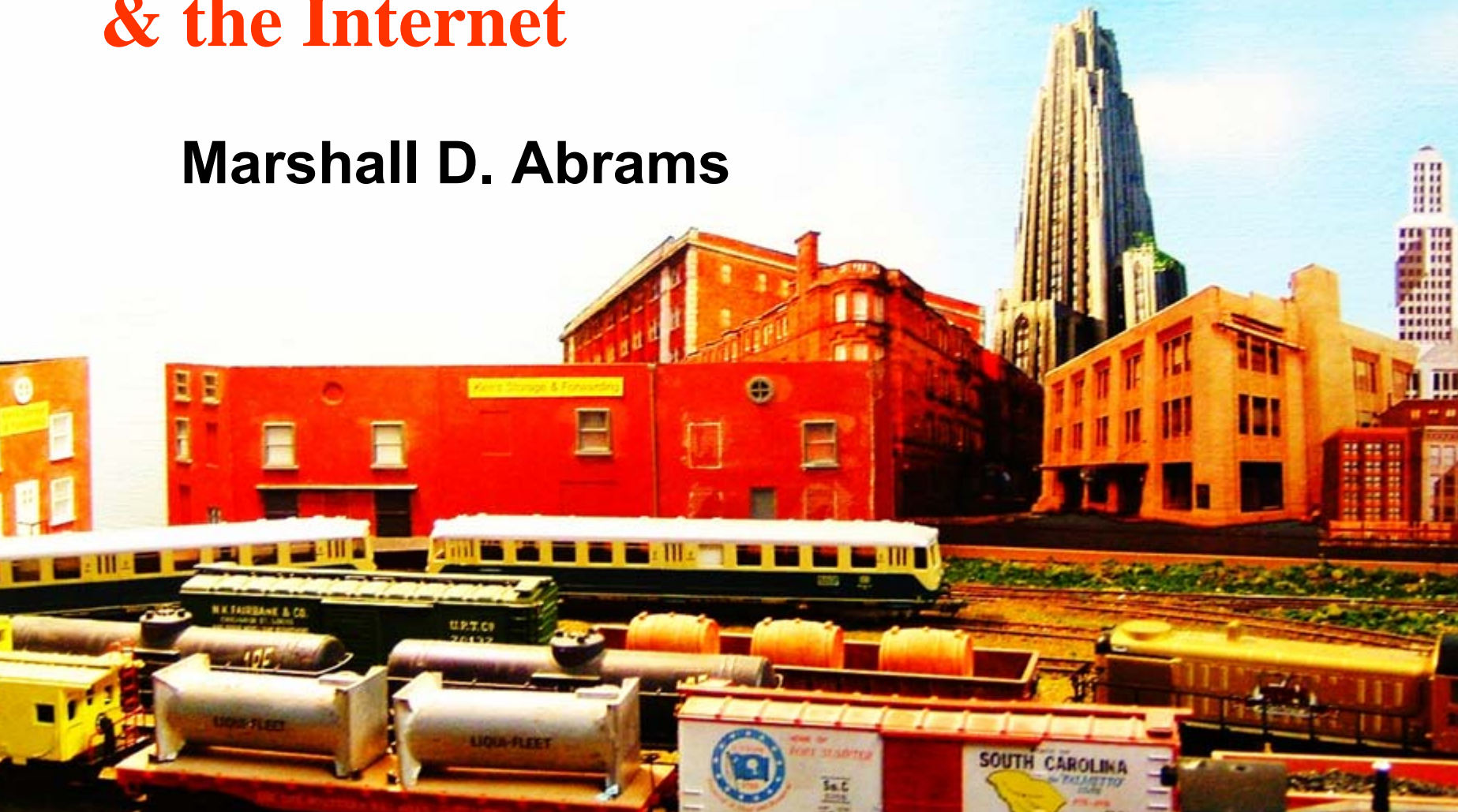


Background Buildings Using Your Computer & the Internet

Marshall D. Abrams



Available in full color at
<http://www.trainweb.org/BackdropFigures/>

Visit the Abrams Railroad Empire at
http://mywebpages.comcast.net/abrams_railroad/

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
- ◆ Download background skylines, structures, ads & more
<http://www.gatewaymra.org/download.htm>



Commercial Urban Backdrops (1/2)

- ◆ **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 (2/2)

- ◆ Backdrop murals canvas for model railroad layouts
<http://www.backdropwarehouse.com/indexbdwh.htm>
<http://www.backdrops4models.com/indexbd4m.htm>



- ◆ Railroad Scenes <http://www.railroadscenes.com/>



Using Commercial 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**
- ◆ **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**



On-Line Backdrop Painting Ideas

- ◆ The Layout Design Primer, Backdrops and Backdrop Painting
[http://ldsig.org/wiki/index.php/Backdrops and Backdrop Painting](http://ldsig.org/wiki/index.php/Backdrops_and_Backdrop_Painting)
- ◆ Backdrop Painting Know-How
<http://www.tttrains.com/tips/bkdrp.htm>
- ◆ Tips for Painting Clouds
<http://www.tttrains.com/tips/clouds.htm>
- ◆ Building and painting backdrops
Kalmbach PDF (14 pages, 928 KB) \$8.95
<http://store.yahoo.com/kalmbachcatalog/mrpdf013.html>
- ◆ Painting Backdrops with Ease
http://www.sierrascalemodels.com/Art_Paint.htm



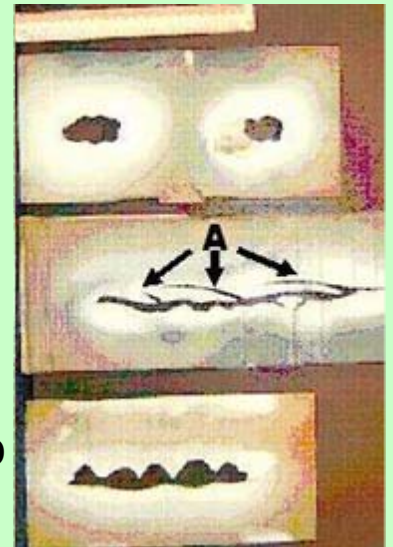
Books

- ◆ **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 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.jsp?id=15-66-0>
 - 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/>
- ◆ Smithsonian Institution <http://smithsonianimages.si.edu/>
- ◆ Great Buildings <http://www.greatbuildings.com/>
- ◆ Image Collections for Architectural History
<http://www.brynmawr.edu/Acads/Cities/imgb/chartnn.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

- Google images — search for what you want
<http://images.google.com>
- Yahoo image search
<http://images.search.yahoo.com/>
- Alta Vista image search
<http://www.altavista.com/image/>

□ 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

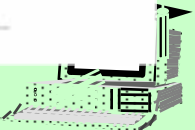
- ◆ Register on auction sites (such as ebay <http://www.ebay.com/>)
 - Postcards, photos, pictures
 - Many auction items contain pictures
 - Search for your interest (e.g., Pittsburgh)
 - Save search so that “hits” are emailed to you
 - Search: **pittsburgh –pirates –steelers**
 - Click on: **Add to 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](#)

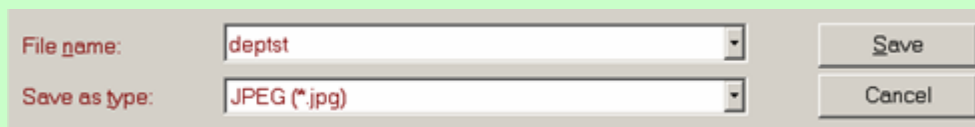


[U.S.S. Pittsburgh 1920
Thanksgiving Invitation Menu"OB"](#)
\$3.95 (0bids)
Time Left: 6d 22h 2m
[Add to watch list](#)



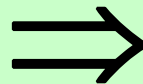
Using a Picture from the Internet

- ◆ 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



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



- ◆ Some unwanted background can be cut away



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**
<http://www.trains.com/mrr/default.aspx?c=a&id=388>
- ◆ **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 (2/8)



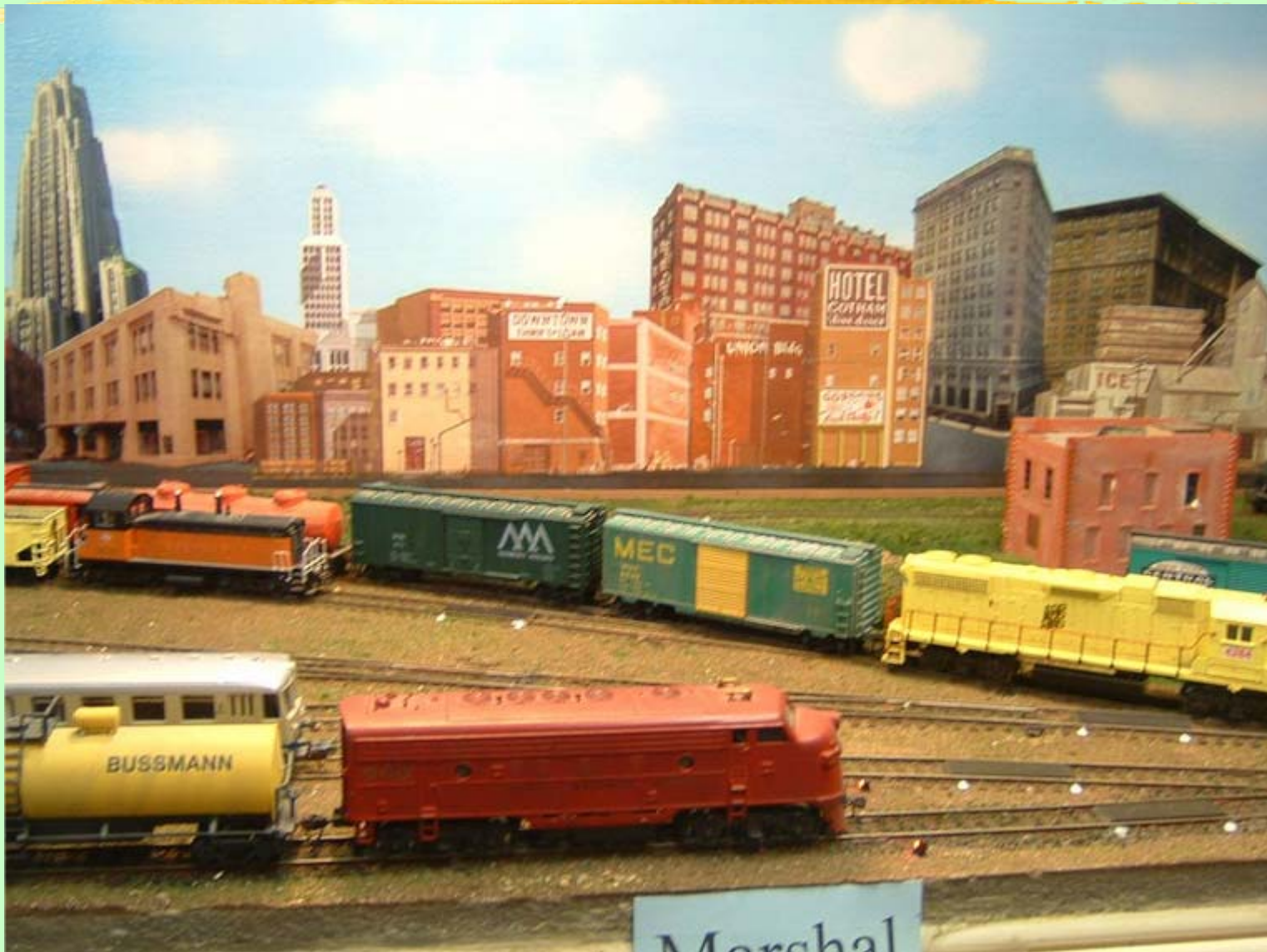
Views of the Result (3/8)



Views of the Result (4/8)



Views of the Result (5/8)



Views of the Result (6/8)



Views of the Result (7/8)



Views of the Result (8/8)



Reference: Top Free or Shareware Photo Editors (1/2)

- 1) GIMP for Windows <http://www.gimp.org/windows/>
popular open-source image editor originally developed for Unix/Linux. Often lauded as the "free Photoshop," it does have an interface and features similar to Photoshop. Steep learning curve.
- 2) GIMP for the Mac runs under the X11 environment (part of OS X)
<http://www.gimp.org/macintosh/>
- 3) Serif PhotoPlus (Windows) <http://www.freeserifsoftware.com>
version 6 features an export optimizer, editable text, image slicing and image maps, selection tools, smart shapes, and image enhancement tools.
- 4) Pixia (Windows) <http://park18.wakwak.com/~pixia/>
features custom brush tips, multiple layers, masking, vector- and bitmap-based drawing tools, color, tone, and lighting adjustments, and multiple undo/redo
- 5) Ultimate Paint (Windows) <http://www.ultimatepaint.com>
available in both shareware and freeware versions for image creation, viewing, and manipulation



Top Free or Shareware Photo Editors (2/2)

- 6) PhotoFiltre (Windows) http://photofiltre.free.fr/frames_en.htm
fairly limited in features; offers a simple, but elegant user interface and a lot of one-click image adjustments, filters, and effects.
- 7) VCW VicMan's Photo Editor (Windows)
<http://www.vicman.net/vcwphoto/index.htm>
offers a variety of painting and editing tools and features including a text tool, gradients, selections by color or region, color replacement, editing in any scale, special effects and so on
- 8) ImageForge (Windows) http://www.cursorarts.com/ca_imffw.html
image editor with painting and editing tools. Allows you to import images from scanners and digital cameras, apply special effects filters, and create photo albums and slideshows
- 9) GraphicConverter (Mac) <http://www.lemkesoft.de/en/index.htm>
high power graphic editor, competing with Photoshop in utility & accepts Photoshop plug ins. Quite reasonably priced shareware, One of the most popular shareware applications ever created for the Macintosh.

