More HTML5 Canvas Rendering

Fonts & Text Rendering

Rendering Text

1. Specify the font
2. Measure the text
3. Render the text

   - Specify styles
   - Translate → Rotate → Translate (if rotation is desired)
   - Draw

Specify a Font

- Fonts are specified in the same way as CSS fonts
    - 32px arial
    - italic 32px arial
    - italic bold 32pt arial
    - 32pt arial
    - small-caps 32pt arial

```
context.font = 'small-caps 64px arial';
```

Measuring the Font/Text

- Why?
  - Font rendering is one line at a time, no wrapping, etc
  - Want to center or position
- How
  - `context.measureText('This is my text')`
    - This only provides a "width"
    - There are other properties, but only Chrome supports them in experimental mode (requires user to set option)

Measuring the Font/Text

```
context.save();

context.font = font;
let width = context.measureText(text).width;

context.restore();
```

```
context.save();

context.font = font;
let height = context.measureText('m').width;

context.restore();
```

Render the Text

```
context.save();

context.font = '64px arial';
context.fillStyle = 'rgba(150, 0, 0, 1)';
context.strokeStyle = 'rgba(255, 0, 0, 1)';
context.textBaseline = 'top';

context.translate(pos.x + width / 2, pos.y + height / 2);
context.rotate(rotation);
context.translate(-(pos.x + width / 2), -(pos.y + height / 2));

context.fillText(text, pos.x, pos.y);
context.strokeText(text, pos.x, pos.y);

context.restore();
```