At the University of Vermont, we are using images to step back in time and teach students about human/landscape interaction – our work is tied to the Landscape Change Program, which we consider to be a virtual time machine; its 10,000+ images are freely accessible on the web at uvm.edu/perkins/landscape.

We have just received NSF support (Educational Materials Development) to pilot web and classroom-based educational materials founded on the yet-to-be-formally-tested hypothesis that photographic images of landscapes are a more effective catalyst for student engagement and learning than traditional diagrammatic approaches. In other words, does the interest we see anecdotally in the classroom when we use such photographs actually translate into sustained student attention, better learning outcomes, and a more favorable impression of the learning environment as a whole? So far so good, but, how do we know what students really see in the images we show them?

Our work over the next few months, and one of our interests in attending this workshop, is to figure out how we will know better what students actually see when looking at an image. Unless we understand how the body of learners we seek to serve actually sees and interprets images, we won’t be able to design meaningful educational activities or even properly design evaluation exercises to see if the activities we create are working. Our immediate goal is thus to understand better the spectrum of ways in which students see and interpret images documenting the interaction of people and the natural landscape.

During winter term, 2005, the image below was given to 14 UVM students before they started an online class about Vermont landscapes. We have summarized and analyzed their replies.

**Questions:**
- Give us one word that best describes the image.
- What did you see first in the image?
- List everything you see in the image.
- Try and describe a process (action) that some object you see suggests could, is, or was happening.
- Can you identify what season it is?
- What do you imagine is going on just to the right of the image?
- Can you identify what season it is?
- What did you see first in the image?
- Give us one word that best describes the image.
- What do you see first in the image?
- What do you see first in the image?
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- What do you see first in the image?

**Analysis:**
- Human actions and human-centered descriptions dominate student perception.
- Human constructs (road, buildings, and wagon) are seen first, not landscape.
- Processes identified are human actions, most cited is transport/road and not related to current/future use.
- Detailed responses with logical reasoning and storable for season change.
- Many answers deduced from observations in image (road/working).
- Reasonable range of age estimates.

### Most Common Responses

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>What did you see first in the image?</td>
<td>Dirt Road (7)</td>
</tr>
<tr>
<td>List everything you see in the image.</td>
<td>Stores or buildings (5)</td>
</tr>
<tr>
<td>Try and describe a process (action) that some object you see suggests could, is, or was happening.</td>
<td>Dirt roads and wagon wheels suggest people used horse-drawn transport (6)</td>
</tr>
<tr>
<td>Can you identify what season it is?</td>
<td>Late fall (7)</td>
</tr>
<tr>
<td>What do you imagine is going on just to the right of the image?</td>
<td>Dirt Road (7)</td>
</tr>
<tr>
<td>When do you think this image was taken?</td>
<td>Early 1900s (3)</td>
</tr>
</tbody>
</table>

**Image courtesy of Vermont Historical Society**