



Creating Backdrops Using Pictures, Photographs, and Picture Post Cards

Marshall Abrams

Visit the Port Jefferson Branch, the Long Island RR at

[http://potomac-nmra.org/LayoutTours/
Pollesville_Double_Header/index.html](http://potomac-nmra.org/LayoutTours/Pollesville_Double_Header/index.html)

Visit the Abrams Railroad Empire at

<http://abrams-railroad.potomac-nmra.org/>

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



Physical Backdrop Material

- ◆ Plaster wall — if the layout is against the wall
- ◆ Tempered hardboard — 1/8" x 4' x 8' (Masonite)
 - Smooth surface, easy to paint, doesn't require much support
 - Flexible enough to make broad curves
 - Nails and screws tend to go right though
 - Suggest gluing 1x2 strips to the back for mounting
- ◆ Back side of vinyl sheet flooring — buy odds & ends
 - Does NOT hold its shape over time.
 - Must insure that it is properly supported at the top
- ◆ Aluminum coil — widths 12"-36" length 25' to 50' rolls
 - Flexible enough to make 1" curves
 - Glue to supports or use vinyl "J-channel" to support the upper edge of the aluminum
 - See "Seamless Aluminum Backdrops Revisited" at <http://www.phillynmra.org/wp-content/uploads/Dispatchers/Disp2011-10.pdf>



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

◆ Painting Backdrops with Ease

http://www.sierrascalemodels.com/Art_Paint.htm

- | | |
|---|---|
| □ The sky | □ The paint |
| □ Clouds -- cumulus, cirrus, and status | □ Force perspective |
| □ Fair weather, puffy little clouds | □ If you are not happy with your results, remember you can repaint the wall blue and start over |
| □ Sometimes clouds have rain in them | |



On-Line Backdrop Creation Ideas (2 of 3)

◆ Personal experience Painting Clouds

<http://modelrr.oakviewresources.com/paint.htm>

<http://www.modelersguild.com/articles/scenery-details/backdrop-painting-made-easy>

<http://www.building-your-model-railroad.com/backdrop.html>

<http://www.model-railroad-infoguy.com/scenery-backdrop.html>

<http://model-railroad-hobbyist.com/node/12480>



On-Line Backdrop Creation Ideas (3 of 3)

◆ Typical presentations on You Tube. Search for more.

□ <https://www.youtube.com/watch?v=KSO4-RV2kpg>

11 min – Amorphous clouds using an airbrush. Simple hills - an outline of a distant ridge topped with trees mixed with clear cuts using latex house paint.

□ 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



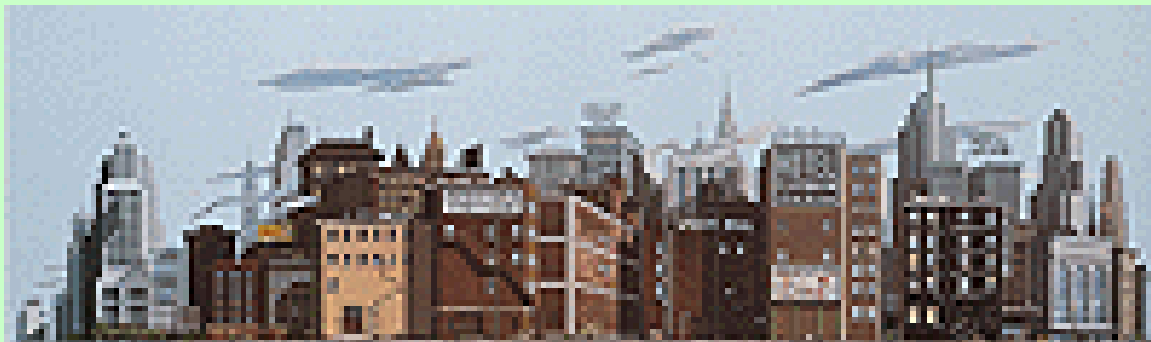
Considerations & Trade-Offs

- ◆ **Cost: photographic backdrops \$5 – 18 / sq ft, non-photo \$3 / sq ft**
- ◆ **Some people think that a backdrop ought to be short on detail in order to not detract from the primary focus of the trains and scenery in the foreground**
 - **Photo backdrop can be more detailed than the modeled scene and overpowers it**
 - **In contrast, others think that the realism of colors, textures, details, and weathering of photos challenge the modeler's skills**
- ◆ **Some think that a well-painted backdrop set a mood in a way that a photo does not**



Commercial Backdrops — Walthers

- ◆ 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>
 - Printed backdrops, 24 x 36“, smooth transition between sheets
 - 17 HO scenes: Mountain to Desert, Desert to Mountain, Drywash Desert, Saguaro Desert, Desert to Country, Country to Desert, Prairie/Grain Elevator, Whistle Stop, Freight Yards, Hotel/Business, The Docks, Country to Eastern Foothills, Eastern Foothills to Country, Eastern Foothills to Country, and City to Country.
 - Less expensive than photo-based backdrops



Commercial Backdrops

— Backdrop Warehouse (1 of 2)

◆ Backdrop Warehouse

<http://www.backdropwarehouse.com>

- ❑ Custom backdrops of unlimited length, height 10 to 68 inches
- ❑ Over 2000 photos, properly scaled for Z through O scales
- ❑ Unique proprietary photography and editing
- ❑ Some people find website confusing and hard to navigate
- ❑ Some people appreciate all the information so that they understand product & investment
- ❑ Super media is a latex saturated, nylon reinforced, 12 mil paper
- ❑ Standard media is 6 mils, not water resistant, not nylon



Commercial Backdrops

— Backdrop Warehouse (2 of 2)

- ◆ Price is based on size not scene
 - Background lower resolution than backdrop
 - Generally 40% discount for groups of 2, same or different

Size	Background	Backdrop
18 in. by 8 ft. N or HO	\$175 (\$14.58/sq ft)	\$225 \$18.75/sq ft)
24 in. by 12 ft. HO	\$180 (\$7.50/sq ft)	\$230 (\$9.58/sq ft)
42 in. by 12 ft O or HO	\$235 \$5.60/sq ft)	\$280 (\$6.67/sq ft)
Shelf Layout 11.25 in. x 36 ft.	\$190 (\$5.63/sq ft)	\$240 (\$7.11/sq ft)
Blemish	\$40 - \$90	



Commercial Backdrops — Backdrop Junction

- ◆ Backdrop Junction <http://www.backdropjunction.com/>
 - Print on non-adhesive vinyl, maximum 42 inches high or adhesive vinyl from maximum height of 44 inches
 - Lengths of 6-8 feet — longer too hard to handle
 - Picture galleries for hills & mountains, city scenes, agriculture, industrial, European, and general scenes
 - Pricing: Adhesive vinyl \$8/sq ft, non-adhesive \$7 (Spring 2016)
 - Volume discounts
 - Custom orders include sizing, blending, mirroring, and unique pictures



Commercial Backdrops — Subway Dreams

- ◆ Subway Dreams <http://subwaydreams.com/index-home.htm>
 - Specializes in subways, New York and Chicago
 - Many other backdrops, custom printed
 - Sizes and prices vary — Example: Industrial Ships in a Harbor, 208” x 24” plain sheet \$80, with adhesive \$113
- ◆ Offers adjustments to backdrops.
 - Change the height and width
 - Delete end portions



Using Individual Buildings (1 of 2)

- ◆ 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
https://www.illinois.gov/ihpa/Preserve/Pages/construct_main_street.aspx
 - Free paper models of buildings from around the world
<http://www.ss42.com/pt-buildings.html>



Using Individual Buildings (2 of 2)

◆ Cardstock cut-out buildings for sale

□ Download & print yourself (sometimes a freebie)

- <http://www.scalemodelplans.com/smp/tutorials/cardstock.html>
- <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)

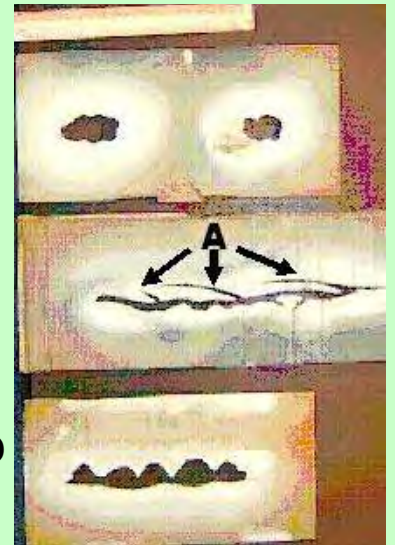
□ Software design program

- 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>
- 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

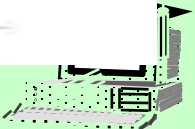
- ◆ Register on auction sites (such as eBay <http://www.ebay.com/>)
 - Postcards, photos, pictures
 - Many auction items contain pictures
 - Search for your interest (e.g., Pittsburgh)
 - Save search so that “hits” are emailed to you
 - Search: **pittsburgh –pirates –steelers**
 - Click on: **Add to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

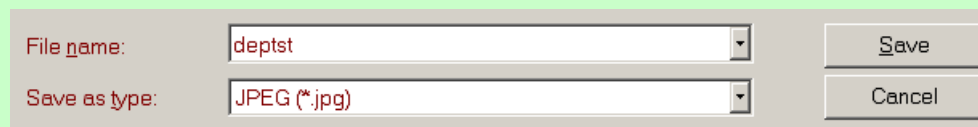
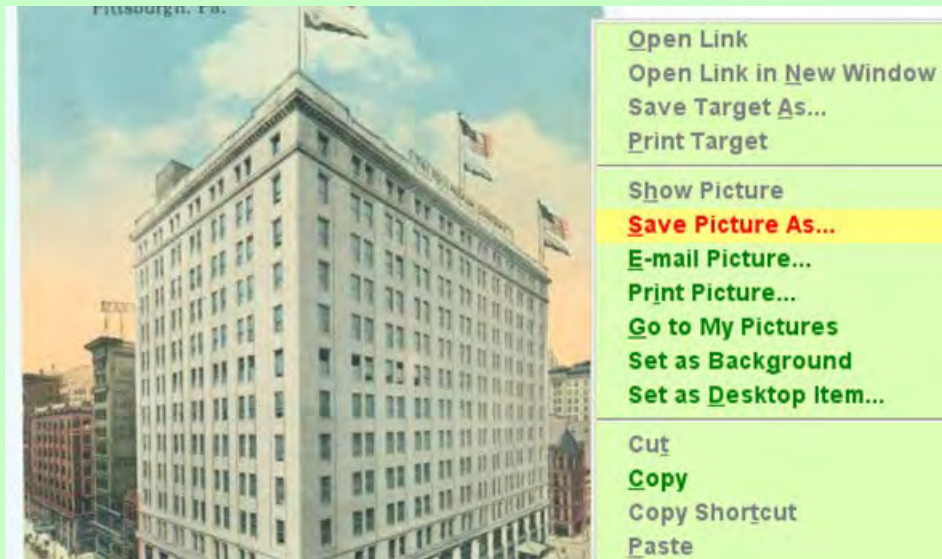


[U.S.S. Pittsburgh 1920
Thanksgiving Invitation Menu"OB"](#)
\$3.95 (0bids)
Time Left: 6d 22h 2m
[Add to watch list](#)



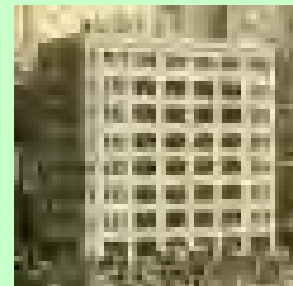
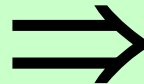
Using a Picture from the Internet

- ◆ 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



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

- 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 (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

- ◆ 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](#)

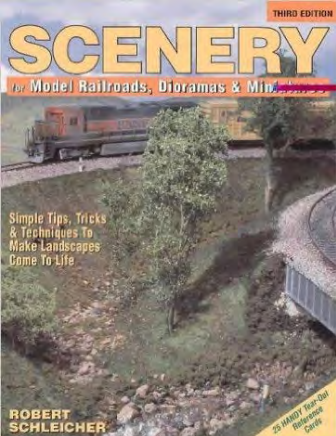
[More Free Graphics Software](#)



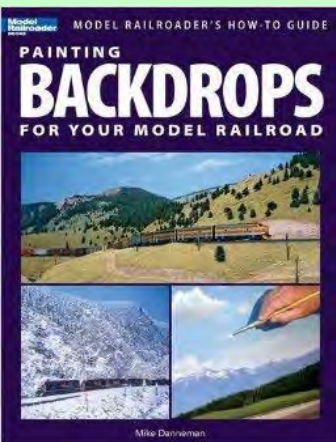
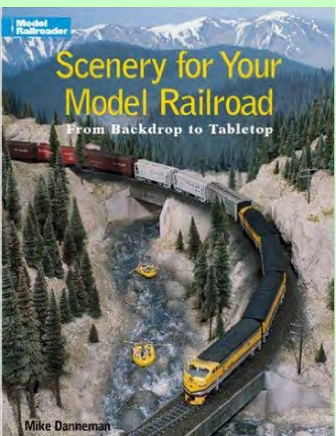
Reference: Articles

- ◆ 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

