hi welcome back to part two of this my extended director's cut of my gdc talk on 30 puzzle design

lessons from

classic uh puzzle communities and how

those lessons can be applied to the

creation of video game puzzles

the 11th lesson is create a rewarding

ending

and the quintessential example of this

is the puzzle picross aka nanograms

which

uh the the picross games have been

published by nintendo since the 90s and

i think the first nanograms

published in the late 80s in various

japanese puzzle magazines there's an

interesting story about the

the origin of them they were created by

two different authors

seemingly simultaneously um but alas one

of the exciting things about nanograms

is at the end you sort of get this

picture

and there's always this question like

what is the picture gonna be

anticipation for uh sort of that

exciting moment where the the picture or

the identity of the picture what is it

oh it's a

rubber duck it's a lion is finally

revealed

another example is this puzzle spiral

galaxies

which it doesn't have an ending surprise

step at the end

but a variant of it does and i will show

you the classic first so this is the

classic spiral galaxies the goal is to

partition the grid

into these regions each of which

contains exactly one dot

and the shape of the region is

rotationally symmetric 180 degrees

around that dot it's a very interesting

puzzle there's a lot of

uh fascinating logic that goes into

solving them uh

but another uh similar type of puzzle

which is printed by nikoli under the

name tentaisho which

is a hilarious pun if you know japanese

taisho means

symmetry and 10 means symmetry about a

point

but tentai also means sort of a heavenly

body like a galaxy so this is a

show of heavenly bodies uh excellent pun

anyways digression uh this was first

published in nicolly magazine in 2001

by an author who goes by gesaku and it's

essentially a spiral galaxy's puzzle

where some of the dots are dark colored

and if you shade the dark colored dots

you get a shape uh and here's a more

sophisticated example quite a large

instance when you solve it you get this

and the shape is that

of an astronaut uh quite an interesting

uh composition that's been put together

and you might ask well

is the puzzle boring because of this

does this sort of compromise the flow of

the puzzle because you're having to make

all of these

regions fit together in exactly this way

and the answer is mostly not like if you

look over to the left side of this

puzzle you can kind of see there's

really elaborate snaking and winding

regions going all over the place and

those are quite

interesting to solve and to sort of

figure out the logic of how that must be

shaped

however putting those in sort of

requires large amounts of

just one color of region and that can

sort of

force the design if you wanted to make a

qr code

into this then probably most of the

puzzle would be relatively uninteresting

to solve

it relies or depends heavily on uh

the shape being a certain way here's an

example that kind of illustrates that

this is

uh you know i'm just putting this

together to show off it's gdc 2021

but this is actually made using a uh a

text generator by eric and martin domain

and it shows you know you can do

whatever you want with these ten thai

show puzzles but like

you know this is the two and it's just a

diagonal set of one by one things it's

it's not particularly interesting or

solve or fun to solve

um another example of putting a surprise

at the end of the puzzle

are the extraction steps that occur in

puzzle hunts like the mit mystery hunt

where every single puzzle has a solution

that is a word or a phrase and often

those are used in metapuzzles or other

things

here's a tintai show puzzle whose answer

is actually a five letter word

and if you solve it you get this and

maybe you can guess what the five letter

word answer is of course it is

clubs uh this is by paul curtis from his

blog

etological enigma which uh has a lot of

interesting puzzles that have a word or

phrase

as an answer the extraction steps uh

have a couple of values they provide

this additional final eureka moment

which can be especially exciting if

you're anticipating it or there's a

little bit of a surprise at the end

they also exploit the peak end rule

which means uh well

the the things that people tend to

remember the most are are sort of the

the peak or the most salient part of an

experience as well as the ending or the

last thing

and so if the last part of an experience

is somehow exciting or memorable then

overall

the experience will be viewed more

positively

and so that's true of puzzles like these

it also can create setups for meta

puzzles where

words like clubs can be used as

ingredients

in another puzzle and many uh puzzle

hunts like mit mystery hunter set up

with these meta puzzles that are sort of

like boss puzzles where

there might be 12 other puzzles you need

to solve and then you take those 12

words and you use them to solve this

final puzzle and maybe only eight to ten

of those twelve are actually needed

so uh it can create a sort of

progression gate

where you don't necessarily need to

solve everything but you need to solve

most of it

um and that can be very useful for uh

pacing and structuring a puzzle hunt