

*According to Cain*  
From concept to completion



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## Who am I?

- Jim Nelson
- Software engineer at Internet Archive
- Playing video games since the 1970s
- First intro'd to IF by way of ADVENT / Colossal Caves
- Write traditional fiction

BOOK ONE OF THE BRIDGE DAUGHTER CYCLE



**BRIDGE  
DAUGHTER**  
JIM NELSON

BOOK TWO OF THE BRIDGE DAUGHTER CYCLE

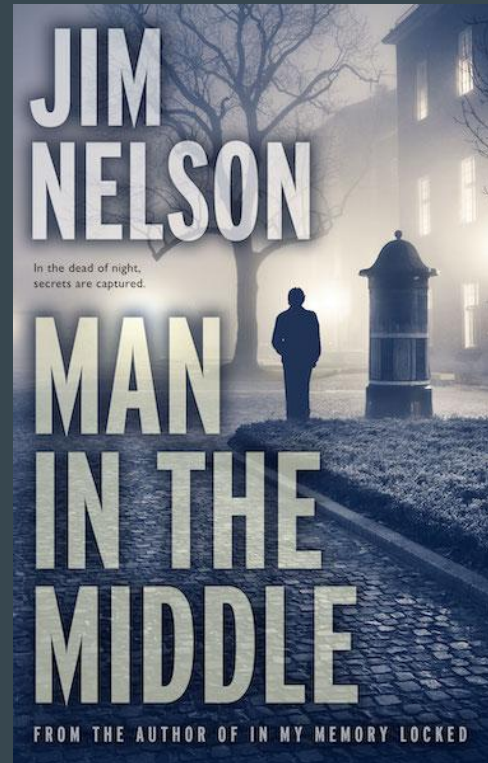
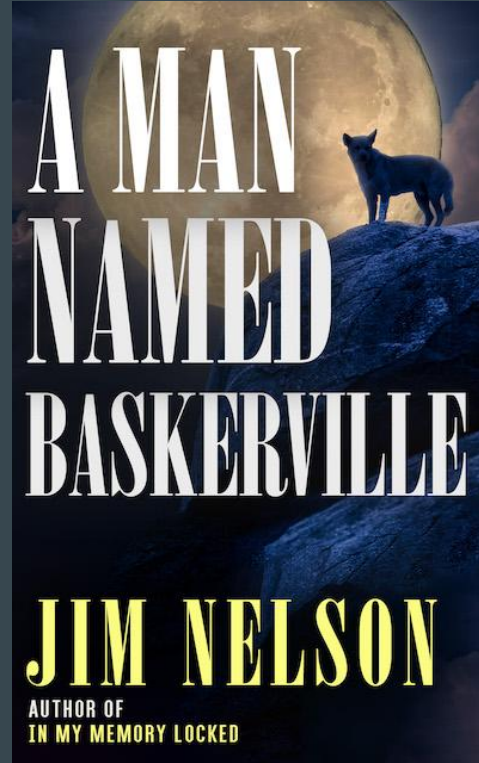
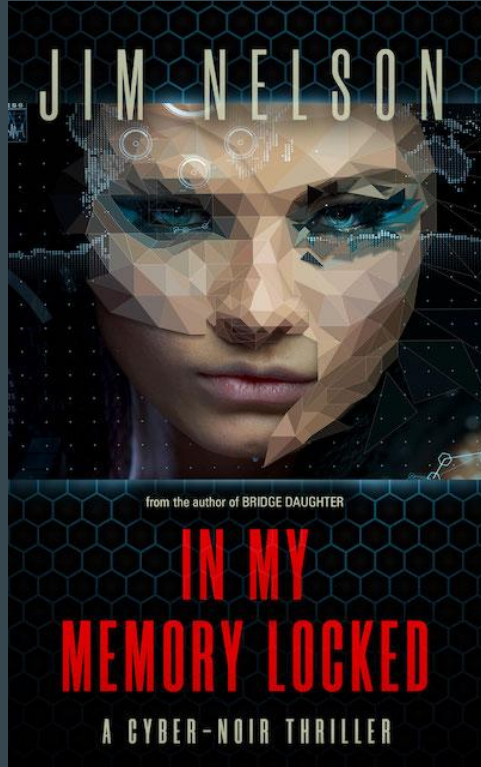


**HAGAR'S  
MOTHER**  
JIM NELSON

BOOK THREE OF THE BRIDGE DAUGHTER CYCLE



**STRANGER  
SON**  
JIM NELSON



**Why give this talk?**

## Why this talk?

“I’ll discuss the formative ideas that led to developing the parser game *According to Cain*...the problems of writing a ‘religious’ mystery game from a secular perspective, using graphics and music in a parser-based game, the restrictions I placed on myself, and the restrictions I found myself faced with.”

Why this talk?

That's all true.

Really, I want to discuss how a traditional story  
became an interactive fiction.

## Why this talk?

I also hope you all get something out of this:

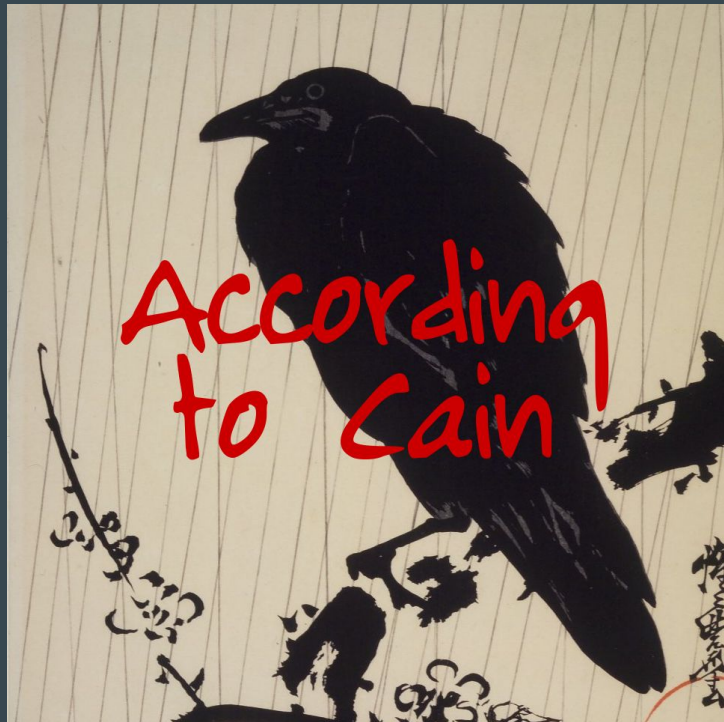
Inspiration to finish a game you've been thinking about

Confidence to develop something you're uncertain about

Fresh ideas to fuel your creativity



## The tale of the tape



Parser-based interactive fiction

Coded between Oct 2021 and Sep 2022

TADS 3 (approx. 17,000 LoC)

IF Comp 2022

IFDB Awards

# Origins

## Origins of *According to Cain*

- Story of Cain and Abel from Cain's point-of-view
- Not modernized, but using literal Genesis story as basis
- Started as short story, then a novella
  - Scenes told in haphazard order
  - No beginning / middle / end
  - Cain's journal—"According to Cain"

## Origins of *Cain*

- Research played a big role in fleshing out the story
  - Book of Genesis—my master narrative
  - Quran, Latter-day Saints' *Pearl of Great Price*
  - Extracanonical texts: *Targum Jerusalem*, *Book of Jubilees*, *The Cave of Treasures*, *The Book of Adam & Eve*
- Never could finish the story—never could find its “emotional center”

## Origins of *Cain*: Book of Genesis

- Adam & Eve expelled from Eden
- Adam & Eve raise Cain, Abel
- Cain works the field, Abel raises livestock
- Cain's offering to God is rejected, Abel's is accepted
- Cain kills Abel—first recorded murder
- Cain is punished to wander the earth the rest of his days

## Origins of *Cain*

- Cain & Abel story resonates
  - Steinbeck's *East of Eden*, Byron, James Baldwin's "Sonny's Blues"
  - Myth of Remus & Romulus, founding of Rome
  - Even *Star Trek's* Kahless & Molor
- The near-universality of the myth kept me dabbling with the story for years

**Not a religious story/game**

**A reinterpretation of a myth**

**And finding within that myth  
my own truth.**



## Origins of *Cain*: Interactive fiction

- Began to think of telling it as an interactive fiction
- First problem: Who does the player play?
  - Abel is murdered—what if it was a mystery story?
  - The detective is sent back to solve a mystery?
  - *Name of the Rose* inspired me to make detective a monk or novitiate

## Origins of *Cain*: A mystery

- A mystery is fun, but it's also an interesting way to tell a story
  - Detective is an outsider looking in
  - Detective can “stir the drink” & bring old injustices to the fore
  - Ross Macdonald: *The Moving Target*, *The Galton Case*
- But the big problem: **Most everyone knows Cain killed Abel**

But there are two everlasting mysteries...

Origins of *Cain*: A mystery

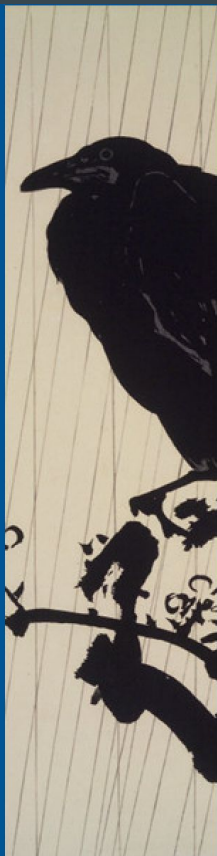
**What is the Mark of Cain?**

Not solving the crime,  
solving the **punishment**

## Origins of *Cain*: Two mysteries

**What is the Mark of Cain?**

**Why did Cain kill Abel?**



**According to Cain**  
An inquiry  
by Jim Nelson

And the LORD had respect unto Abel and to his offering:  
But unto Cain and to his offering He had not respect.

–Genesis 4:4-5, King James Version

Then ALLAH sent a crow searching in the ground  
to show [Cain] how to hide the disgrace of his brother.

–Quran 5:31, Sahih International

“From this time forth...thou shalt be called Perdition.”

–Moses 5:24, Pearl of Great Price

And Cain said unto the LORD,  
“My punishment is greater than I can bear...”

–Genesis 4:13 KJV

# Interactivity

## Interactivity: The “device”

- Successful parser games often require a “device”
- A unique mechanism organic and particular to game
  - *Enchanter*: spell system
  - *What Heart Heard Of, Ghost Guessed*: Emotions as actions
  - *Spider & Web*: tool kit
- Medieval detective, alchemy system based on four humours
  - Mixes substances on surfaces for effects
- Creates additional puzzles: Collecting substances, learning mixtures



## Interactivity: Alchemy

Alchemy became integral to understanding the characters of  
Adam, Eve, Cain & Abel...

## Four humours

**Yellow bile: Choleric nature**

**Workaholic, desperate, obsessive**

**Phlegm: Phlegmatic nature**

**Ruminative, introspective, moody**

**Black bile: Melancholic nature**

**Nostalgic, depressive, listless**

**Blood: Sanguine nature**

**Charming, extrovert, manipulative**

# The family

Adam: The father

Workaholic, desperate, obsessive

Eve: The mother

Nostalgic, depressive, listless

Cain: The older brother

Ruminative, introspective, moody

Abel: The younger brother

Charming, extrovert, manipulative

**This connection between  
the four humours and the  
family's nature was  
serendipitous.**

**Building an interactive  
fiction forced me to  
approach the characters  
from new directions.**

It also helped me find the  
emotional core of the story:

**The Mark of Cain**

## Interactivity: Alchemy questions

1. Does player have limited or unlimited amount of each substance?
2. If limited, can player go back and refresh their supply from a source?
3. Can player hack system by repeatedly trying different combinations?
4. Can player carry all substances at once?

**What kind of game  
did I want to write?**



**Story as experience**

**vs.**

**Story as challenge**

**Story as experience**

*(Queen's Gambit, Rebecca)*

**Story as challenge**

*(Pale Fire, Infinite Jest)*

## Interactivity: What kind of game?

- Unlimited essences once found
- Cool-down between failed attempts to discourage hacking
- No inventory management puzzles
- Tutorial integrated in opening locations

# Graphics

## Graphics

- During research, stumbled on Hudson River School
- 19th century landscape painters based in U.S.
- Painted American West as Eden reclaimed—land untouched by human hand
- Postlapsarian, antediluvian world

*Among the Sierra Nevada, California, Albert Bierstadt, 1868*



*Valley of the Yosemite, Albert Bierstadt, 1864*





*Expulsion from the Garden of Eden, Thomas Cole, 1828.*

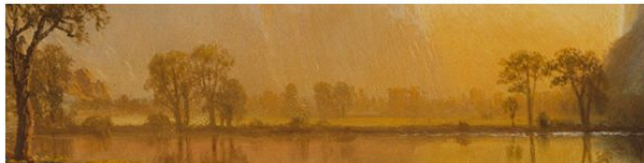






strands of rope peeling away beneath your feet. You impatiently grapple for the handhold, but it too buckles. Madly you scramble to hold onto your possessions as the rope gives way. You tumble into the ice-cold river...

[Press any key to continue...]



## II. A Fragile Earth

You're washed far downstream before you manage to grasp solid rock and pull yourself from the river. You trudge up the eastern bank drenched to the bone and grouching about "rural craftsmanship."

After some time in the sun, your equipment and essences are dry and intact. The frigid river has left you shivering uncontrollably, however.

Worse: You lost your orbis bracelet in the water. Without it, you have no way to return to the Academy.

You struggle to recall why you accepted this task from the Provost. You struggle equally to grasp why he would select you, a novice so green in the science of investigation. Perhaps after losing two *Indagatores* to the inquiry, he found himself facing a dearth of volunteers.

### Plain

You're standing on the edge of a flooded plain. A stagnant pond fed by the redirected river makes a murky mirror across the plain. An irrigation ditch controlled by a sluice gate leads to a distant field of wheat covering much of the valley floor.

To the southeast is a winding footpath leading up an incline, while northeast of here is a squat cave set in the side of the bank.

Far to the north, you make out a settlement around an enormous cedar tree. The way north is blocked by the pond.

>

**Music**

# Music

Due to subject matter & setting of *Cain*,

I was inspired by

Peter Gabriel's soundtrack

*Passion: The Last Temptation of Christ*



# Music

- Think in terms of turns, not time
- Prioritized, event-driven playlists
  - Low-priority playlist for current region
  - Player solves puzzle—upbeat music for a few turns
  - Player discovers clue—intriguing music for a few turns
  - Player enters new region—change baseline playlist
- **Music is optional!**

# Music

*If you can't make your own music, or hire a musician...*

- Crash the stacks—free music archives
- Find music that reflects your vision
- Listen, listen, listen
  - <https://incompetech.com>
  - <https://freemusicarchive.org>
  - <https://freesound.org>
  - <https://soundbible.com>

**Respect licenses!**

**Give credit where credit is due!**

# Three notes on coding with TADS 3

**1. TADS is alive and well.**

**2. Small but fervent community.**



**3. Give TADS a shot. It rocks.**

**3. Give TADS a shot. It rocks.  
(but it helps if you already know symbolic  
programming)**

# Credits

## *According to Cain credits*

TADS 3: **Michael J. Roberts**

adv3Lite: **Eric Eve**

Beta testers:

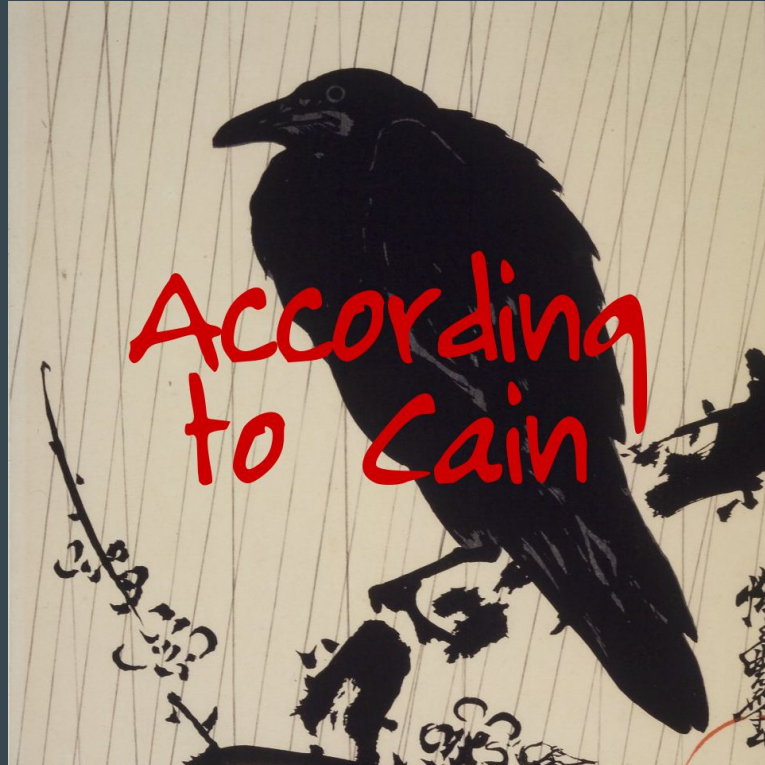
**StJohn Limbo, Mathbrush, Christopher Merriner, Rovarsson, Mike Russo**

Music:

**Kevin MacLeod ([incompetech.com](http://incompetech.com))**

**Serge Quadrado ([freemusicarchive.org/music/serge-quadrado/](http://freemusicarchive.org/music/serge-quadrado/))**

**Thank you**



# Q&A

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