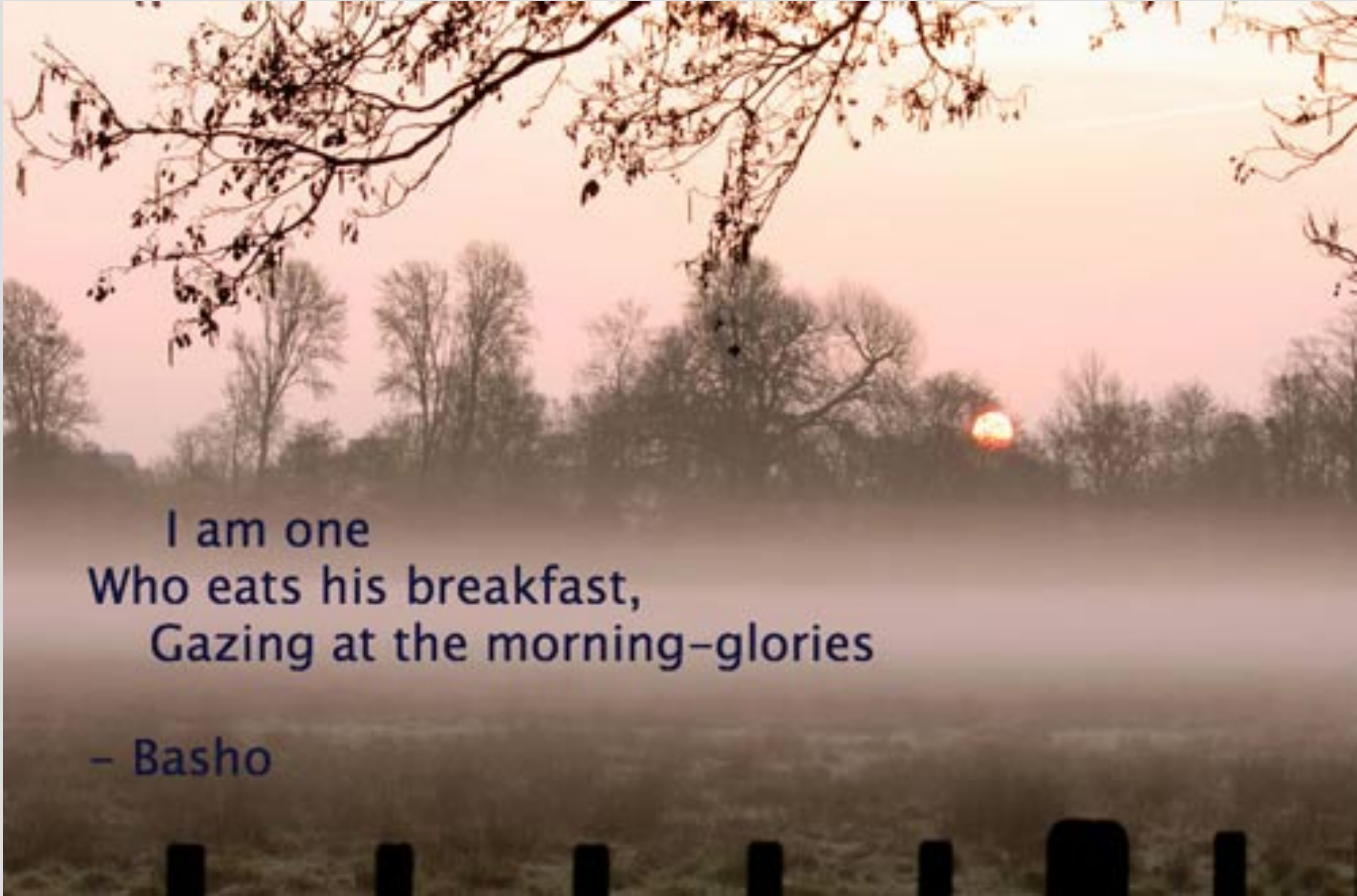


Intro to Programming with JavaScript

- <https://learn.galvanize.com/curriculums/77/articles/5352>

A photograph of a misty morning landscape. The sun is a small, bright orange orb low on the horizon, partially obscured by a line of bare trees. The sky is a pale, hazy pink. In the foreground, there is a grassy field with a white picket fence visible at the bottom. Bare tree branches hang down from the top left corner.

I am one
Who eats his breakfast,
Gazing at the morning-glories

– Basho

Objectives

- Describe what JavaScript is.
- Describe what ECMAScript is.
- Explain why JavaScript is important.
- Name all primitive data types in JavaScript.
- Explain what a variable is.
- Explain the difference between a value and an expression
- Explain the difference between `=`, `==`, and `===`

Objectives (cont'd)

- Explain simple control flow examples using if statements.
- Explain what type conversion is.
- Name all the "falsey" values in JavaScript.

Repetition
is the
mother of
skill. .

Anthony Robbins

[QuotePixel.com](https://www.quotePixel.com)

What is JavaScript?

- a high-level, **dynamic**, **untyped**, and **interpreted** programming language that's primarily used to change how a website looks and behaves when a user interacts with it.
- developed at the Netscape by Brendan Eich in 10 days and was first released in May 1995.

- Dynamic programming language, in computer science, is a class of high-level programming languages which, at runtime, execute many common programming behaviors that static programming languages perform during compilation.

- dynamic vs static?
most dynamic languages are also dynamically typed
- typed vs untyped:

```
// typed (Java)
    for(int i = 0; i < 20; i++){
        do stuff...
    }
```

```
// untyped (JavaScript)
    for(var i = 0; i < 20; i++){
        do stuff...
    }
```


- interpreted vs. compiled?

- interpreted vs. compiled?

An interpreted language is a programming language for which most of its implementations execute instructions directly, without previously compiling a program into machine-language instructions.

JavaScript != Java

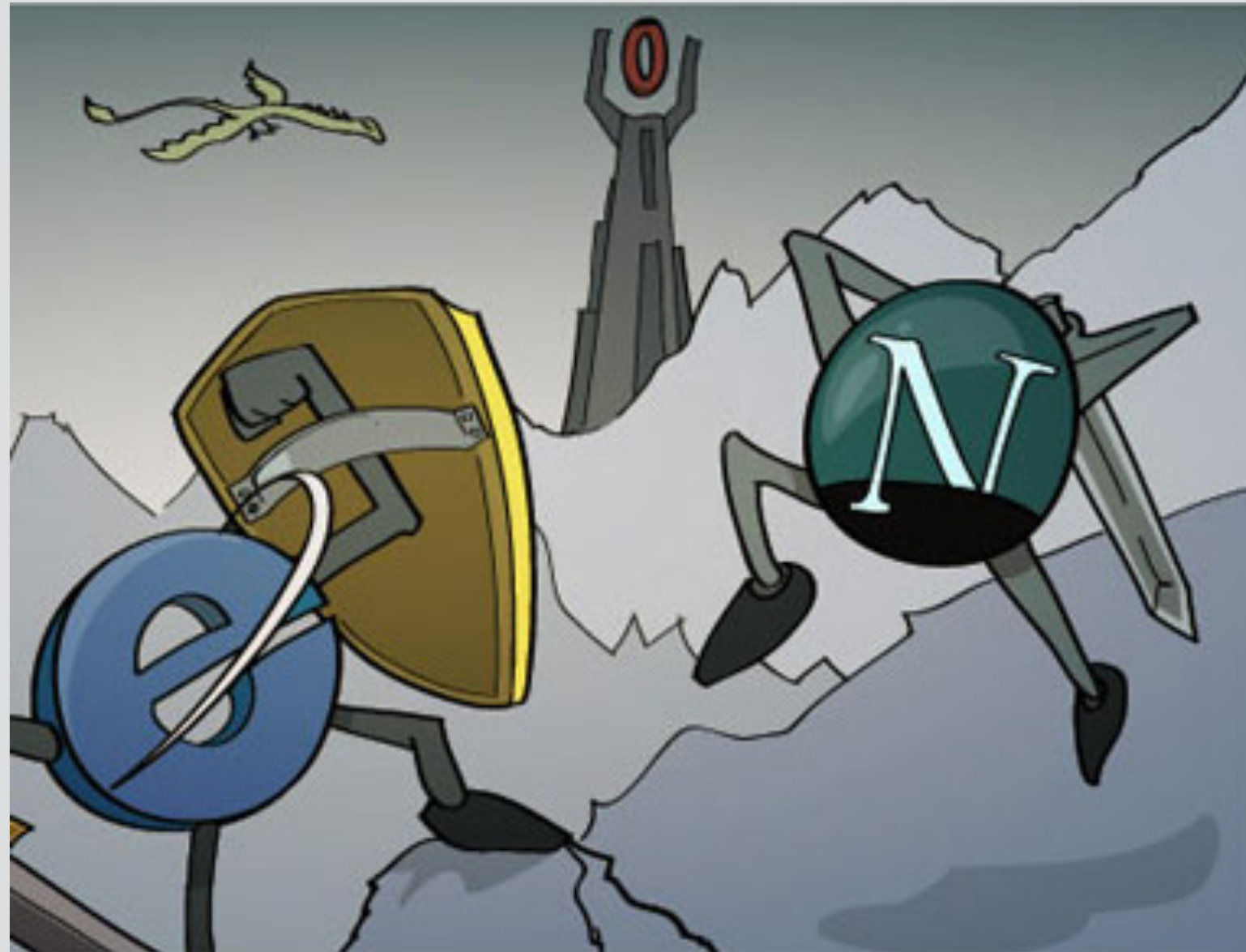
Car != Carpet

(it was a PR maneuver)

What is
ECMAScript?

Why is JavaScript
important? What
does it do?

THE BROWSER WARS




WWWI

- circa 1994
- after Netscape's IPO, Netscape CEO Marc Andreeseen was publicly vocal about his attitude towards Microsoft saying it was at best:
"A bag of poorly debugged set of device drivers"

Sc Science



WWWI I

- circa 2007
browser share up to 2009
- WHY?
 - open source and rapid releases => MDN

- Also...a cool interactive timeline of browser and feature adoption

POP QUIZ

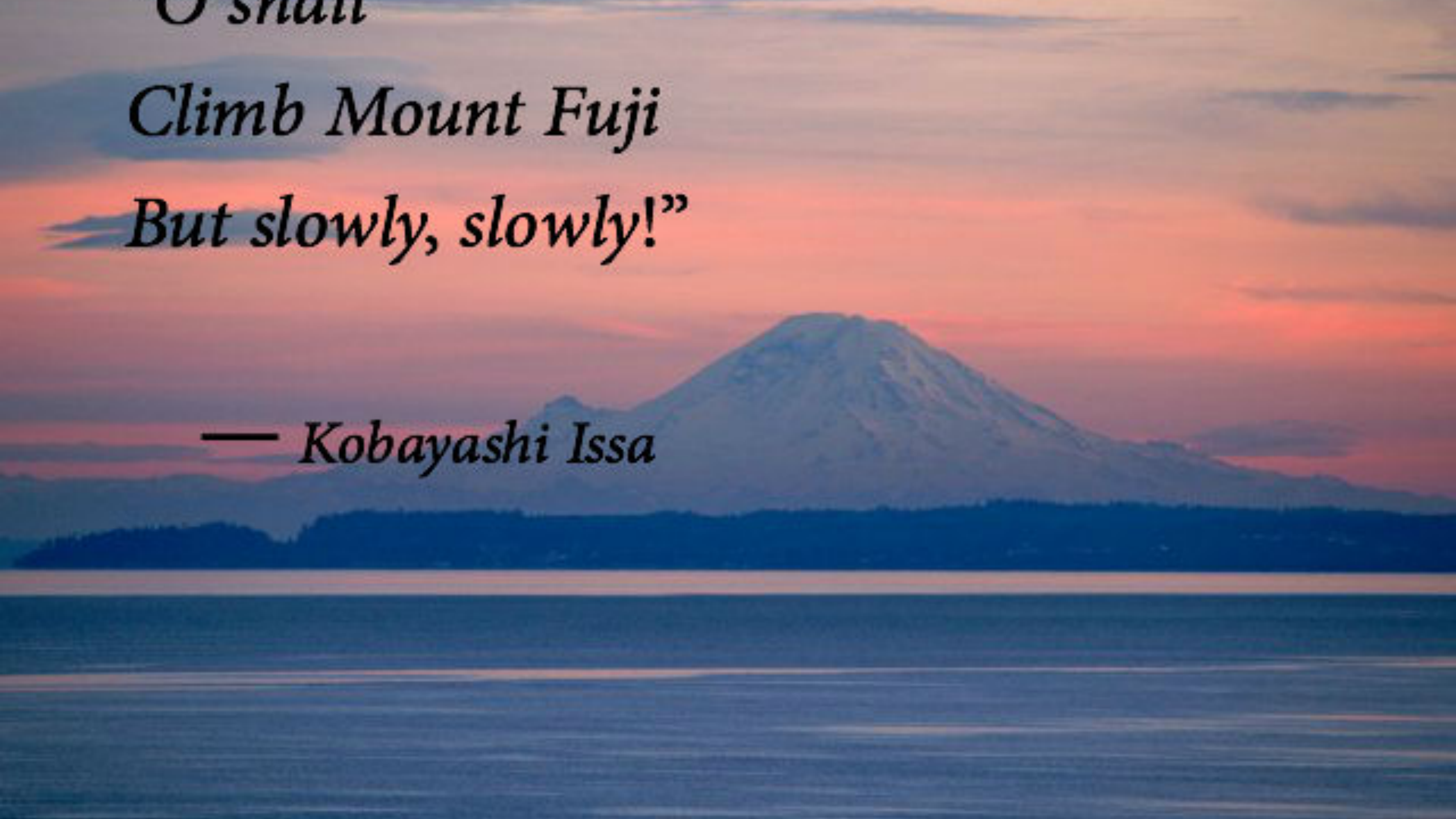
What is the difference
between an expression a
statement?

O shall

Climb Mount Fuji

But slowly, slowly!”

— Kobayashi Issa



Writing JavaScript

COMMENTS?

// COMMENTS

<!-- Comments -->

Data Types in JS

- Primitive (immutable)
 1. Boolean
 2. Number
 3. String
 4. Undefined
 5. Null
 6. Symbol (new in ECMAScript 6)

null and undefined (ewww why?)

- In APIs, null is often retrieved in place where an object can be expected but no object is relevant. When checking for null or undefined beware of the differences between equality (==) and identity (===) operators (type-conversion is performed with the former).

ie)

```
` ``JavaScript
```

```
var me = {
```

```
  fn: 'Matthew',
```


Variables

- start with **letters** , **_**, or **\$**
- make sure not to use keywords!
 - ^ ask for variable definitions

Operators

Arithmetic

- +
- -
- *
- /
- %

(don't you ever forget the global **Math** Object)

Operators

Logical

- `& &`
- `| |`
- `!`

Operators

Assignment vs Equality

- =
- ==
- ===
- !=
- !==

Operators

Relational

- $>$
- $<$
- $>=$
- $<=$

Conditionals a.k.a *control flow*

```
var sky = "full of rainbows";  
  
if(sky == "full of rainbows") {  
    return "It's a magical day";  
} else {  
    return "What's the point of it all?"  
}
```

OR

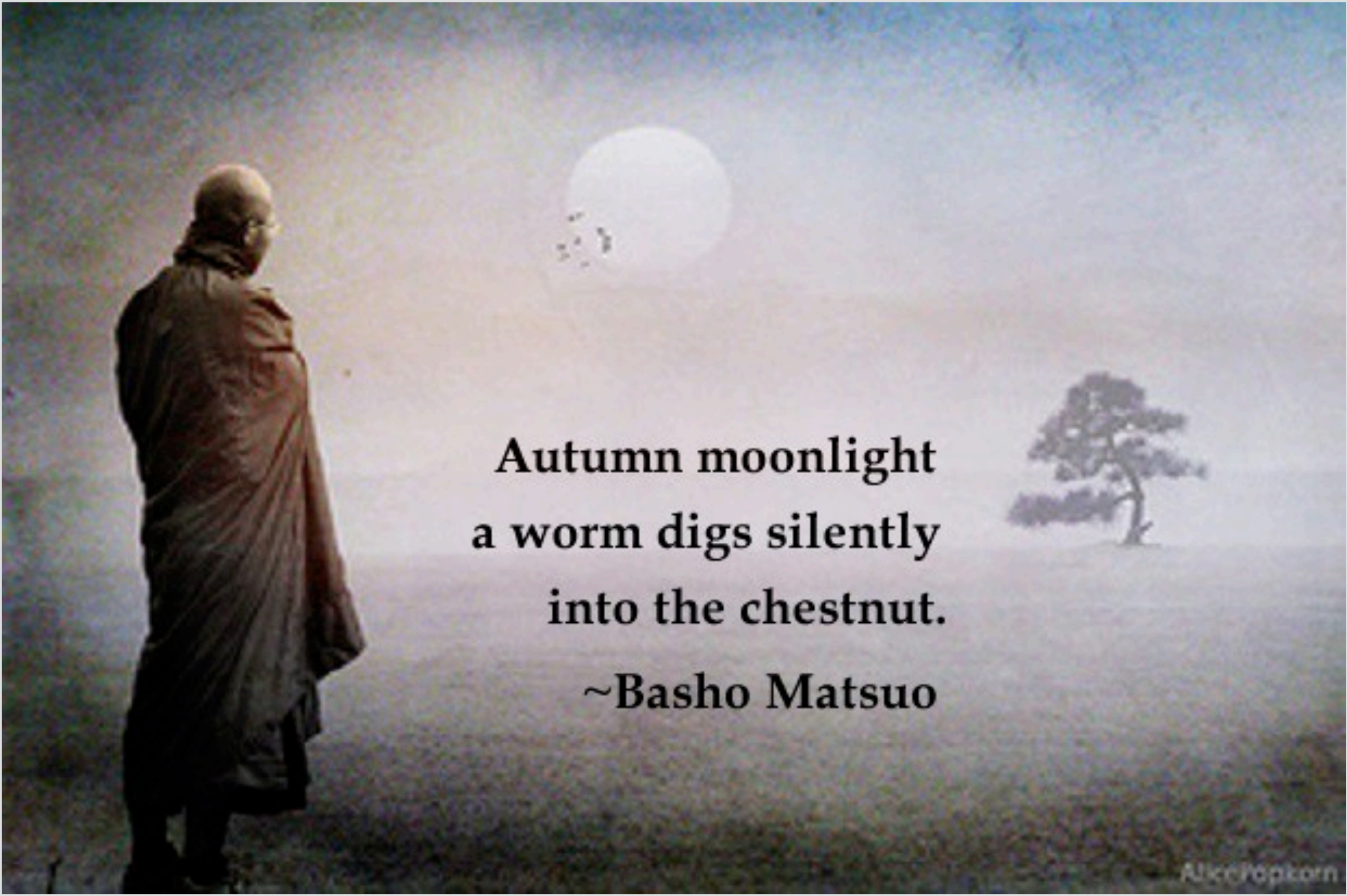
Switch Statements

```
switch (expression) {  
    case value1:  
        //Statements executed when the result of expression matches value1  
        [break;]  
    case value2:  
        //Statements executed when the result of expression matches value2  
        [break;]  
    ...  
    case valueN:  
        //Statements executed when the result of expression matches valueN  
        [break;]  
    default:  
        //Statements executed when none of the values match the value of the expression  
        [break;]  
}
```


Type Conversion || Coercion

helpful site

Truthy && Falsey (not a Stephen
Colbert invention)



Autumn moonlight
a worm digs silently
into the chestnut.

~Basho Matsuo

fin

