…[just one miniscule tableau from **why's (poignant) guide to ruby**]…

You Are A Rabbit, UNTIL!

In this game, you are a rabbit who is going to die. A dragon is going to do it. Deep in Dwemthy's Array.

```ruby
class Dragon < Creature
  life 1340      # tough scales
  strength 451   # bristling veins
  charisma 1020  # toothy smile
  weapon 939     # fire breath
end
```

More on this code in a moment.

Please, never ask who Dwemthy is. Obviously he is a mastermind and would never disclose his location or true identity. He has sired dynasties. He has set living ogres aflame. Horses everywhere smell him at all times. Most of all, he knows carnal pleasures. And to think that this...

This is his Array.
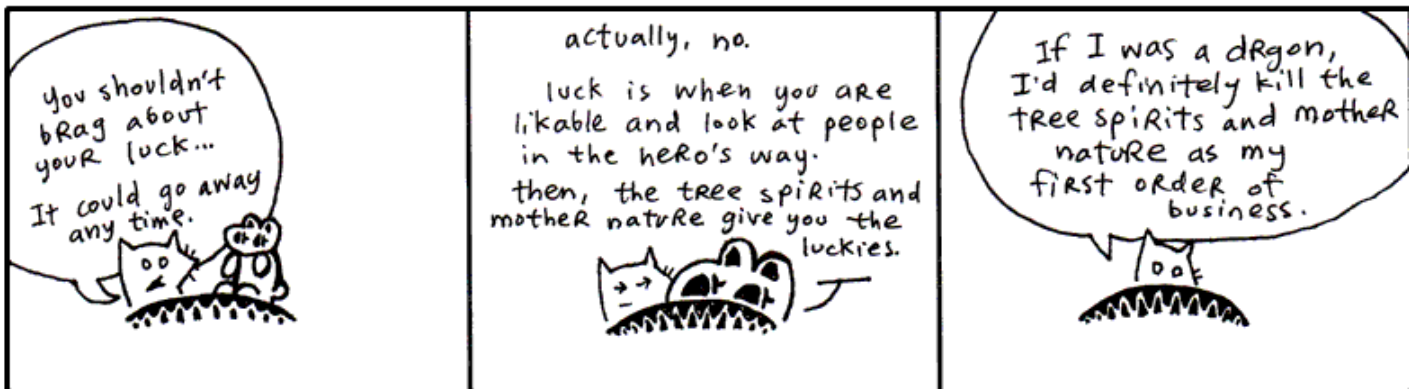
A scalding SEETHING LAVA infiltrates the cacauphonous ENGORGED MINESHAFTS deep within the ageless canopy of the DWEMTHY FOREST... chalky and nocturnal screams from the belly of the RAVENOUS WILD STORKUPINE... who eats wet goslings RIGHT AFTER they've had a few graham crackers and a midday nap... amidst starved hippos TECHNICALLY ORPHANED but truthfully sheltered by umbrellas owned jointly by car dealership conglomerates... beneath uncapped vials of mildly pulpy BLUE ELIXIR... which shall remain... heretofore... UNDISTURBED... DWEMTHY!!!

Contrary to the ill-guided notions of certain introductory comics, DWEMTHY'S ARRAY is not a mind puzzle. It is a short 60 line role-playing game that is played with Ruby metaprogramming. The game comes from chapter six of [Why's (Poignant) Guide to Ruby](#).

If you don't understand Dwemthy's Array, it is Dwemthy's fault. He designed the game to complicate our lives and were it simpler, it would not be the awe-inspiring quest we've come to cherish in our arms this very hour.

Enough Elaborate Metaphor And Sly Juxtaposition, GIVE US THE

CORRESPONDING CODE!

To play, you must have Ruby (the beloved programming language) on your computer. If you don't, you must leave Dwemthy's Array immediately and never speak of it, except with your legal guardian to whom your life is entrusted. If you need Ruby, please visit The Tiger's Vest.

Tread carefully — here is the code for DWEMTHY'S ARRAY!!

```ruby
# The guts of life force within Dwemthy's Array
class Creature

  # Get a metaclass for this class
  def self.metaclass; class << self; self; end; end

  # Advanced metaprogramming code for nice, clean traits
  def self.traits( *arr )
    return @traits if arr.empty?

    # 1. Set up accessors for each variable
    attr_accessor( *arr )

    # 2. Add a new class method to for each trait.
    arr.each do |a|
      metaclass.instance_eval do
        define_method( a ) do |val|
          @traits ||= {}
          @traits[a] = val
        end
      end
    end

    # 3. For each monster, the `initialize' method
    #    should use the default number for each trait.
    class_eval do
      define_method( :initialize ) do
        self.class.traits.each do |k,v|
          instance_variable_set("@#{k}", v)
        end
      end
    end

  end

  # Creature attributes are read-only
  traits :life, :strength, :charisma, :weapon

  # This method applies a hit taken during a fight.
  def hit( damage )
    p_up = rand( charisma )
    if p_up % 9 == 7
      @life += p_up / 4
      puts "[#{ self.class } magick powers up #{ p_up }!]"
    end
    @life -= damage
    puts "[#{ self.class } has died.]" if @life <= 0
  end
```

```ruby
      # This method takes one turn in a fight.
      def fight( enemy, weapon )
        if life <= 0
          puts "[#{ self.class } is too dead to fight!]"
          return
        end

        # Attack the opponent
        your_hit = rand( strength + weapon )
        puts "[You hit with #{ your_hit } points of damage!]"
        enemy.hit( your_hit )

        # Retaliation
        p enemy
        if enemy.life > 0
          enemy_hit = rand( enemy.strength + enemy.weapon )
          puts "[Your enemy hit with #{ enemy_hit } points of damage!]"
          self.hit( enemy_hit )
        end
      end

    end

    class DwemthysArray < Array
      alias _inspect inspect
      def inspect; "#<#{ self.class }#{ _inspect }>"; end
      def method_missing( meth, *args )
        answer = first.send( meth, *args )
        if first.life <= 0
          shift
          if empty?
            puts "[Whoa.  You decimated Dwemthy's Array!]"
          else
            puts "[Get ready. #{ first.class } has emerged.]"
          end
        end
        answer || 0
      end
    end
```

To play, start `irb`. Cut and paste the above code into irb. (You may also save the above code in a file called dwemthy.rb. Then, load with: `require 'dwemthy'`.

Introducing: You.

You may certainly tinker with derivations on this rabbit. But official Dwemthy Paradigms explicitly denote the code — and the altogether character — inscribed below.

```ruby
    class Rabbit < Creature
      traits :bombs

      life 10
      strength 2
      charisma 44
```

```
      weapon 4
      bombs 3

      # little boomerang
      def ^( enemy )
        fight( enemy, 13 )
      end
      # the hero's sword is unlimited!!
      def /( enemy )
        fight( enemy, rand( 4 + ( ( enemy.life % 10 ) ** 2 ) ) )
      end
      # lettuce will build your strength and extra ruffage
      # will fly in the face of your opponent!!
      def %( enemy )
        lettuce = rand( charisma )
        puts "[Healthy lettuce gives you #{ lettuce } life points!!]"
        @life += lettuce
        fight( enemy, 0 )
      end
      # bombs, but you only have three!!
      def *( enemy )
        if @bombs.zero?
          puts "[UHN!! You're out of bombs!!]"
          return
        end
        @bombs -= 1
        fight( enemy, 86 )
      end
    end
```

You have four weapons. I shan't describe them further.

Rabbit Fights ScubaArgentine!

You cannot just go rushing into Dwemthy's Array, unseatbelted and merely perfumed!! You must advance deliberately through the demonic cotillion. Or south, through the thickets and labyrinth of coal.

For now, let's lurk covertly through the grotto of sausage smells. And defeat the ScubaArgentine.

```
class ScubaArgentine < Creature
  life 46
  strength 35
  charisma 91
  weapon 2
end
```

To get the fight started, make sure you've created one of you and one of the ScubaArgentine

```
r = Rabbit.new
s = ScubaArgentine.new
```

Now use the little boomerang!

```
>> r ^ s
```

```
[You hit with 2 points of damage!]
#<ScubaArgentine:0x808c864 @charisma=91, @strength=35, @life=44, @weapon=2>
[Your enemy hit with 28 points of damage!]
[Rabbit has died.]
```

For crying out loud!! Our sample rabbit died!!

Grim prospects. I can't ask you to return to the rabbit kingdom, though. Just pretend like you didn't die and make a whole new rabbit.

The Harsh Realities of Dwemthy's Array AWAIT YOU TO MASH YOU!!

Once you're done playchoking the last guy with his oxygen tube, it's time to enter The Array. I doubt you can do it. You left your hatchet at home. And I hope you didn't use all your bombs on the easy guy.

You have six foes.

```ruby
class IndustrialRaverMonkey < Creature
  life 46
  strength 35
  charisma 91
  weapon 2
end

class DwarvenAngel < Creature
  life 540
  strength 6
  charisma 144
  weapon 50
end

class AssistantViceTentacleAndOmbudsman < Creature
  life 320
  strength 6
  charisma 144
  weapon 50
end

class TeethDeer < Creature
  life 655
  strength 192
  charisma 19
  weapon 109
end

class IntrepidDecomposedCyclist < Creature
  life 901
  strength 560
  charisma 422
  weapon 105
end

class Dragon < Creature
  life 1340      # tough scales
```

```
  strength 451  # bristling veins
  charisma 1020 # toothy smile
  weapon 939    # fire breath
end
```

These are the living, breathing monstrosities of Dwemthy's Array. I don't know how they got there. No one knows. Actually, I'm guessing the IntrepidDecomposedCyclist rode his ten-speed. But the others: NO ONE knows.

If it's really important for you to know, let's just say the others were born there. Can we move on??

As Dwemthy's Array gets deeper, the challenge becomes more difficult.

```
dwarr = DwemthysArray[IndustrialRaverMonkey.new,
                      DwarvenAngel.new,
                      AssistantViceTentacleAndOmbudsman.new,
                      TeethDeer.new,
                      IntrepidDecomposedCyclist.new,
                      Dragon.new]
```

Fight the Array and the monsters will appear as you go. Godspeed and may you return with harrowing tales and nary an angel talon piercing through your shoulder.

Oh, and none of this "I'm too young to die" business. I'm sick of that crap. I'm not going to have you insulting our undead young people. They are our future. After our future is over, that is.

mystify your friends… AND YOURSELF!… by learning the secrets of DWEMTHY'S ARRAY in **why's (poignant) guide to ruby** the internet book of leisurelearning. come on, it's right there.