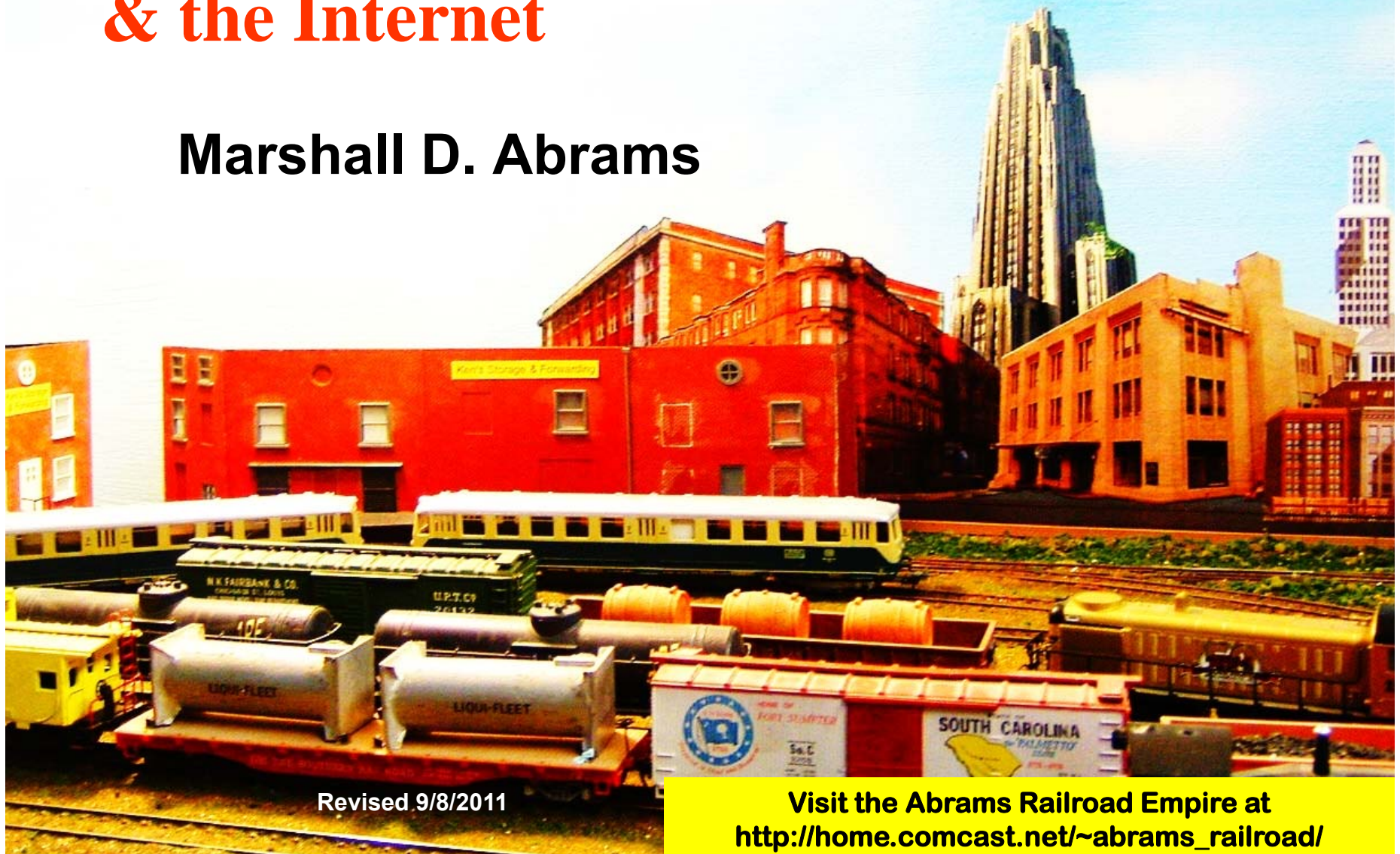
Revised 9/8/2011

About Backdrops

- ◆ **What is a backdrop**
  - ☐ **Vertical surface picturing scene from very far away to immediately behind the horizontal railroad and scenery**

  - ☐ **Add middle distance scenery**
    - ■ **Nature (e.g., mountains) or man-made (e.g., urban)**
- ◆ **Why backdrops are important**
  - ☐ **Adding a backdrop (background scenery) to your model railroad is one of the simplest and most effective ways to enhance its overall appearance**
  - ☐ **The backdrop helps set the context in which the railroad operates**

Backdrop Alternatives

- **Alternative ways of making a backdrop**
  - ☐ **Ready-made or custom**
  - ☐ **Paint**
  - ☐ **Build-up using cut-out pictures**
    - ▪ **Focus of this clinic**
    - ▪ **Discuss others first**
    - ▪ **Ready-made can be incorporated as cut-outs**

On-Line Backdrop Creation Ideas (1 of 3)

- ◆ **Background skylines, structures, ads & more**
  http://www.gatewaynmra.org/download.htm
  - ☐ **Vintage Product Advertising Signs**
  - ☐ **Industrial and Warehouse Buildings**
  - ☐ **Building Interiors**
  - ☐ **Background and City Skylines**
  - ☐ **Riverfront Backgrounds**

- ◆ **Backdrop Painting Know-How**
  http://www.tttrains.com/tips/bkdrp.htm
  - ☐ **Introduction to Backdrop Know-how**
  - ☐ **Successful Backdrops**
  - ☐ **Construction**
  - ☐ **Preparation**
  - ☐ **Deb's Advice**
  - ☐ **Make Some Decisions**
  - ☐ **Colors**
  - ☐ **Painting: Some different Techniques**
  - ☐ **Procedure**

On-Line Backdrop Creation Ideas

- **Tips for Painting Clouds**
  http://www.tttrains.com/tips/clouds.htm
  - Introduction
  - Creating Distance - a quick lesson on perspective
  - Supplies
  - Making Stencil
  - Preparation
  - Procedure
  - Cautions or common mistakes
  - Helpful Hints

- **Painting Backdrops with Ease**
  http://www.sierrascalemodels.com/Art_Paint.htm
  - The sky
  - Clouds -- cumulus, cirrus, and status
  - Fair weather, puffy little clouds
  - Sometimes clouds have rain in them
  - The paint
  - Force perspective
  - If you are not happy with your results, remember you can repaint the wall blue and start over

- **Personal experience Painting Clouds**
  http://modelrr.oakviewresources.com/paint.htm

On-Line Backdrop Creation Ideas

◆ **Typical presentations on You Tube. Search for more.**

  ☐ **www.youtube.com/watch?v=MDwMkPebUGA**

   66 min - Amy Colburn, Professional Mural Artist, explains the components, or elements, that create a really outstanding backdrops.

  ☐ **www.youtube.com/watch?v=nym45geDiz4**

   5 min - Hand painted backdrop for an O guage model train layout

  ☐ **www.youtube.com/watch?v=wJGHBTvOG28**

   4 min - Fast and easy way to make a backdrop for model railroads, war scenes, dioramas.

  ☐ **www.youtube.com/watch?v=7zoFs9HOsTE**

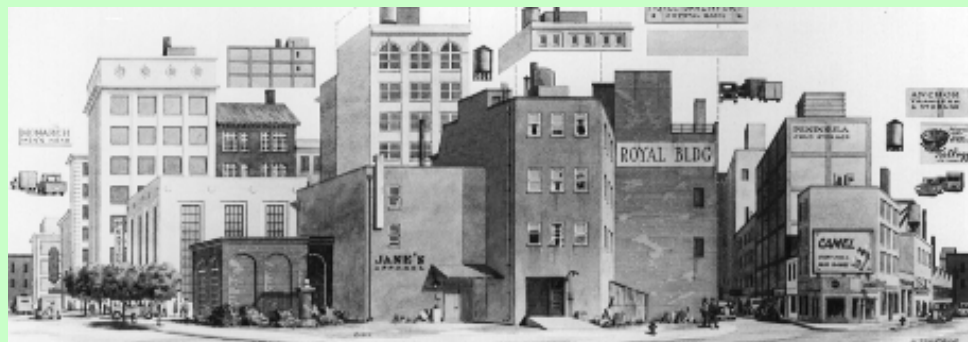   **22 min - How to Make Backdrops for Model Trains**

Commercial Urban Backdrops

◆ **Install out of the box as backdrop**

 ☐ **Glue to Masonite, sheet styrene or other backdrop support**

 ☐ **Can't mix brands —each has own tone, color balance, size, style, sky color**

◆ **Walthers Instant Horizon Background Scenes**
 http://www.walthers.com/exec/productinfo/949-712

◆ **Detail Associates**
 http://www.walthers.com/exec/productinfo/229-7502

Commercial Urban Backdrops

◆ **Backdrop murals canvas for model railroad layouts**
  http://www.backdropwarehouse.com/indexbdwh.htm } **Appear to be**
  http://www.backdrops4models.com/indexbd4m.htm } **same site**

◆ **Backdrop Junction http://www.backdropjunction.com/**

   They sell Cut Out Kits printed on an adhesive vinyl paper with a matte finish. Also do custom orders.

◆ **Others — search on "model railroad backdrop"**

Using Individual Buildings

◆ **Cut building out of commercial backdrops**

    ☐ **Cut out using straight edge and sharp hobby knife**

    ☐ **Need to eliminate all sky because it will be wrong color**

    ☐ **Scan the picture for duplicate or different size**

◆ **Use prepared cardstock cut-out buildings as low-profile or flats**

    ☐ **Check out http://www.cardmodelers.org/**

    ☐ **Free files for you to print (try searching for more)**

        ■ **http://www.gatewaynmra.org/download.htm#backgrounds**

        ■ **Actual historic buildings associated with Abraham Lincoln & Illinois main street http://www.illinoishistory.gov/ps/construct_mainstreet.htm**

   ■ **Free paper models of buildings from around the world http://www.ss42.com/pt-buildings.html**

- ◆ **Cardstock cut-out buildings for sale**
  - ☐ **Preprinted**
    - ▪ **Kingmill Radical Flats backdrop buildings are digitally printed on high quality 11 x 17 inch, 80 lb. cover stock http://www.kingmill.com**
    - ▪ **Qaz**
    - ▪ **Wsx**
  - ☐ **Download & print yourself (sometimes a freebie)**
    - ▪ **http://www.scalescenes.com**
    - ▪ **http://clevermodels.squarespace.com/**
    - ▪ **http://www.rpgnow.com/product/16634/Cheepsville-USA-Rural-America-Commercial-cardstock-buildings?it=1**
    - ▪ **http://www.erichotz.com/whitewash.html (wild west)**
  - ☐ **Software design program**
    - ▪ **Modelbuilder — create custom buildings & print http://www.modeltrainsoftware.com**

Painting Backdrop

- **Sky – needed whether you paint or paste buildings**
  - □ **Sky is darker overhead and lighter at horizon**
  - □ **Use two shades or tints of blue paint. Blend where they meet to get third shade**
  - □ **Clouds**
- **Pictures of clouds http://www.freefoto.com/browse/?query=clouds**
- **Make stencils for the clouds out of cardboard**
  - □ **The "wisps" (A) turned out to not be a good idea when the stencils were used repeatedly**
  - □ **Decrease cloud size from top to bottom of backdrop**
  - □ **Use paint sparingly**
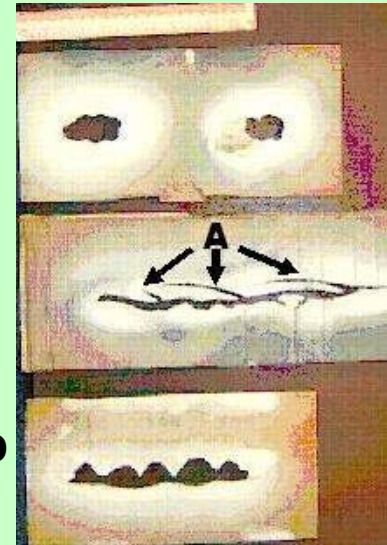
More Cloud Tips

◆ **Change stencils often**

◆ **Never spray near the outside edge**

◆ **Change position of stencils between blasts of paint: clouds will appear 3-D with the different layers of paint**

◆ **For the tops of clouds- hold the stencil 1/2 inch away from wall, giving a sharp edge**

◆ **For the bottoms of the clouds-hold stencil 1-2 inches away from backdrop, giving a soft fuzzy edge**

◆ **Overlay stencils to achieve shape/size variations**

◆ **Begin with the small horizon clouds: these multiple horizon clouds will receive overspray from the clouds above them, thereby creating atmospheric haze**

◆ **For storm clouds (below), spray gray paint first and then over spray with white to the desired density.**
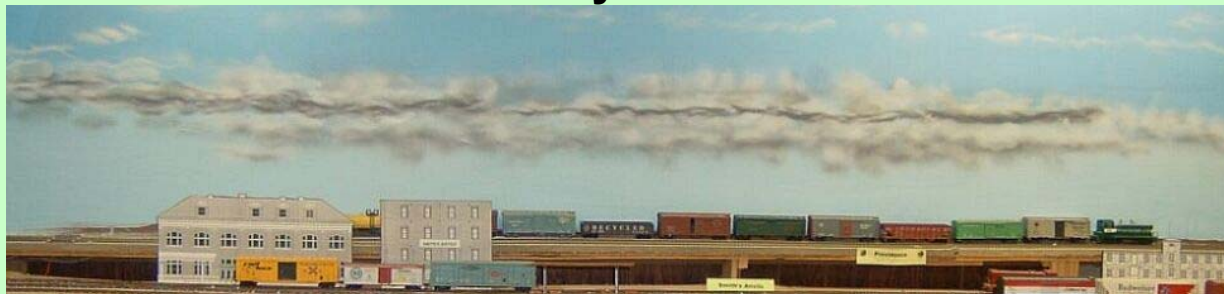
Pictures from Internet Resources

◆ **My personal collection**
   http://www.trainweb.org/BackdropFigures/

◆ **Great Buildings http://www.greatbuildings.com/**

◆ **Image Collections for Architectural History**
   http://www.brynmawr.edu/Acads/Cities/imgb/chartnn.html

   http://www.brynmawr.edu/Acads/Cities/imgb/digcapt5.html

◆ **Urban landscape http://scriptorium.lib.duke.edu/diap/**

◆ **Library of Congress Architecture**
   http://lcweb2.loc.gov/ammem/collections/gottscho/

◆ **National Building Museum http://www.nbm.org/**

◆ **National Trust for Historic Preservation http://www.nationaltrust.org/**

◆ **Building photos by city http://www.buildingphotos.com/**

More Pictures From the Internet

- ◆ **Search for Backdrop Pictures**

  - ☐ **Image search engines**

    - ■ **List of list of major well known photo-sharing websites @ Wikipedia
      http:// en.wikipedia.org/wiki/List_of_photo_sharing_websites**

    - ■ **Google images
      http://images.google.com**

    - ■ **Yahoo image search
      http://images.search.yahoo.com/**

    - ■ **Flickr pictures
       http://www.flickr.com/**

    - ■ **Pic search
       http://www.picsearch.com/**

  - ☐ **Regular search engines**

    - ■ **Search for specific images (e.g., firehouse picture)**

    - ■ **Use "picture," "photo," or "image" as search term**

Great Idea for Pictures From the Internet

◆ **Register on auction sites (such as eBay http://www.ebay.com/)**

  ☐ **Postcards, photos, pictures**

  ☐ **Many auction items contain pictures**

  ☐ **Search for your interest (e.g., Pittsburgh)**

  ☐ **Save search so that "hits" are emailed to you**

   ■ **Search: pittsburgh –pirates –steelers**

   ■ **Click on: Add to Favorites**

   ■ **Check box: ☐ Email me daily whenever there are new items for** | 12 months |

◆ **Typical Ebay email extract**

The University of Pittsburgh's
Heinz Memorial Chapel
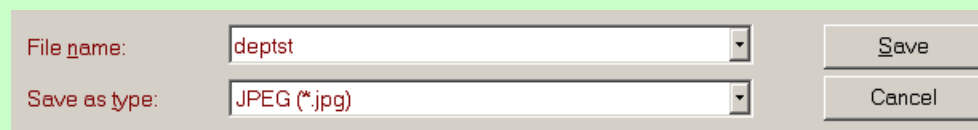Pittsburgh, PA.
$10.00 (0bids)
Time Left: 9d 22h 19m
Add to watch list

U.S.S. Pittsburgh 1920
Thanksgiving Invitation Menu"OB"
$3.95 (0bids)
Time Left: 6d 22h 2m
Add to watch list

Using a Picture from the Internet

- ◆ **Select the largest image available**
  - ☐ **Right click on picture**
  - ☐ **Select "save picture as" or "save image as"**
  - ☐ **Save as type "jpeg"**
  - ☐ **Save in dedicated directory that you'll remember**

Crop & Resize Pictures

- ◆ **You need a tool (application) that will crop & resize the picture**
  - ☐ **Powerpoint will work**
  - ☐ **Most photo programs will work**
  - ☐ **For Windows I recommend a free program "Irfan View" http://www.irfanview.com/**
  - ☐ **iPhoto, which ships free on every Mac, will handle the image editing**
- ◆ **Crop the picture to select the item you want**

River Scene from Point Bridge, Pittsburgh, Pa.

$\Rightarrow$
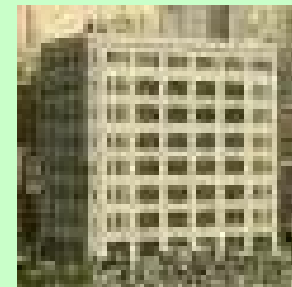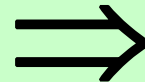
Perspective

- **Try to keep a roughly consistent perspective on all the buildings**
  - **Not good to be looking down on some and head-on to others**
  - **Select pictures with consistent viewpoint**

- **Where is the sun?**
  - **Beware of inconsistent shadows**
  - **Try to choose pictures without shadows**
  - **Flip building pictures horizontally to get all shadows on same side**
 - **The two pictures below are inconsistent in position of sun**

Sharpness, Resolution & Printing

◆ **Distance makes object look fuzzy & obscures details**
  - ☐ **Air pollution also makes them look dull**
  - ☐ **Use software to reduce brightness, contrast, and color saturation**

◆ **Resolution suitable for web pages is good enough for backdrop**
  - ☐ **100 dpi (dots per inch)**

◆ **Print on heavy non-glossy paper**
  - ☐ **Such as Hammermill Cover Stock**
  - ☐ **67 lb Vellum Bristol**
  - ☐ **Try using cream color to soften images**
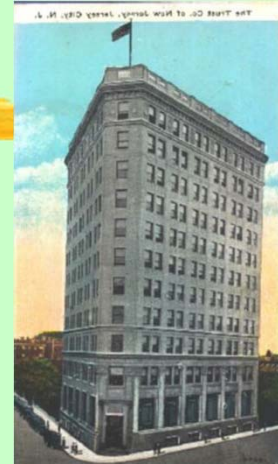
Touch-Up Pictures

- ◆ **Pictures may not be exactly what you want**
- ◆ **Use photo touch-up programs**
  - ☐ **Skill gained from experience**
- ◆ **Example**
  - ☐ **Remove unwanted foreground detail**
  - ☐ **Cut & paste to fill in**

$\Rightarrow$

- ◆ **Some unwanted background can be cut away**

20

Another Touchup Example

- **Original**

- **Final**

Perspective

◆ **Creating illusion of distance — a quick lesson in perspective**
  ☐ **Smaller objects appear further away**
  ☐ **Overlapped objects appear behind**
  ☐ **Objects in the distance have softer edges**
  ☐ **Objects in the distance appear grayer**

◆ **Example: warehouses progressively smaller gives illusion of being further away**
  ☐ **Add "hints" (these buildings are numbered 1 & 2)**

More on Perspective

- ◆ **Forced perspective**
  - □ **Article: http://ezinearticles.com/?Perspective-and-Background-in-Model-Train-Layouts&id=3472134**
  - □ **Blog: Handling 90 Degree Corners...my Trials and Tribulations with Forced Perspective http://model-railroad-hobbyist.com/node/5114**
  - □ **Book: Building City Scenery: For Your Model Railroad (Model Railroader) by John Pryke**
- ◆ **Use scale to measure height of known object, such as door or distance between floors**
- ◆ **Reduce size to give illusion of distance**
  - □ **Close, foreground   100%**
  - □ **Near, 100-500 yards   90 – 100%**
  - □ **¼-½ mile   80 – 90%**
  - □ **Miles   30 – 50%**
- ◆ **Detail in building further away always smaller than one in front of it (e.g., height of window)**
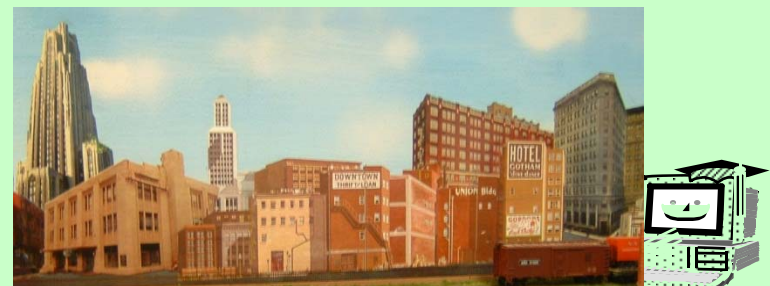
Mock Up the Scene

◆ **Attach cut outs to backdrop to see how they look**
  □ **Use Post-it™ correction tape**

◆ **Take photo to guide you when you actually paste**
  □ **You have to paste back-to front**
  □ **Include some reference point**
  □ **Example, building is in front of backdrop**

Paste Buildings to Backdrop

- **Grayscale print is good enough to use as guide**

- **"Paint" slightly dilute white glue to back of building**
  - □ **Slide into place if necessary**
- **When glue is dry (overnight) spray with clear flat for protection**

Standoff Spacers for 3D Appearance

- ◆ Gluing the picture onto a spacer that is cut to the same outline will provide a 3D illusion effect of depth (distance)
- ◆ Foamcore board is probably best and cheapest for this
- ◆ Multiple overlays will increase this effect, but you don't want to get carried away
- ◆ Bigger ones in back, usually. This violates the forced perspective a bit
- ◆ You'll get a little bit of shadow effect as well, depending on your lighting

Views of the Result (1/8)

Views of the Result (3/8)

Views of the Result (6/8)

Views of the Result (7/8)

Reference: Top Free or Shareware Photo Editors

◆ **Before you purchase graphics software, it may be worthwhile to try some free software, or at least download the trial versions of the software you are considering before making your purchase. Check these out at**
http://graphicssoft.about.com/od/findsoftware/u/whattobuy.htm#s2

Gallery of Free Graphics Software
Free Photo Editors for Windows
Free Photo Editors for Macintosh
Web-based Image Tools
ArtRage Free Version Screen Shot &
Mini-Review
FastStone - Free Image Viewer for
Windows
Google SketchUp 6 for Windows and
Mac
IrfanView for Windows Review
JAlbum Free Web Photo Album
Generator (Multi-Platform)
Paint.NET Free Photo Editor for
Windows

Picasa Free Digital Photo Software for
Windows and Linux
Windows Live Photo Gallery
Wink Tutorial and Presentation Creator
Xee for Mac Image Viewer
XnView - Free Multi-Platform Viewer
Free Image Viewers and Browsers for
Windows
Free Image Viewers and Browsers for
Macintosh
Free Screen Capture Tools for Windows
More Free Graphics Software

Reference: Articles

- Chick, Ken, "Seamless Aluminum Backdrop," Scale Rails, October 2006.

- Dolkos, Paul J., "Making Realistic-looking Buildings From Photos and Plastic," Model Railroader, May 2012.

- Johnson, Tom, "Continue Your Roads Into the Backdrop," Model Railroader, October 2010.

- Pryke, John, "Expanding Horizons With Basic Photo Backdrops," Model Railroader, July 2012.

- Seeborg, Pelle K., "Using Photos to Make A Panoramic Backdrop," Model Railroader, July 2012.

- Shindledecker, Greg and Angel, "Seamless Aluminum Backdrops Revisited," The Philadelphia Dispatcher (newsletter of the Philadelphia Division, NMRA), October 2011

Reference: Books

- **How to Build Realistic Model Railroad Scenery**
  - ☐ **Frary, Kalmbach, 1982**
- **Scenery Tips and Techniques**
  - ☐ **Kalmbach Books, 1989**
- **Scenery for Model Railroads, Dioramas, & Miniatures (3rd Ed.)**
  - ☐ **Schleicher, Krause Publications, 1999**
- **Building City Scenery for Your Model Railroad**
  - ☐ **Pryke, Kalmbach, 2000**
- **Scenery for Your Model Railroad From Backdrop to Tabletop**
  - ☐ **Danneman, Kalmbach, 2001**
- **Painting Backdrops for Your Model Railroad**
  - ☐ **Mike Danneman, Kalmbach, 2008**