Molecular Biomedical Informatics
分 子 生 醫 資 訊 實 驗 室

Web Programming
網 際 網 路 程 式 設 計

Photoshop

Probably the most famous design software

- Adobe
  - yet another software monster (brought Macromedia)
  - Dremeweaver, Fireworks, Flash, Illustrator, InDesign, After Effects…
- There are other software
  - CorelDRAW, GIMP, Painter, Paint Shop Pro, PhotoImpact…

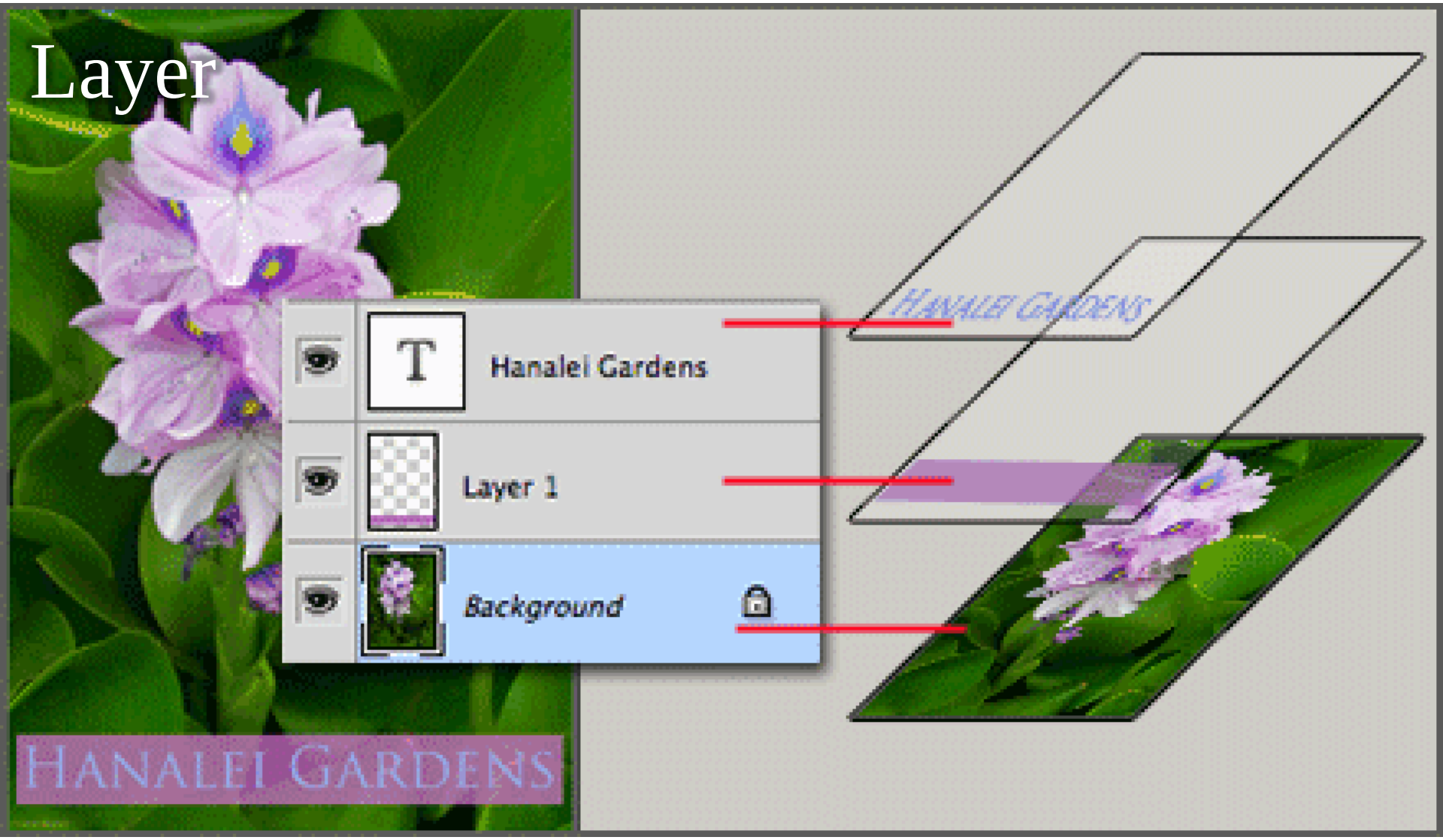
Again,

this class does not teach you the details (I am not capable either) but aims to make you not afraid of them

Various design software

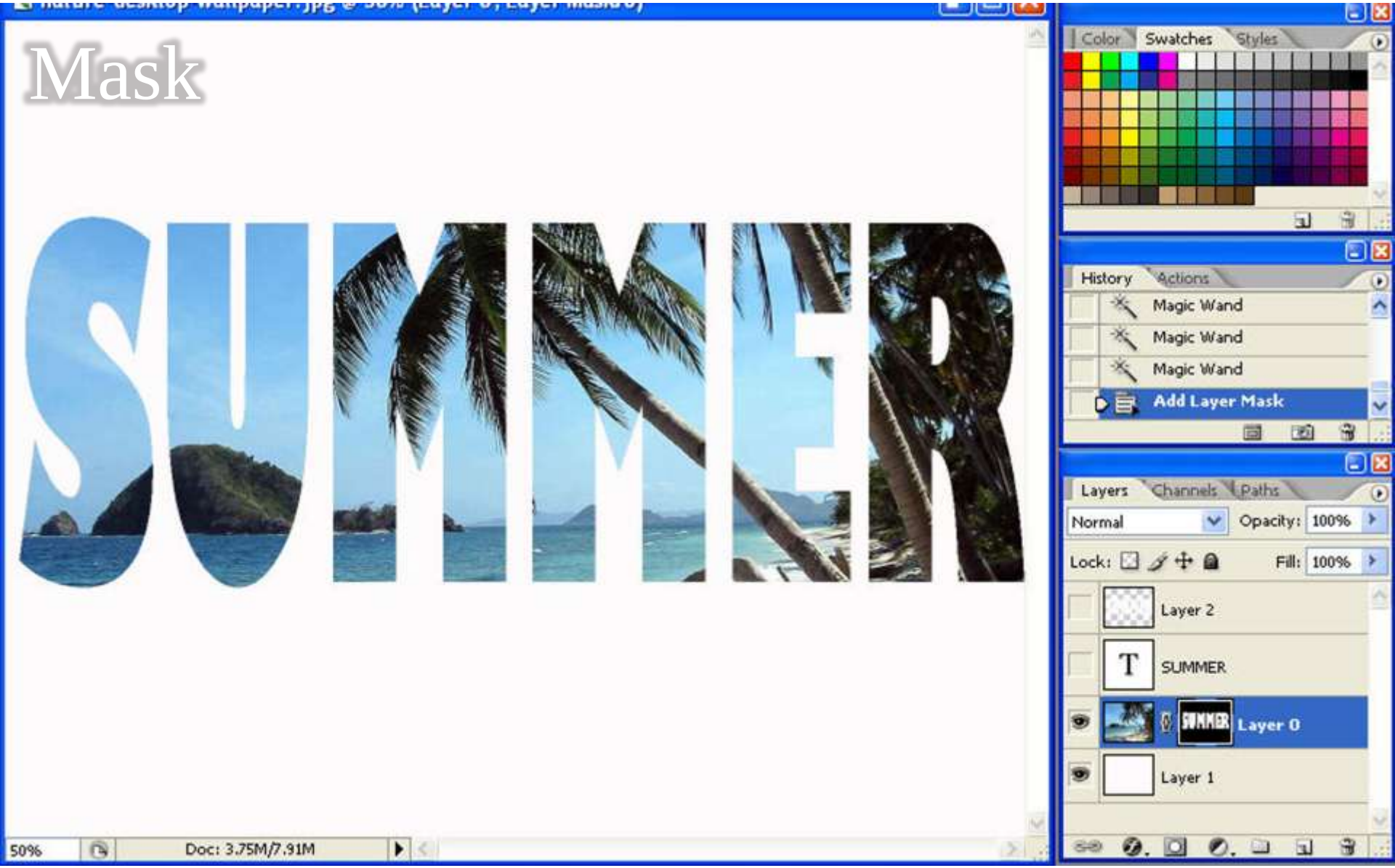
- Have different advantages
  - vector graphics, visual effects (filters), web
  - choose the right/familiar one, somehow like choosing the programming languages
- More hateful, different architectures/design logics
  - layer vs. object, gradient tool vs. gradient object…
  - it is harder than expectation to switch from one to another
  - the experts can do anything with their favorite tool, such as Illustrator vs. Photoshop, so choosing a few you like to dig is enough

Layer

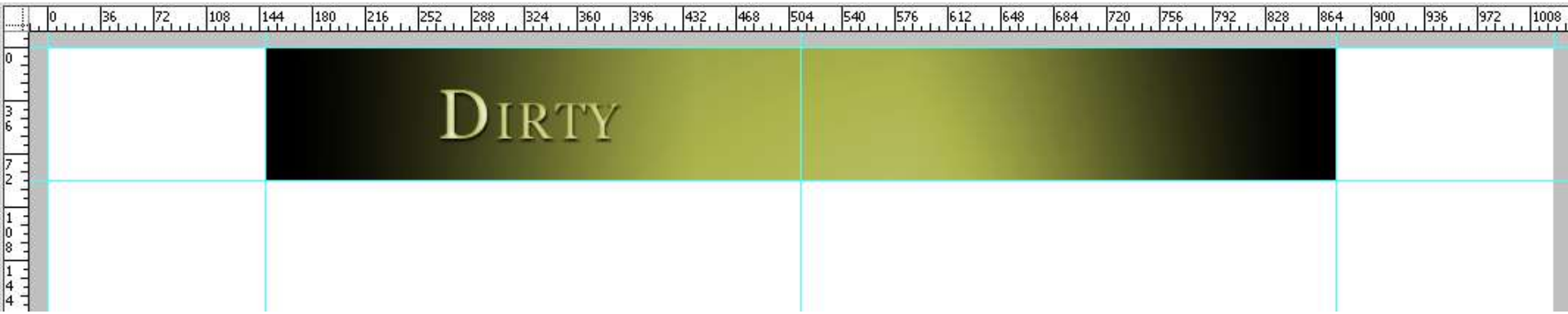


http://www.adobe.com/designcenter/keyconcepts/articles/concept_layer/concept_layer.gif

Mask

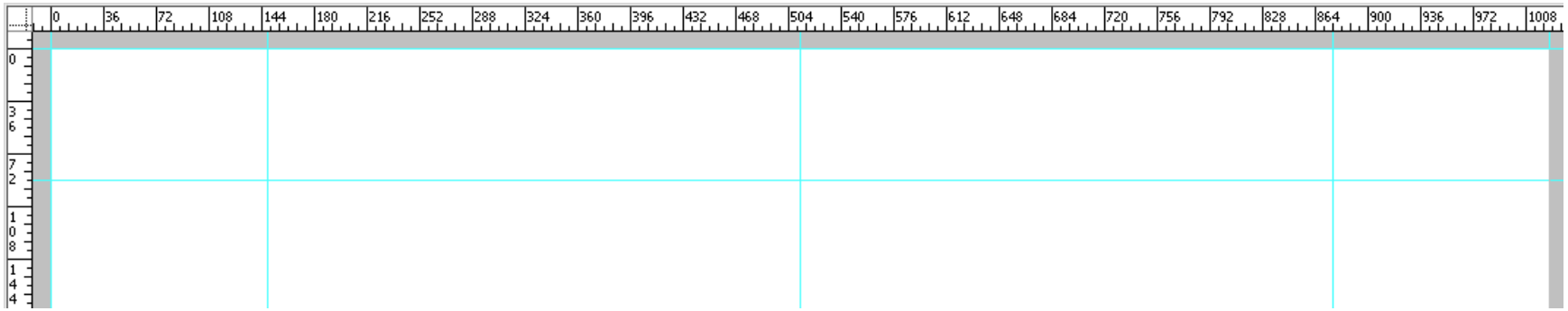


http://rainelaw.files.wordpress.com/2007/10/s-3.jpg


DIRTY

Preparation

- Create a new file (Ctrl+N) with 1024 x 384 px and white background
- Set guides (Alt+V → E)
  - horizontal: 0 and 90px for the top and bottom of both banner and wrap color
  - vertical: 0, 148=(1024-728)/2, 512=1024/2, 876=1024-148 and 1024 for the left, right and center of banner and wrap color



The wrap color

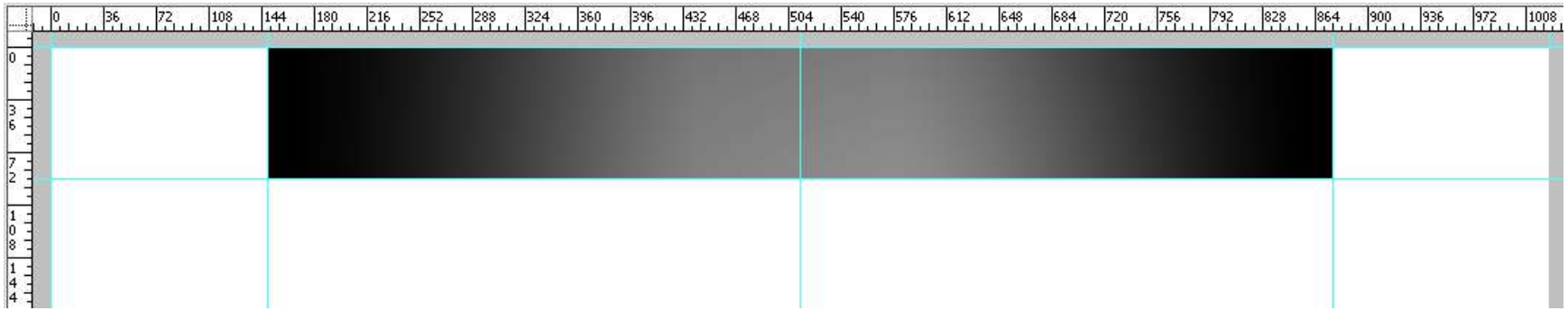
- Add a solid color fill layer (Alt+L → W → O) with name “wrap color” and black color
- Remove layer mask (Alt+L → M → E)
- Add path (U → Options Path → drag wrap color according to guides)
- Add vector mask (Alt+L → V → U)
  - the working path can be discarded since it is no longer needed (Delete when the path is selected)

The gradient

- Add a layer group (Alt+L → N → G) with name "banner"
  - a good practice rather than a necessary step
- Add a layer (Shift+Ctrl+N) with name "light"
- Add layer mask (Alt+L → M → R)
- Choose gradient tool (G, sometimes Shift+G is required)
  - set gradient from white center to black flanks
  - make boundary controllable 

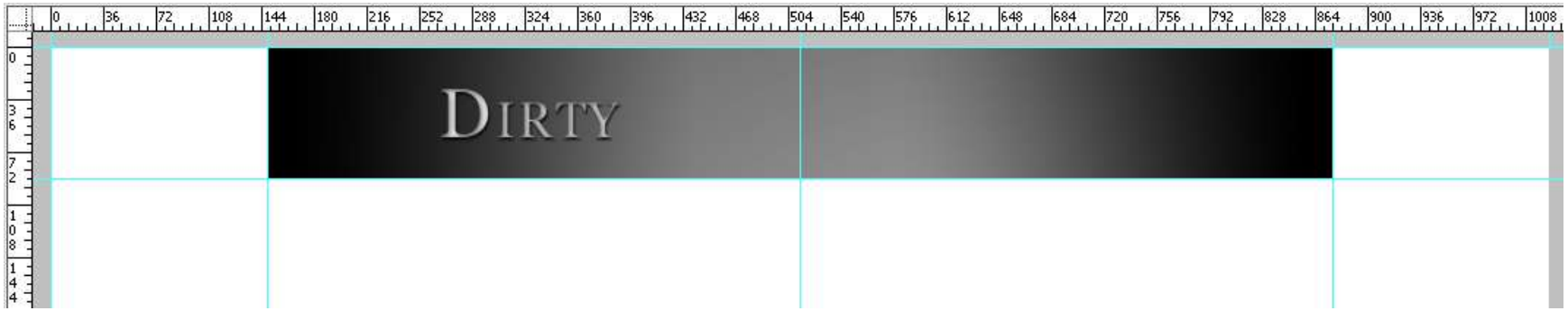
The light

- Select banner (M → drag banner according to guides)
- Fill with white (D → Ctrl+Backspace)
- Lock transparency (/)
  - this operation is useful when the light is re-creating
- Light (Alt+T → Render → Lighting Effects…)
  - try play with the options, which are much easier to understand than expectation



The text

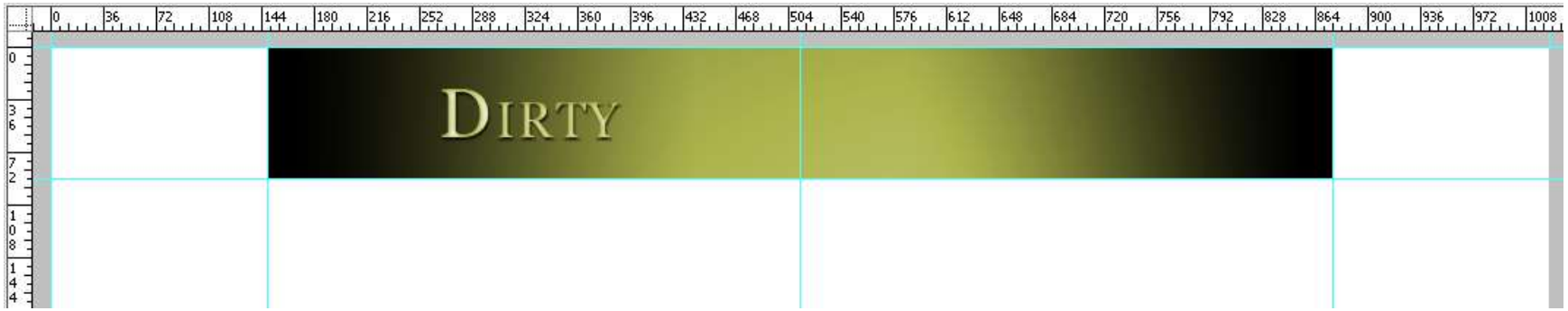
- Choose horizontal type tool (T)
  - set font, this tutorial uses white 48pt Georgia font and small caps
  - type text
- Layer style
  - drop shadow (Alt+L → Y → D)
  - inner shadow (Alt+L → Y → I)



Adjustment

- Try adjust the wrap color
- Adjust the blending mode
  - Photoshop Blending Modes: Beginner's Tips and Tricks
- Adjust the inner shadow

- Add an adjustment layer (Alt+L → J → H)



Techniques in this example

- Fill layer
- Layer mask (raster vs. vector)
- Vector objects
- Layer group
- Gradient tool
- Lock transparency
- Filter
- Text
- Layer style
- Blending mode
- Adjustment layer

- Many techniques are not necessary but make you easy to adjust

A good start point

- Layers, Got to Love Them
- Blending is Fun
- The Lifesaver Adjustment Layers

- There are astronomical tutorials for Photoshop, where Basix is a very good series

Any Questions?

About Photoshop

The second part of this slide

Design a jQuery plugin

jQuery plugin

- Did you want build your own jQuery plugin so that other people can use it with simply `jQuery(…).plugin_name()`?
- Remember, it is just a JavaScript
  - you can design a non-plugin version first
  - the transformation to the plugin version is defined by jQuery, so just memorize it
  - actually the transformation design is reasonable, intuitive and simple

Non-plugin version

- ```
  $('ul li:even').addClass('even');
  $('ul li').hover(function(){
     $(this).animate(
          {marginLeft:'20px'},
          {queue:false,duration:300}
     )},function(){$(this).animate(
          {marginLeft:'0'},
          {queue:true,duration:300}
  )});
  ```
- We want it to be something like this:
  ```
  $('ul').animenu({shift:20});
  ```
  ```

Plugin structure

- Plugins/Authoring
-
```
;(function($,undefined){
    var plugin='animenu';
    $.fn[plugin]=function(opt){
        var opt=$.extend({},$.fn[plugin].dft,opt);
        return this.each(function(){
            var $el=$(this);
            // do something here
        });
    };
    $.fn[plugin].dft={}; // publicly accessible
})(jQuery); // self executing anonymous function
```
- Since `jQuery` is an object and we want to use `jQuery.plugin_name()`, the only thing to do is to set the `plugin_name` property of `jQuery`

Tips

- Every jQuery plugin sits in its own JavaScript file, and is normally named using the following pattern
  - jquery.plugin_name.js
  - jquery.plugin_name.min.js
  - jquery.plugin_name-version.js
  - jquery.plugin_name-version.min.js
- A self executing anonymous function that wraps the entire plugin gives the plugin a private scope to work in
- By passing jQuery into the function, the $ will equal jQuery inside the function even if $ means something different outside the plugin
- Private and exposed functions
- Try google ‘javascript closure’

Options

- Accept an options argument to control plugin behavior
- A basic object for default options
- Extending the options with defaults
- Provide public access to the default plugin options
- We are utilizing the fact that functions are first-class objects in JavaScript
  - like any other object, functions can be assigned properties
  - since we have already claimed the `$.fn.plugin_name`, any other properties or functions that we need to expose can be declared as properties on it

The jQuery plugin checklist

- Useful when you are relatively familiar with jQuery plugin development

- Name your file jquery.plug_in.js
- All new methods are attached to the `jQuery.fn` object, all functions to the `jQuery` object
- Inside methods, `this` is a reference to the current `jQuery` object.
- Any methods or functions you attach must have a semicolon (;) at the end, otherwise the code will break when compressed
- Your method must return the `jQuery` object, unless explicitly noted otherwise
- Use `this.each` to iterate over the current set of matched elements
- Always attach the plugin to `jQuery` instead of `$`, so users can use a custom alias via `noConflict()`

References

- Design pattern
  - jQuery Plugin Design Patterns: Part I
  - A Plugin Development Pattern
  - Essential jQuery Plugin Patterns
- Tutorials of the first jQuery plugin
  - A Really Simple jQuery Plugin Tutorial
  - Tutorial: Creating a jQuery plugin
  - Building Your First jQuery Plugin
- Tutorials of practical jQuery plugin
  - Simple Effects for Drop-Down Lists
  - the quality of tutorials in CODROPS and nettuts are good
  - the workflow is similar and the creativity is much more important

Any Questions?

Today’s assignment
今天的任務

Design logo or a jQuery plugin

- Design the logo(s) for your site/team by design software. If all of your team members hate graphic works, please develop a new jQuery plugin (you can just wrap some existing function of your site).
- Reference
  - Basix
  - CODROPS
- Your web site (http://merry.ee.ncku.edu.tw/~xxx/cur/, ex11) will be checked not before 23:59 12/30 (Sun). You may send a report (such as some important modifications) to me in case I did not notice your features. Or, even better, just explain your modifications in the homepage.

Appendix
附錄

Schedule of the following weeks

Date	TODO
2012/12/24	
2012/12/31	
2013/01/07	
2013/01/14	
2013/01/21	