

“Talking To The Player”

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Welcome, and thank you for reading!

I’m Matthias Worch, a designer in the game industry – most recently as Lead Designer on Star Wars 1313 at LucasArts. You can follow me on Twitter or reach me via email using these addresses.



Talking To The Player

How Cultural Currents Shape Game and Level Design

Monday, April 22, 13

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This lecture is called “Talking To The Player – How Cultural Currents Shape Game and Level Design”, and it was originally presented at the Game Developers Conference in 2013, as part of the AAA Level Design Bootcamp.

At its lowest level, this is simply a long stream of consciousness.



Talking To The Player

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I want to take you on a journey, and I hope that the destination will mean as much to you as it did to me. So let's get started!

(Note: throughout the text, you will find footnote markers in square brackets [x]. These notes are explained in the annotations at the end of the regular presentation.)

Funds For Crippled Children



Fisher



Harry Ratner



J. Z. Kahn



SCHOOL HEADS WILL BE HEARD

Y. M. & W. H. A. Holds Silver Anniversary Education Session Tonight

Representatives of the principal educational institutions of Western Pennsylvania will speak at Young Men's and Women's Hebrew Assn. tonight, which has been set aside as Educational Night in the series of events celebrating the organization's silver anniversary.

Among those who have been invited to speak are: Dr. John G. Bowman, University of Pittsburgh; Rev. J. J. Callahan, Duquesne University; Dr. Charles Watkins, Carnegie Tech; Dr. Herbert L. Spencer, Pennsylvania College for Women; Dr. Herman Hailpern, Tree of Life Synagogue, and Israel Adams of Hebrew Institute.



Mr. Lowenthal

REAL ESTATE BOARD SELECTS GOVERNORS

Ten Are Named for Three-Year Terms, One for One Year

Eleven realtors were named governors of the Real Estate Board yesterday at a meeting in the William Penn Hotel. They are George A. Brown, H. Chidester, Robert F. Dyson, J. F. Gibson, Fred J. Hettling, H. A. Kenan, Thomas McCaffrey, Jr., C. G. Pfodrt, Arthur P. Texter and John L. Walsh, each to serve three years. R. C. Corey was named to serve a one-year term.

The group will meet soon with hold-over members to organize and elect officers for the coming year.

RUSSIAN SCIENTISTS report success in making synthetic rubies and sapphires weighing up to 100 carats.

PROFESSOR KILLED IN WEIRD SHOOTING

Harvard Man Shot as He Tries to Untangle Gun From Clothes

By The United Press

LOS ANGELES, Dec. 4—Milman Parry, 32-year-old Harvard University professor, was killed last night in a weird and apparently accidental shooting 10 minutes after he arrived here from Cambridge, Mass.

The accident occurred, according to the story Parry's wife, Marion, told police, as he was opening a traveling bag. She said the gun was entangled in clothing and discharged, sending a 38-caliber slug through his chest.

Mrs. Parry said her husband had gone into a bedroom almost immediately after their arrival on a visit to her mother's home. An instant later she heard the fatal shot.

Natural Gold Shockproof. Monarch



25c Down
25c Weekly



In early December of 1935, the The Pittsburg Press reported Milman Parry's death in a Los Angeles hotel room: "PROFESSOR KILLED IN WEIRD SHOOTING. Harvard Man Shot As He Tries To Untangle Gun From Clothes." [1]

Parry's death might indeed have been bizarre, but today...



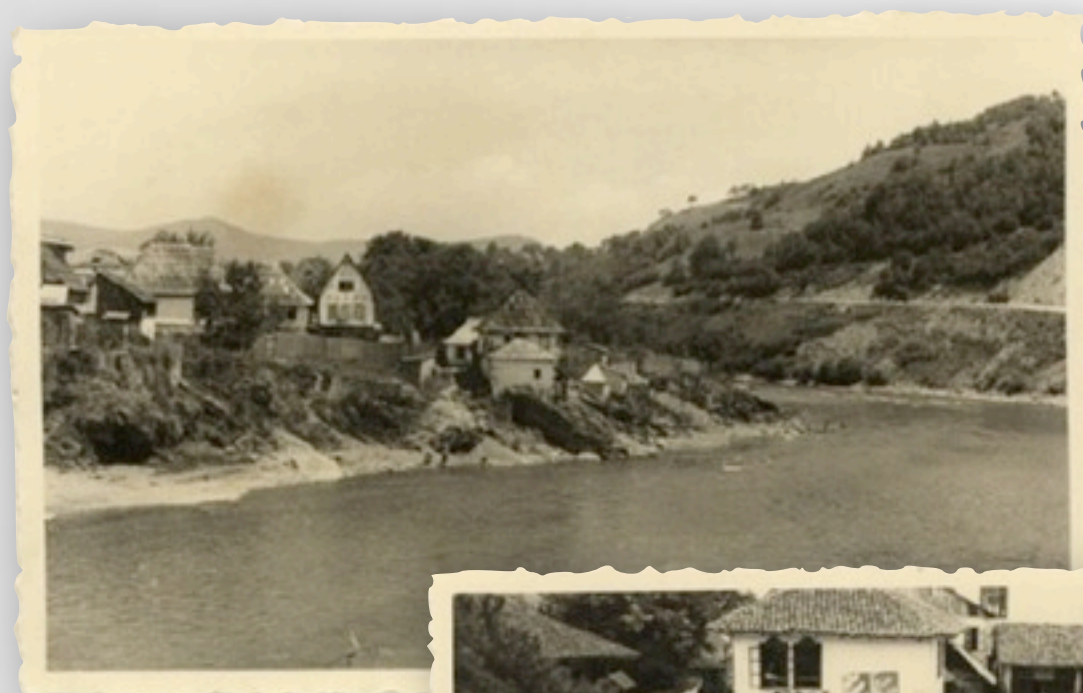
Milman Parry 1902-1935

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Milman Parry is remembered as the founder of the study of oral tradition, and as a pivotal scholar of ancient Greek epic poetry, which is a field which he revolutionized – in large parts due to work he did just before he died, while he was in Yugoslavia.





1933 AD

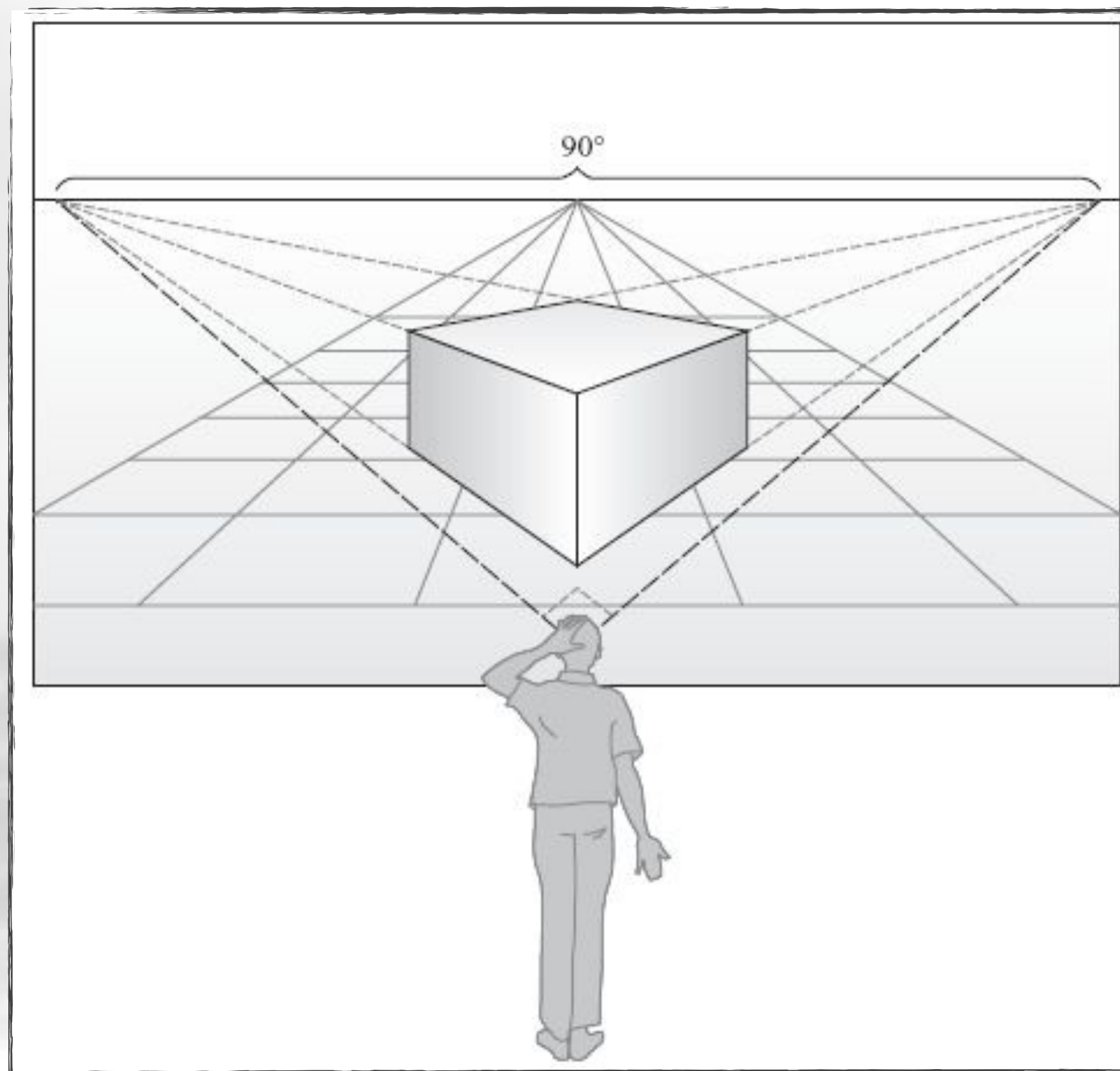
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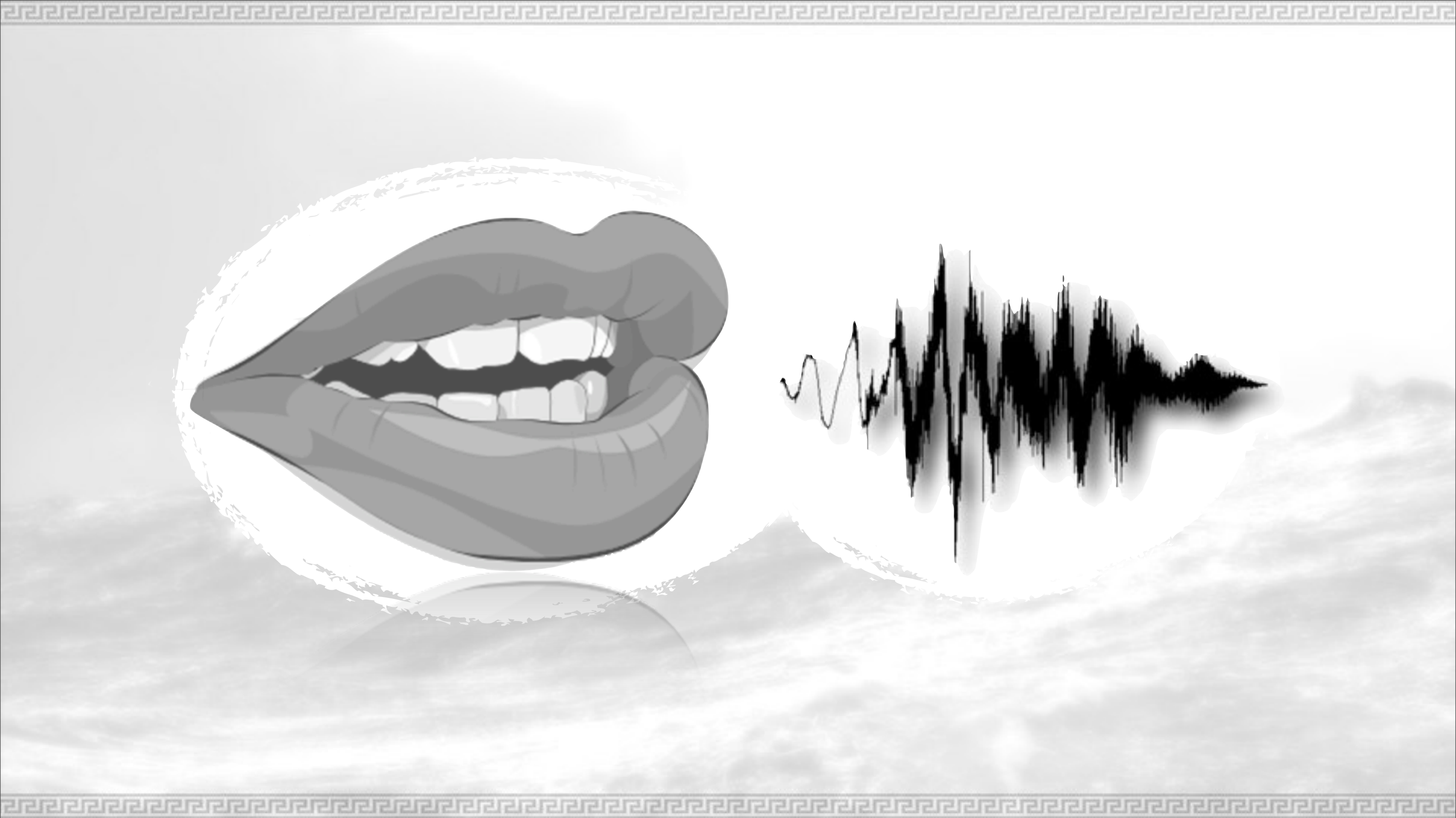
800 BC

...that closely resembled Parry's original interest (Greece at the dawn of western civilization) – at least in that the written word did not yet exist in this part of the world.

As a fully literate culture, this environment is fundamentally alien to us. We are so indoctrinated into the written word that the implications of the alternative – a culture where nobody writes and nobody ever has written – is not something we ever consider.



We're going to need some perspective. This perspective is I want to start our journey today.



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In an oral culture, ideas, thoughts and content are mediated via the spoken word only. Ideas are fleeting: after a thought has been expressed, it immediately disappears forever and only a memory remains.

I want to tie everything I'm talking about today into entertainment because generally, computer games are viewed as that. So... imagine if you were to hear a story in this oral environment.

Oral Culture



Literate Culture

- Content is mediated via performance
- Content is mutable
- Stories are personal
- Aggregative and non-linear. "Mosaic"
- Interference is considered normal
- Shared authorship

- Content is always tied to a performance. The only way to hear a story is through somebody else – somebody has to talk to you.
- There is no "master copy", so the story itself is fluid – it changes as repeat performances mutate the content. The overall theme stays the same, but the details change. In the audience, there is an expectation that every instance of a story is different.
- Everybody carries around his own personal version of the story.
- People understand a topic aggregatively: a story is slowly pieced together – a little bit here, a little bit there, plucked from different sources – the flow of information is non-linear. Things are never in sequential order.

Also imagine what this environment does to the concept of authorship:

- Interference with the content is considered normal: the only way to keep a cultural identity alive is through constant Dialogue – society reminding itself of what it collectively knows.
- So there is no concept of the individual work or authorship as we know it: authorship is shared and communal.

You might think that a fleeting, oral environment like this cannot produce large, epic tales...



I wonder if people will ever say, 'Let's hear about Frodo and the Ring.'

And they'll say 'Yes, that's one of my favorite stories. Frodo was really courageous, wasn't he, Dad?'



'Yes, my boy, the most famousest of hobbits. And that's saying a lot.'

You've left out one of the chief characters - Samwise the Brave. I want to hear more about Sam

...like the ones we're used to, and until Parry, that was the established opinion. And yet it does!



Fig. 29 Avdo Medjedovitch, peasant farmer, is the finest singer the expedition encountered. His poems reached as many as fifteen thousand lines. A veritable Yugoslav Homer!

Parry was studying Yugoslav bards who were singing thousands of lines of poetry without the benefits of any written notes.

Any two-syllable word for a horse can fit into this system with *davur*. Finally, around the second half of the first line in the chart a lengthy system can be formed:

	dogata
	kočiju
	dorata
	paripa
zasednu	hajvana
zasedem	maljina
zasede	binjeka
zasedi	mrkova
zaseo	vranina
	menzila
	šturika
	žekana
	eždralja

Since the singer learns his art from other singers and in his turn influences them, there are many formulas which are used by a large number of singers. For example, the following formula, line 789 from Chart I, is to be found in the songs of other singers from Novi Pazar:¹⁵

Jalah reče, zasede dogata. "By Allah," she said, she mounted the white horse.	
<i>Sulejman Fortić</i>	
Jalah reče, posede dogina. (II, No. 22:433)	"By Allah," he said, he mounted the white horse.
Jalah reče, posede hajvana. (II, No. 23:308)	"By Allah," he said, he mounted the animal.
<i>Đemail Zogić</i>	
Jalah reče, sede na dorina. (II, No. 24:746)	"By Allah," he said, he mounted the brown horse.
Jalah reče, posede hajvana. (II, No. 25:31)	"By Allah," he said, he mounted the animal.
<i>Sulejman Mađić</i>	
I to reče, posede dorata.	And he said this, he mounted the brown

not broken until the 3-3 of the last line. The pattern is too persistent and regular to be accidental. Moreover, it forms a nice counterpoint to the syntactic parallelisms; there is, indeed, a kind of syncopation between the syntactic parallelisms and the word-boundary patterns. Lines three and four are parallel both in respect to word-boundary patterns and syntactic patterns, but whereas the first half of five and six are both syntactically and rhythmically parallel, the second halves are 2-4 and 4-2 respectively, following an alternation beginning in line four with a 4-2 pattern. One has, therefore:

.....dode	4-2
.....prode	4-2
..prilazi.....	2-4
..upita.....	4-2
.....ukazao	2-4
.....dode	4-2
..zadrma.....	2-4

The syntactic and rhythmic parallelism of lines three and four modulates into a pattern of syntactic and rhythmic opposition in lines four and five, ix and seven, eight and nine, at the same time that syntactic parallelism is kept between five and six, seven and eight. Had Ugljanin been a literate poet who sat down with pen in hand to devise these lines with their inner balances and syncopations, he could not have done better. One can even fancy the overliterate "interpreter of literature," innocent of Salih's ignorance of such matters, extolling the syncopation as the artful intent of the poet to indicate the zigzag search of the messenger for Alija!

A perfectly natural consequence of building passages by syntactic parallelisms and acoustic patterns is that passages so built tend to have a comparative stability, or better, a continuity in time both in the habit of the single singer and, to a lesser degree, in the current of a tradition. Just as formulaic lines with internal rhyme or with a striking chiasmic arrangement have a long life, so couplets with clearly marked patterns persist with little if any change. For example:

Bez edelja nema umiranja, Od edelja nema zaviranja. (II, No. 24:631-632)	Without the fated hour there is no dying, From the fated hour there is no escape.
or:	
A zočki je polje pregazio, A vučki se mali planinama. (I, 37-38)	Like a rabbit he crossed the plain, Like a wolf he ranged along the moun-

Parry discovered that the bards don't learn each tale verbatim. They remember them via formula which is directly imprinted in the language of the songs themselves: defining linguistic features such as the meter, redundancies (i.e. epithets) serve as mnemonic aids, and as construction rules for each line of the song.

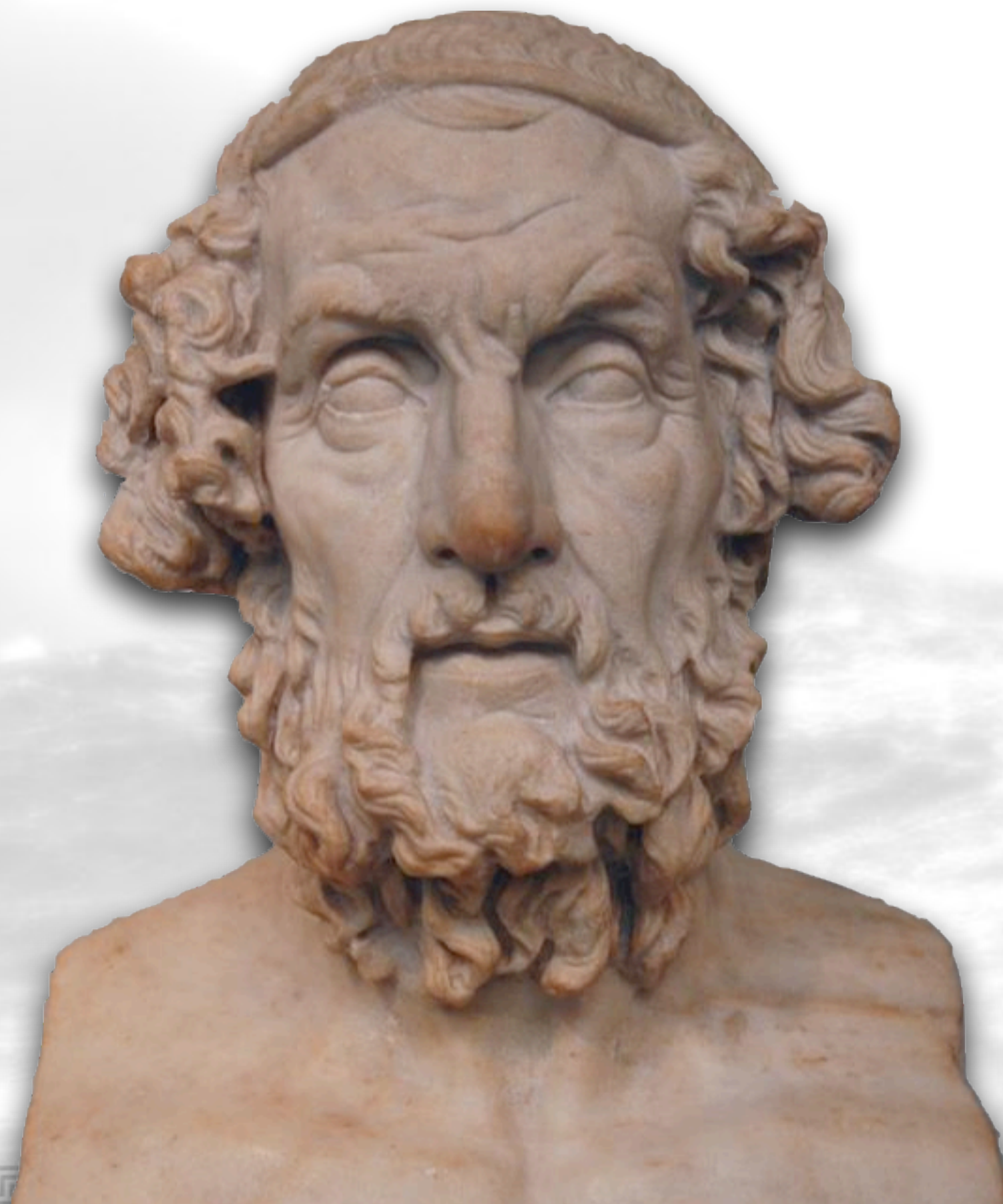
The formula is almost mathematical in nature: each singing performance expresses the same theme differently using different formulas. As a result, depending on the crowd, situation, the singer's own mood and his memory, these Yugoslav bards never tell the same tale twice. [3]



Fig. 29 Avdo Medjedovitch, peasant farmer, is the finest singer the expedition encountered. His poems reached as many as fifteen thousand lines. A veritable Yugoslav Homer!

Topic <-- Formula --> Epic Story

Parry demonstrated that oral poets can indeed compose, remember and sing thousands of lines of poetry without the benefit of writing. They do this by taking a well-established topic and improvising on it anew in each performance.



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Parry went back to his original interest and applied his findings to Homer, who was considered to be one of the earliest authors in human history.

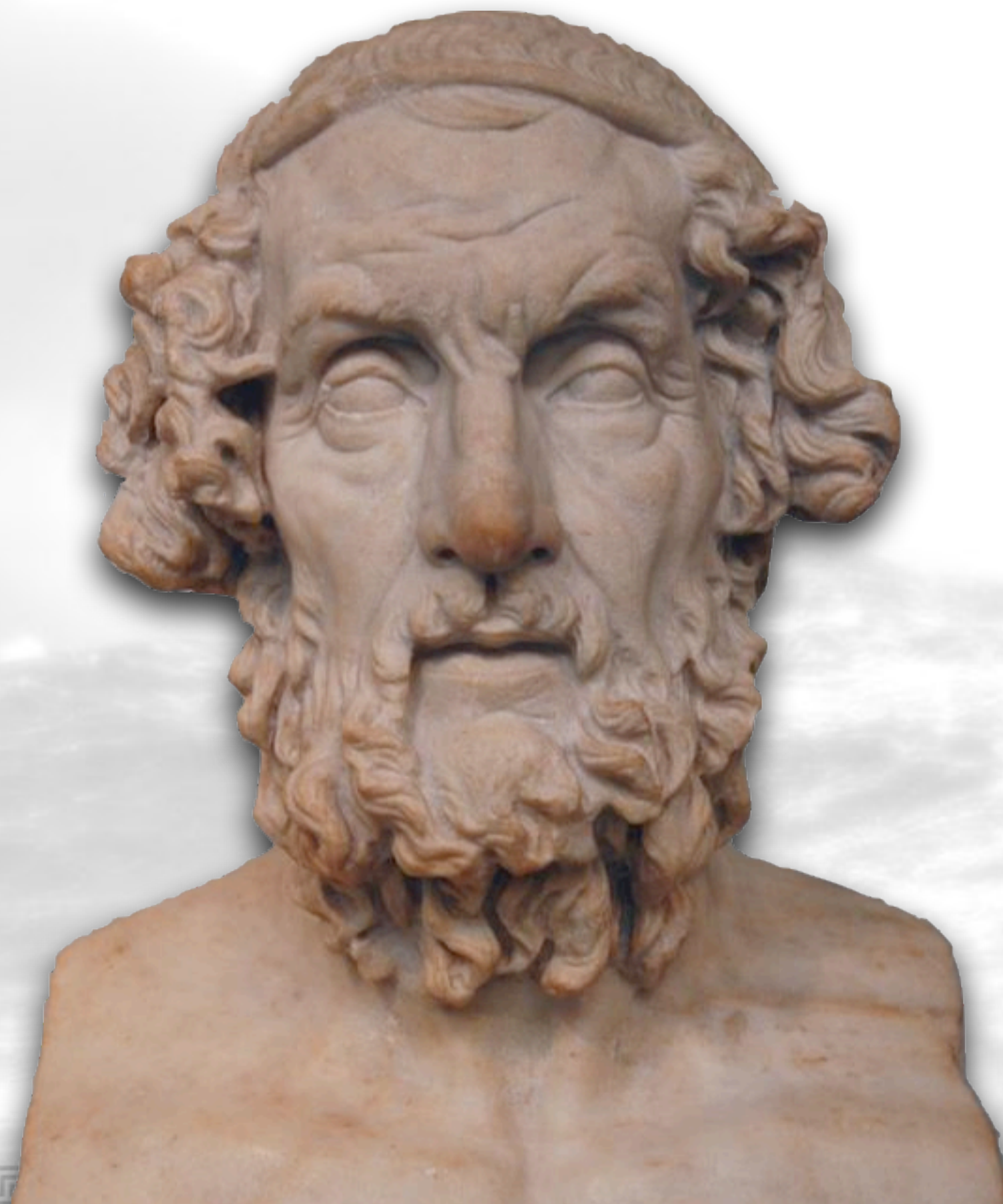
Or was he? Parry identified an abundance of parallels between the Iliad/Odyssey and the songs he had studied in Yugoslavia: ...

		δείπνησε κατέπαυσα τάρπησαν τάρπημεν παύσαντο	he took his meal I put an end to they delighted we may delight they ceased
αὐτὰρ ἐπεὶ	{	ἔσσαντο εὖξαντο ἤγερθεν ἵκανε ἵκοντο ᾤπτησε ἔτέλεσσε ἐνέηκε	they sat they prayed they were awakened he arrived they arrived he roasted he completed he let in
αὐτὰρ ἐπειδὴ	{	ζέσσειεν σπεύσει τεύξει	it boiled he hastened he made
αὐτὰρ ἐπὶ	{	ἔλθῃτε ἔλθῃσι ἀγάγῃσι	you may come he may come he may lead

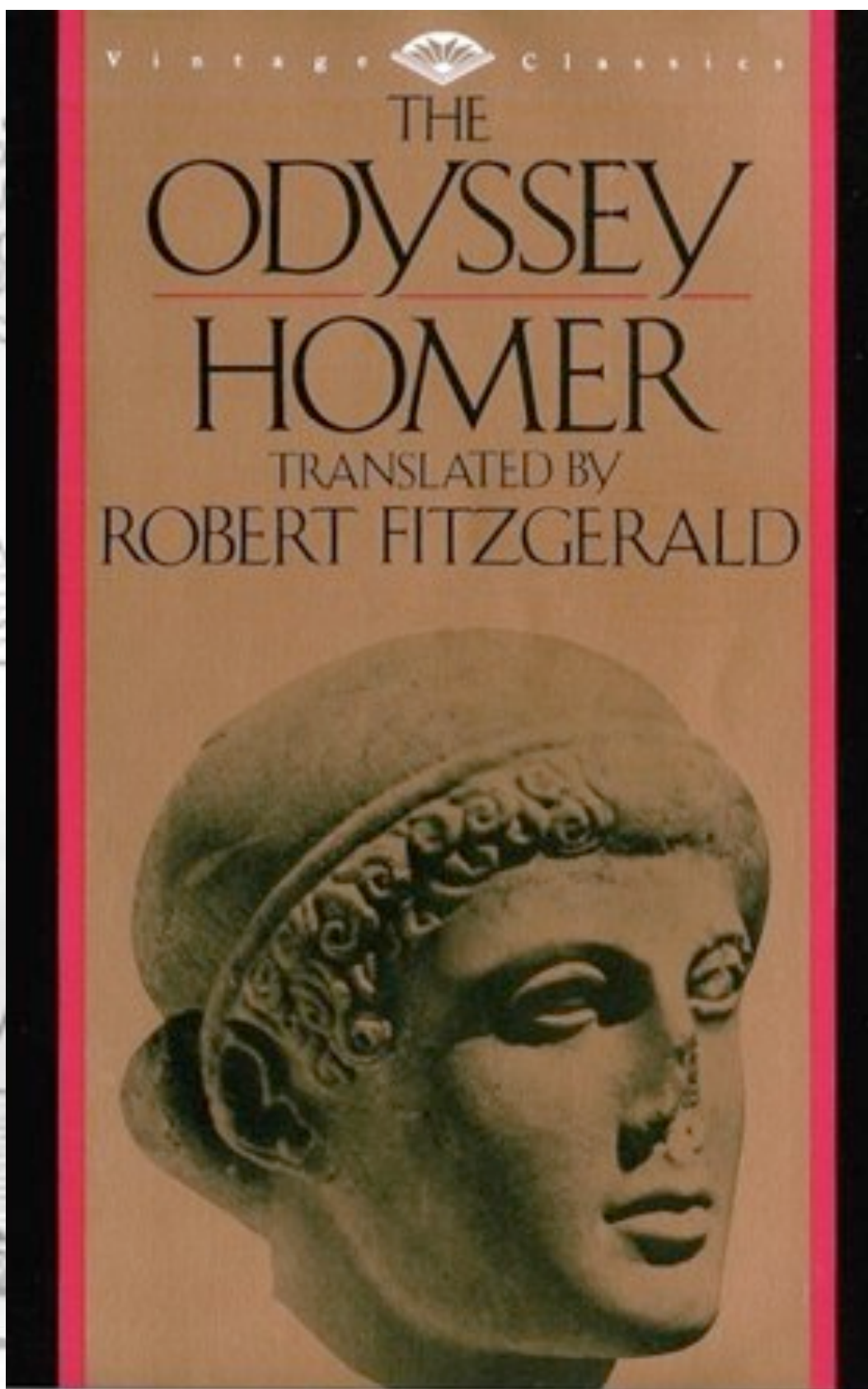
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Homer’s works possess the same formula that Yugoslav bards use to remember and tell their stories. Even though Parry got a lot of pushback at first, ultimately only one conclusion was possible and is universally accepted today: Homer’s epic tales were not written as literature – they must have existed as improvised oral poetry first.



The man we know as Homer was a scribe, who...



... for the first time in human history, used the written word to create a fixed and authoritative version of what use to be shared, cultural knowledge – by writing it down. [4]

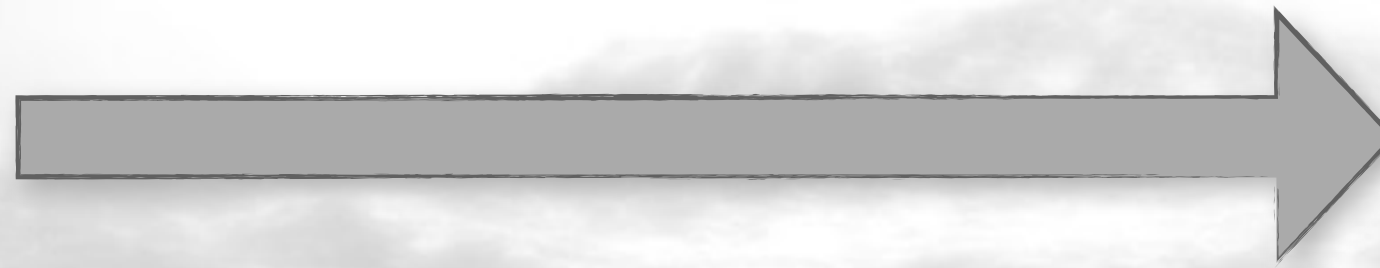


Milman Parry 1902-1935

So... What does this have to do with our modern day culture, let alone computer games?

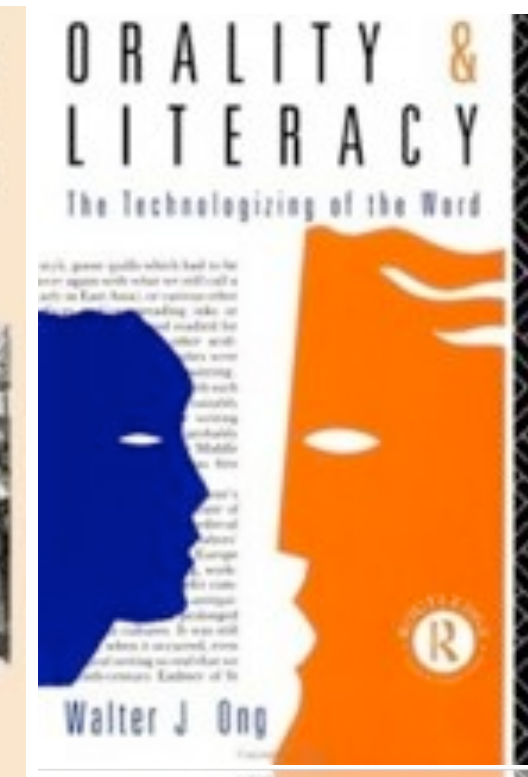
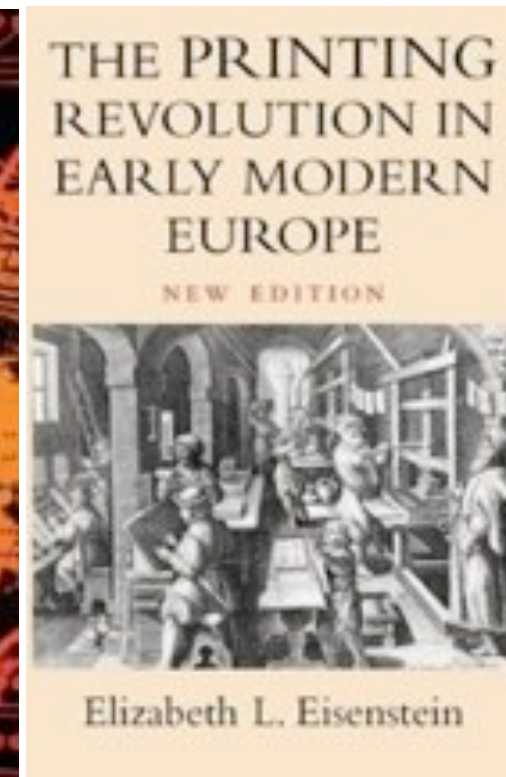
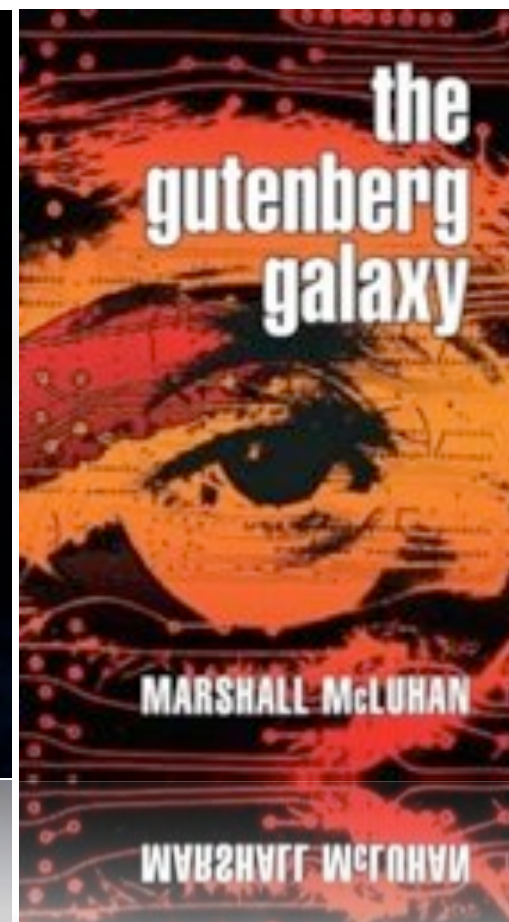
Parry's work is so important not just because it illuminated the time when nobody was writing...

**Oral
Culture**



**Literate
Culture**

...or the inevitable transition from Orality to the literate culture that came afterwards. Parry created a foundation.



Oral Culture



Literate Culture



A foundation that generations of scholars have used to make us aware of something much more crucial: the way in which a culture mediates ideas & content fundamentally affects our views and expectations. It even influences the very way we think – which is then reflected in the popular entertainment of that age, including computer games.

As the written word displaced Orality it caused wholesale changes to the human psyche.



“Something of a thunder-clap in human history. [...] It laid the basis for the destruction of the oral way of life and the oral modes of thought.”

- Eric Havelock
Preface To Plato



**Oral
Culture**

Writing



**Literate
Culture**

**Situational
Experiential**

**Conceptual
Abstract**

Havelock showed how the Greek mind shifted from experiential thinking – a society that organized experience in terms of events (I might call this “gameplay”) to a culture that organized experience in terms of ideas – increasingly embracing abstract and logical thinking (I might call this “structure”).

[7][8]

Sequential Thinking

Categories

Conclusions

Russian psychologist A.R. Luria showed that literacy creates the tendency to think categorically and draw conclusions. [9]

But there is one fact that's more important to us: literacy fundamentally rewires our brain to accept sequential logic – something that doesn't come natural to us...



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...as anybody with a toddler will attest to.

In order to read, we have to assemble a collection of distinct letters into a single word and mentally convert that word into an object or concept. We then linearly follow each word, line by line, sequence by sequence, to assemble a sentence. In doing this, we convert the symbolic, visual information on the page into a mental image that reconstructs the author's stream of consciousness.



Written stories fundamentally work because
literacy conditions audiences to accept
Sequence As Rationale.

As Marshall McLuhan points out, the act of reading conditions us to accept “Sequence As Rationale”. [10]

Through reading, we get so used to following somebody’s stream of consciousness that we trust in the inherent sequential logic of what is being said – to be able to read fluidly, we **have** to be able to trust that the author knows where he’s going.

That’s the convention that we are raised into these days, from earliest childhood...

Oral Culture



Literate Culture

- Content is mediated via performance
- Content is mutable. Formula
- Stories are personal
- Aggregative and non-linear. “Mosaic”
- Interference is considered normal
- Shared authorship

- Single source and sequential.
Monolithic

...and it's first big change in how living in the print culture changes the way we perceive content: knowledge is organized sequentially, which gives rise to the convention of...

Oral Culture



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- Sequence As Rationale

...Sequence As Rationale. The concept doesn't exist in oral culture (and you will see its analog change throughout this talk): oral culture – by necessity – organizes information into frameworks of knowledge in which each element must be able to continuously justify its relationship to other elements in the framework.

You might have noticed me talking about “print culture” just a little bit earlier: ...

Oral Culture

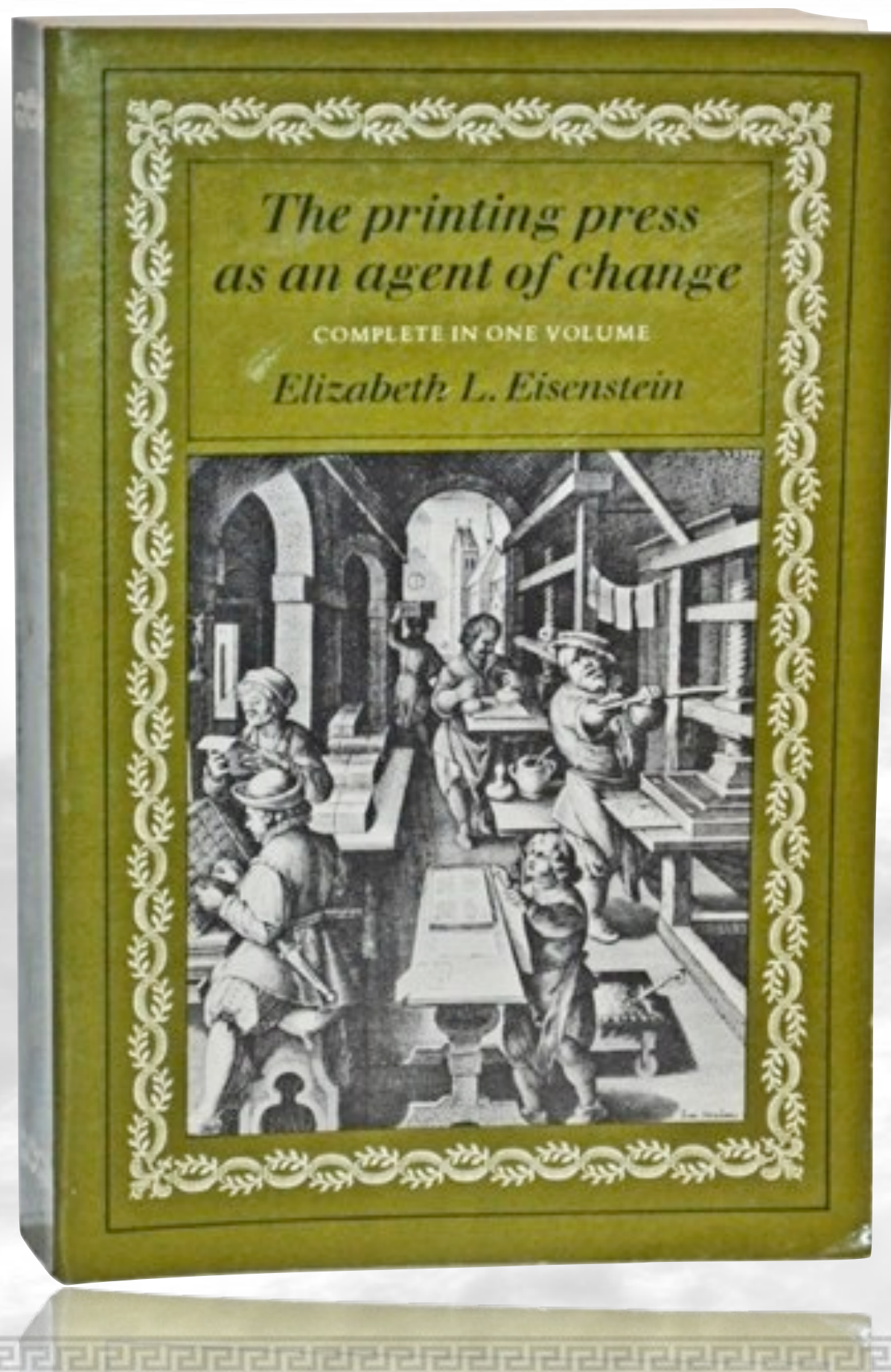


Print Culture

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I'll specifically start using that term going forward to account for the Gutenberg Printing Press, which – by making mass reproduction of content possible and putting us on the path towards mass literacy – affected all the cultural changes we're be talking about here.



Elisabeth Eisenstein identified the Press an “agent of cultural change” and analyzed in detail how it changed modern culture.

Rather than trying to brutally summarize her findings, I’ll keep the discussion in the realm of entertainment. Let’s consider how you would learn a story in this new print culture environment, and compare it to the old, oral culture: ...

Oral Culture



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- Content is fixed & hard-coded
- Single source and sequential. Monolithic
- Sequence As Rationale

There now **is** a master copy. Print creates the ability to lock down ideas and thoughts – an authoritative and fixed version of the content.

Oral Culture



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Oral Culture



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As already mentioned, rather than piece together a story out of multiple performances, stories are consumed linearly – via big books or long movies. There’s an expectation now that we can “finish” a story.

Oral Culture



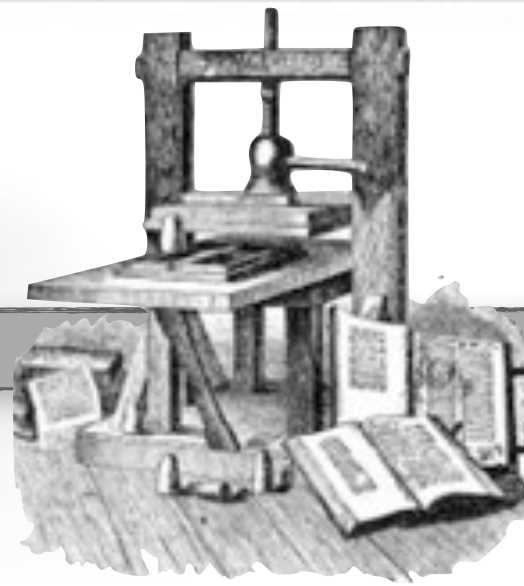
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- **Interference is to be avoided**
- Sequence As Rationale

This is where the belief in the individual work by an original author begins. An author whose work is considered original and which ought to be mediated with as little change as possible – ...

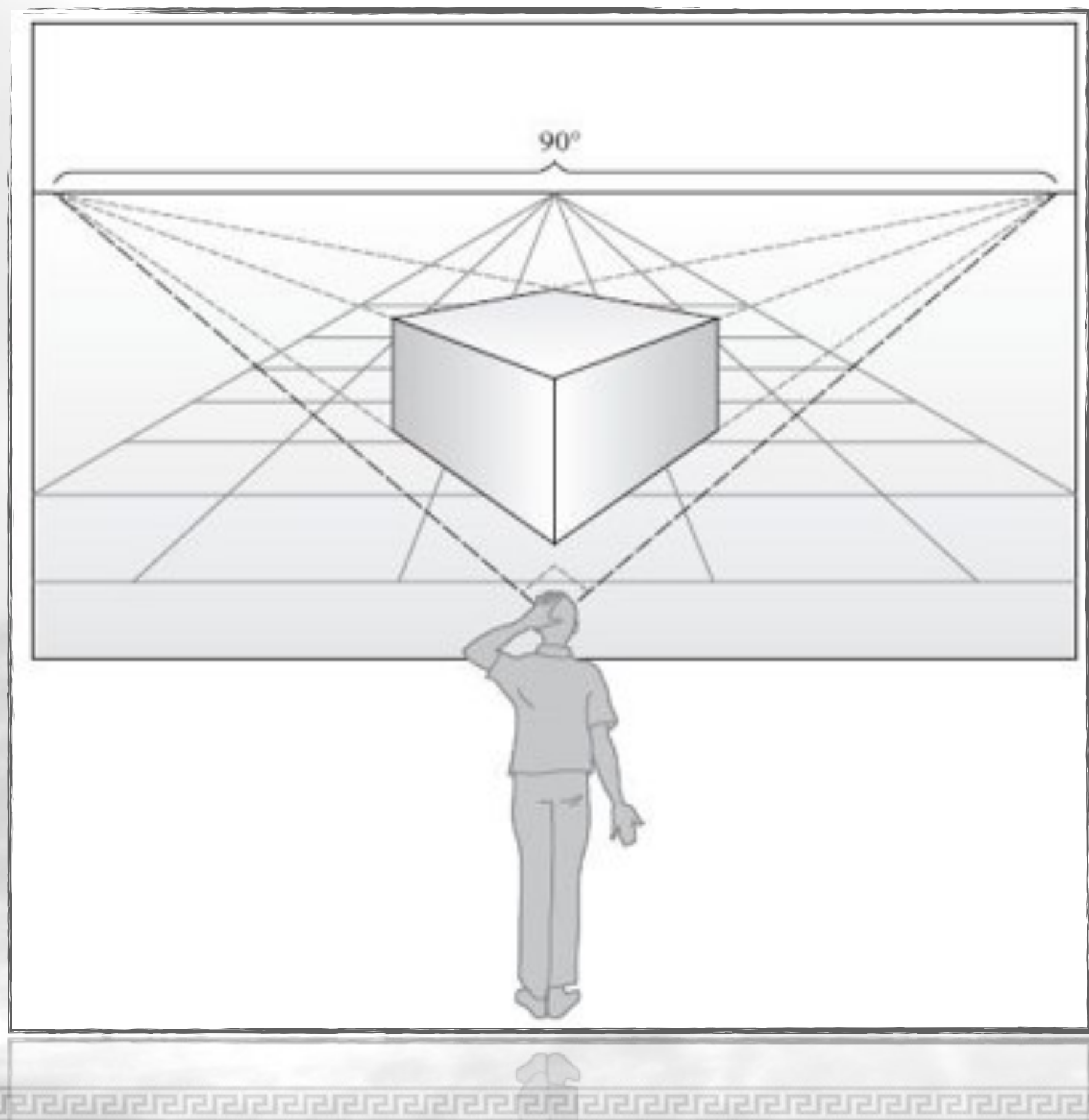
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- Interference is to be avoided
- [Authoritative Author](#)
- Sequence As Rationale



So, you might say “Okay, all this perspective is great, but games haven’t been accused of being too much like books – well...


```
West of House                                     Score: 0      Moves: 3
Copyright (c) 1981, 1982, 1983 Infocom, Inc. All rights reserved.
ZORK is a registered trademark of Infocom, Inc.
Revision 88 / Serial number 840726

West of House
You are standing in an open field west of a white house, with a boarded front
door.
There is a small mailbox here.

>Open Mailbox
Opening the small mailbox reveals a leaflet.

>Take leaflet
Taken.

>Read leaflet
"WELCOME TO ZORK!

ZORK is a game of adventure, danger, and low cunning. In it you will explore
some of the most amazing territory ever seen by mortals. No computer should be
without one!"

>
```

...at least not recently. Why is this important?

It's important because of the medium we *do* commonly get compared to: movies. The foundation created by literacy extends far beyond the actual act of reading.



Film also rests on it.

In “Understanding Media”, Marshall McLuhan extends his notion of Sequence As Rationale to film: ...



“A literate audience, accustomed to following printed imagery line by line without questioning the logic of lineality, will accept film sequence without protest.”

- Marshall McLuhan
"Understanding Media"



+



= sadness



+



= hunger



+



= lust

“The logic of lineality” – that’s the medium specificity of film.



Creating what we call “continuity cinema” means creating an authored stream of consciousness, which asserts logic with every cut – and to be able to follow that stream of consciousness, the audience needs to be aligned with the cultural values of the author. [13]



We all share these conventions: it's the reason that all of our minds – instead of simply trying to group this collection of pictures based on content, contrast etc. – automatically turn the images into a sequence and try to figure out a story; starting at the top left and ending at the bottom right, going sequentially. [14]

Oral Culture



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- Authoritative Author
- **Sequence As Rationale**

Film works because, as we watch, we shift into a frame of mind that doesn't just accept – it *expects* Sequence As Rationale. We enter a passive environment in which we willingly submit ourselves to somebody else's authored stream of consciousness with its inherent logic.

In that way, film is the ultimate expression of the acquired conventions and the mindset of the print culture: ...

Oral Culture



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Oral Culture



Print Culture



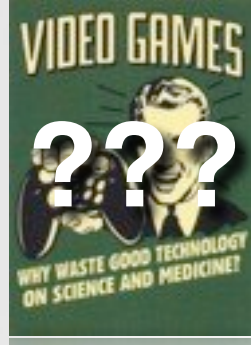
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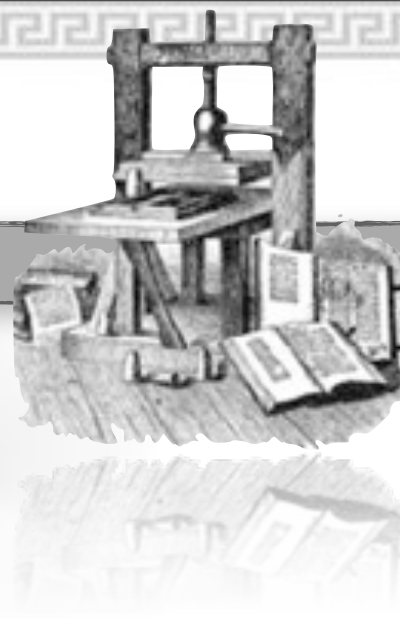
And it broadcasts the exact same message to everybody.

But computer games are trickier than film. They’re not just a continuation of that aesthetic.

Oral Culture



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In fact, if you look at our chart here, the values of computer games are all over it, on both sides – and that’s where all of this background is becoming relevant to us.



Imagine that I want to make a First Person Shooter game. I assemble my core creative team, and we take the correct first step: ...



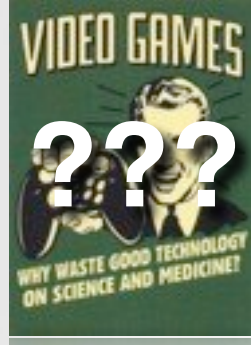
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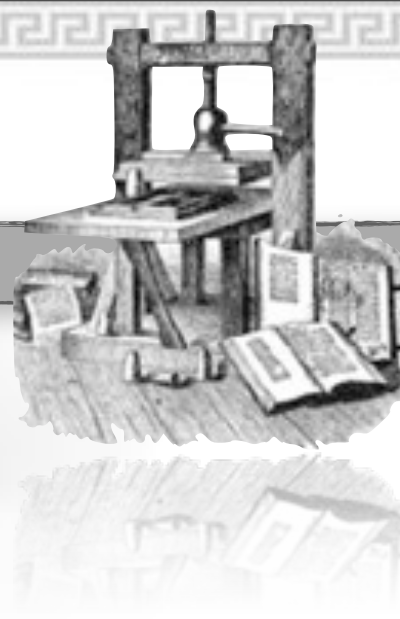
We have a series of heated discussions to figure out what we're all about – what our core values are.

Those discussions are always heated – because people are very passionate about the kinds of issues that we have to figure out: ...

Oral Culture



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- Aggregative and **non-linear**. “Mosaic”
- Interference is considered normal
- Shared authorship
- Knowledge frameworks



Print Culture

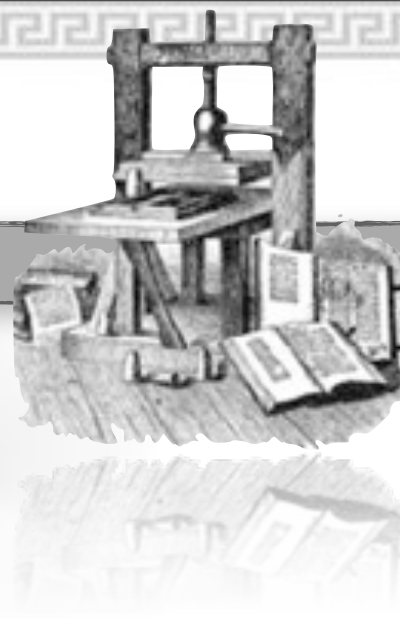


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- Content is homogenized
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- Authoritative Author
- Sequence As Rationale

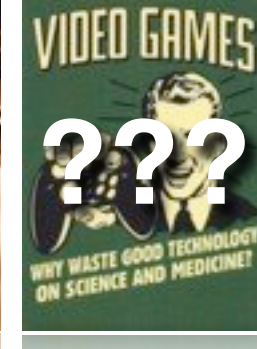
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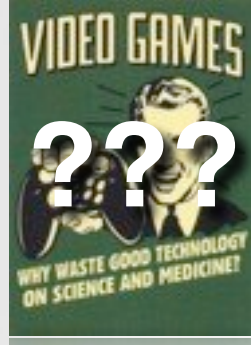


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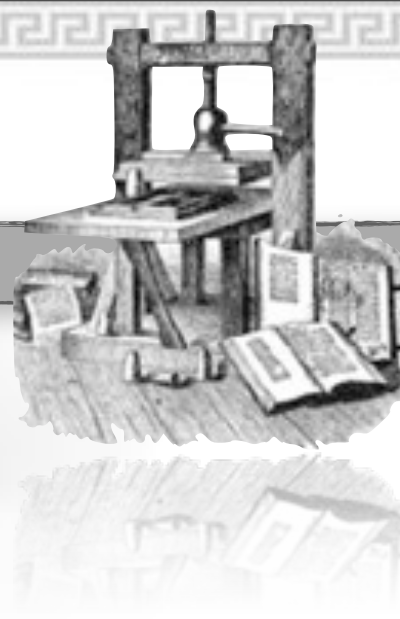


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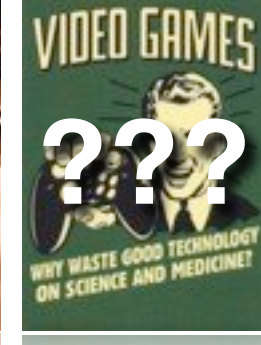
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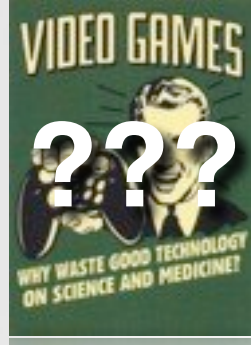


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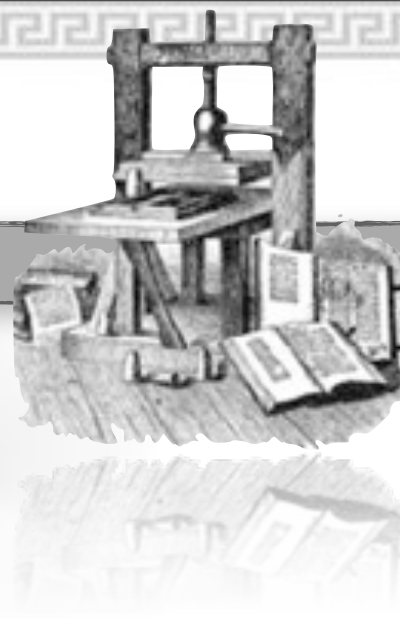


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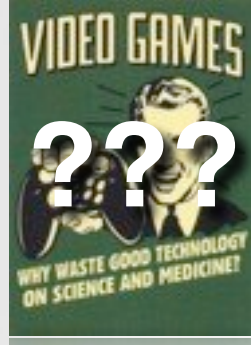
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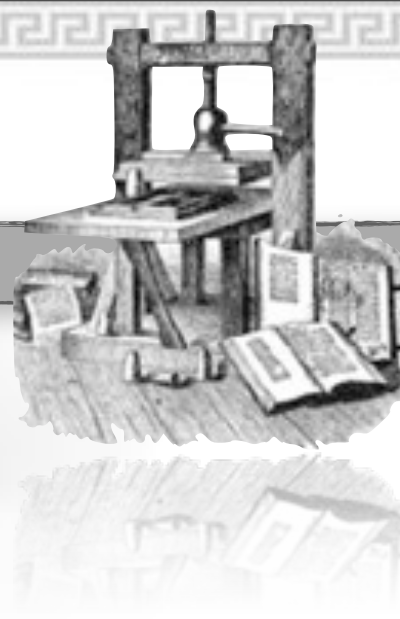
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Can the player interfere with the fundamental story structure (are there multiple endings)?

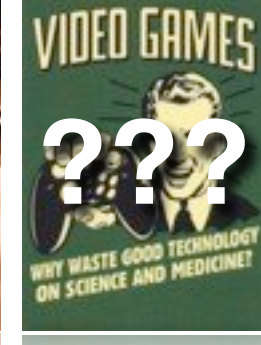
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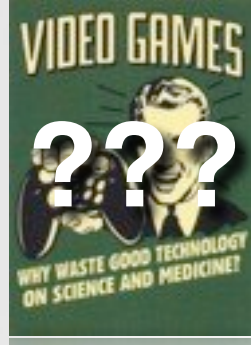
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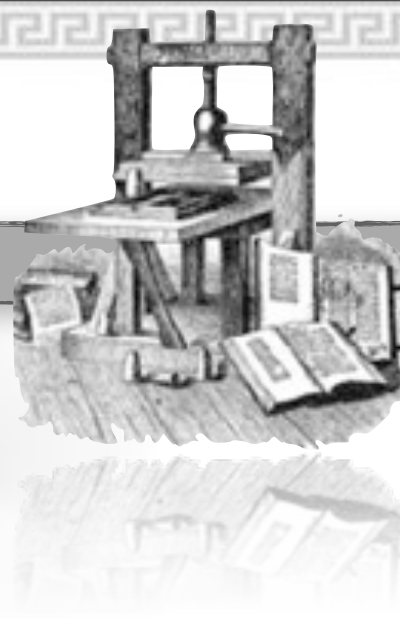
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Is the game systemic or does it use lots of special-case situations like set pieces?

Oral Culture



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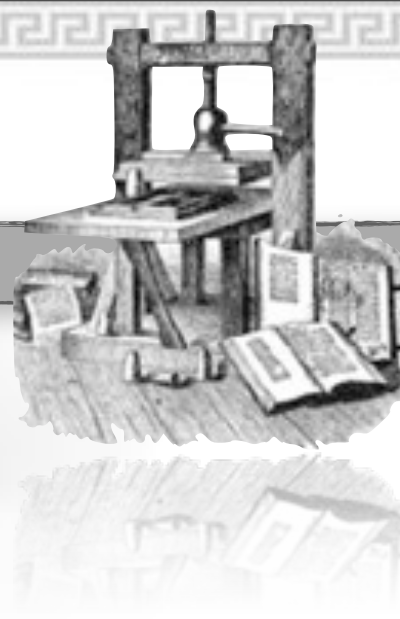
How does the story come together, and how do we motivate the player (do we rely on authored sequence or does the player figure it out himself?)

For each trajectory, I can come up with a poster child example of a game.

Oral Culture



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Print Culture

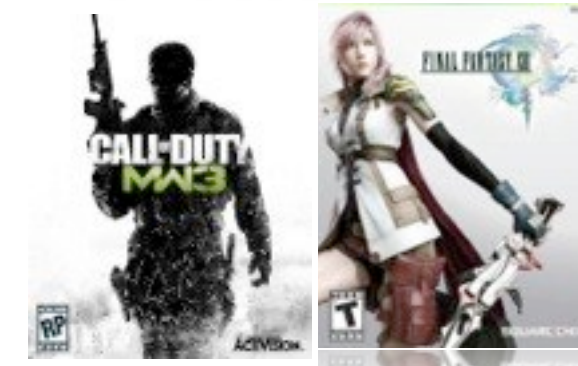
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There are many games that subscribe to the values of the print culture. These games:

- embed a lot of pre-authored content that every player sees the same way,
- which means that all play experiences are roughly the the same.
- Are very linear in its story and mission structure –
- the player doesn’t get to interfere with the higher structure of the game.
- This is the (to us) traditional authorship paradigm from Print Culture.
- Sequence As Rationale is a part of these games, for example in how player motivation is created or in deciding what happens next.

In this case, the FPS I just made is Modern Warfare. Or – if we want to find a juxtaposition to Skyrim – Final Fantasy.

So, I can easily map Dishonored to one culture and Modern Warfare on the other. Never mind how different those games are in their subject matter – that’s not important.

Oral Culture



- Content is mediated via performance
- ~~Content is mutable. Formula~~ Systemic
- ~~Stories are personal~~ Player Story
- ~~Aggregative and non-linear. "Mosaic"~~ Non-linear
- ~~Interference is considered normal~~ Narrative agency, multiple endings
- ~~Shared authorship~~ Abdication of authorship. Level designer = facilitator
- ~~Personal goal structuring~~ Player creates his own agenda, is always in control



Print Culture



- Content is mediated impersonally via artifact
- ~~Content is fixed & hard-coded~~ Special Case
- ~~Content is homogenized~~ Designer Story
- ~~Single source and sequential.~~ Monolithic Linear, with clear beginning & end
- ~~Interference is to be avoided~~ Immutable story
- ~~Authoritative Author~~ Game presents the story. Level designer = author of experience
- ~~Sequence As Rationale~~ Story motivates all goals. Setpieces, QTEs etc.

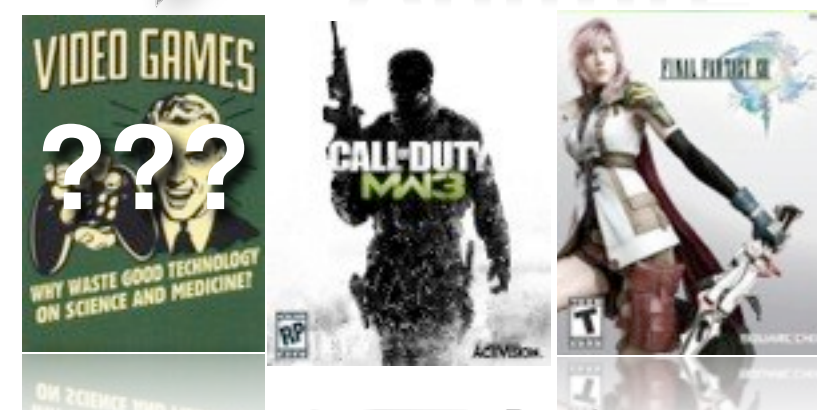
The aesthetics of those FPS, as expressed on either side, are radically different.

Oral Culture



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Subconsciously, whenever we're having a discussion about the core values of a game, we are debating to which aesthetics – of what age – games subscribe to. And that's where things get tricky, because all of this is a bit confusing:

- We're surrounded by artifacts of the print culture – like books and movies – and chronologically, it makes sense that computer games would be an extension of that time period. Obviously, they've influenced our medium.
- Yet the old way of thinking comes natural to us, and many computer games seem to go back in time and embrace the aesthetics of orality. Except that this doesn't immediately make sense...

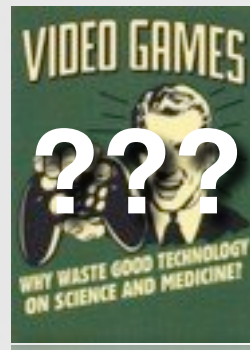


Obviously, there is no secret conspiracy in which ancient Greeks invented the computer and have – generation after generation – covertly passed down their knowledge to companies like Bethesda and... Wait a second!

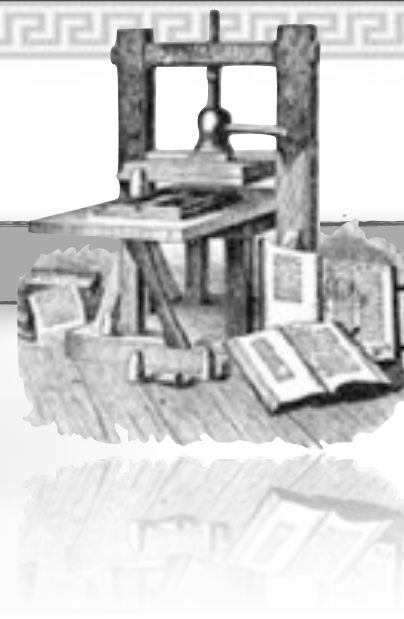


Maybe this is where the name “Arkane Studios” comes from! (But probably not.)

Oral Culture



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Print Culture



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So, this is confusing! And it's at the root of many discussions we're having in our daily developer lives.

Luckily, it's actually not all that hard to explain this apparent disconnect if we clear up one common misconception: we don't actually live in the age of Print Culture anymore.



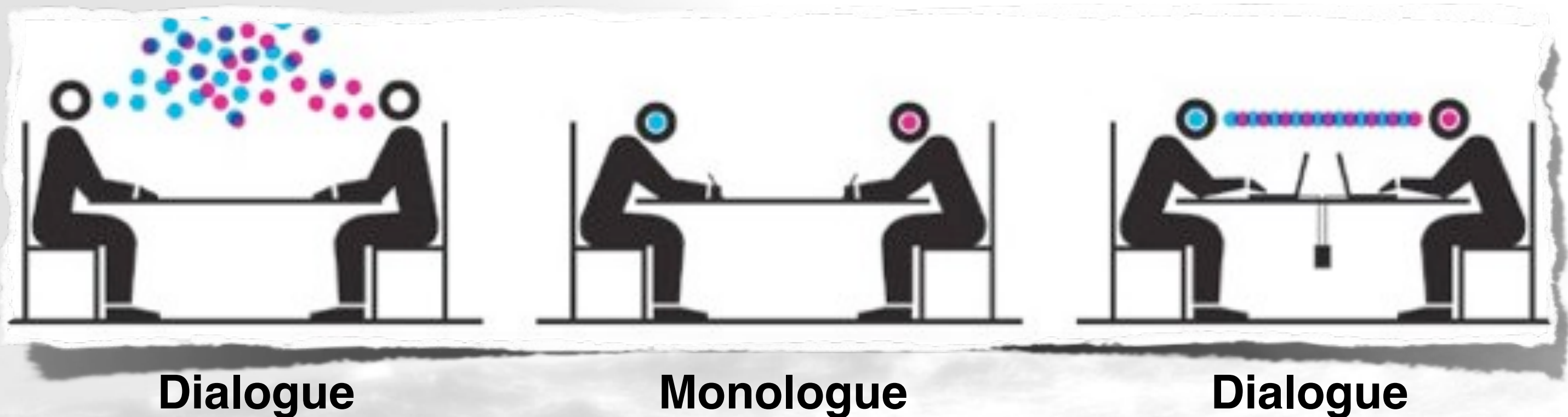
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We are transitioning to a new age, brought on by a new agent of cultural change: the computer. And just as in earlier ages, the way in which our culture now mediates ideas & content – procedurally, through the computer – fundamentally affects our views and expectations.

Oral Culture

Print Culture

Secondary Orality



Secondary Orality

"Essentially a more deliberate and self-conscious orality, based permanently on the use of writing and print."

Marshall McLuhan was the first to point out that the new ways of communication, built in the platform of electricity, are bringing us closer to the aesthetics of the old, oral cultures.

Walter Ong called this new age Secondary Orality, describing it as "essentially a more deliberate and self-conscious orality, based permanently on the use of writing and print". [15]

In other words, we're talking to each other again, but instead of talking into the void, we're talking via literacy.



The Internet is the best example of what secondary orality represents: Facebook, Google, Wikipedia, YouTube, Reddit, Twitter – all of these are ways in which we now gather content and in which we communicate.

Print Culture



Secondary Orality

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- Content is fixed & hard-coded
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- Single source and sequential. Monolithic
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- Sequence As Rationale

- Content is mediated procedurally through the computer
- Chunks of content, assembled via formula
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We live in an age that mediates all content procedurally – what amounts to performance. In today’s life, there’s always a layer of abstraction through the computer: information isn’t simply retrieved in its hard-coded state; it is constructed at runtime, for example in HTML code or on your Twitter feed.



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Because Secondary Orality builds on top of the print culture, all of the abilities and achievements we've gained, and the information we've created, remain. But our literate mindset has been restructured to resemble that of an oral culture: ...

Print Culture



Secondary Orality

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We are accessing knowledge non-linearly, which creates much more personal stories – people are used to building personal frameworks of knowledge.

Print Culture



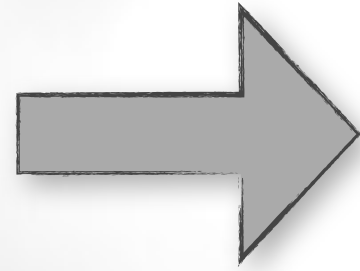
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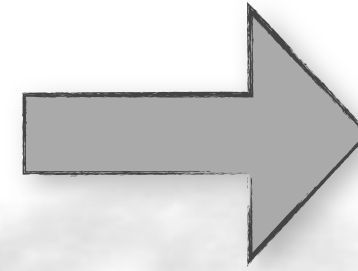
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Procedure also makes interference more normal again (anybody reading Wikipedia can edit it), so shared authorship is increasingly expected, and accepted as the norm.

**Oral
Culture**



**Print
Culture**

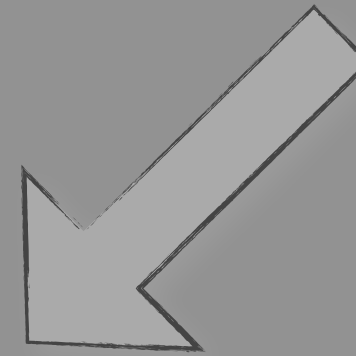
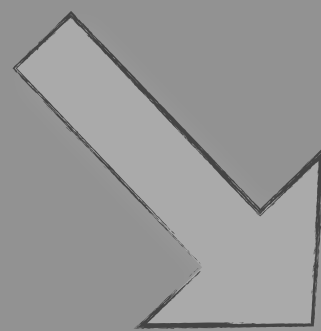


**Secondary
Orality**

A more accurate version of the cultural progression towards Secondary Orality might be...

**Oral
Culture**

**Print
Culture**



**Secondary
Orality**

...this one, where both cultural ages contribute to the final result.

Oral Culture



Print Culture



Secondary Orality



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As before, the cultural undercurrents of this age – the digital lifestyle that we’re now following – are going to bleed into the popular entertainment, especially because that entertainment (computer games) is based on the same agent that’s causing the change in the first place. Secondary Orality is procedural, and games are procedural.

It's my belief that...

Print Culture



Hard-coded

Secondary Orality



Procedural

... just like cinema is the perfect embodiment of Print Culture, computer games are the perfect embodiment of Secondary Orality:

A medium that uses its procedural nature to structure the personal, first-hand experiential meaning of oral cultures and the abstract concepts and big ideas established through the written word.

Computer Game

Content is mediated procedurally.

“A medium that uses its procedural nature to structure the personal, first-hand experiential meaning of oral cultures and the abstract concepts and big ideas established through the written word.”

- Authored meaning, but with a personal component
- Linear or non-linear, depending on preference
- Interference is encouraged, but the authored structure always stays intact
- Sequence structures the overall experience, which has personal goals
- Designer as guide who encourages abdication of authorship

Secondary Orality

The result is a unique expression of what Secondary Orality represents: computer games combine aesthetics of both ages and create something that is specific to our medium. Film and books can't do what computer games do. Neither can Orality. Computer games are the only entertainment that matches the cultural undercurrents of our time.



Talking To The Player

How Cultural Currents Shape Game and Level Design

Monday, April 22, 13

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So... “Talking to the Player – How Cultural Currents Shape Game and Level Design”. I hope I’m starting to give you a good idea of how the second part of the description is true.



Talking To The Player

How Cultural Currents Shape Game and Level Design

Monday, April 22, 13

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Let's get to the "Talking" bit. Let's see if we can make some of this knowledge applicable and use it to talk about games in specific terms that matter to us in daily developer life.



Computer Game

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Secondary Orality

Frankly, saying that *this* definition here describes a game, and that this game is an expression of Secondary Orality sounds grand, but what does it really mean?

Well, what is “really” means is difficult to describe, because games cover such a huge range and can generate meaning in so many different ways – it’s hard to figure out what to focus on.

But if we go with this definition, that games use procedurality to sequence personal experiential meaning and abstract, big ideas, we have something to go on: ...

Computer Game

Content is mediated procedurally.

“A medium that uses its procedural nature to structure the personal, first-hand experiential meaning of oral cultures and the abstract concepts and big ideas established through the written word.”

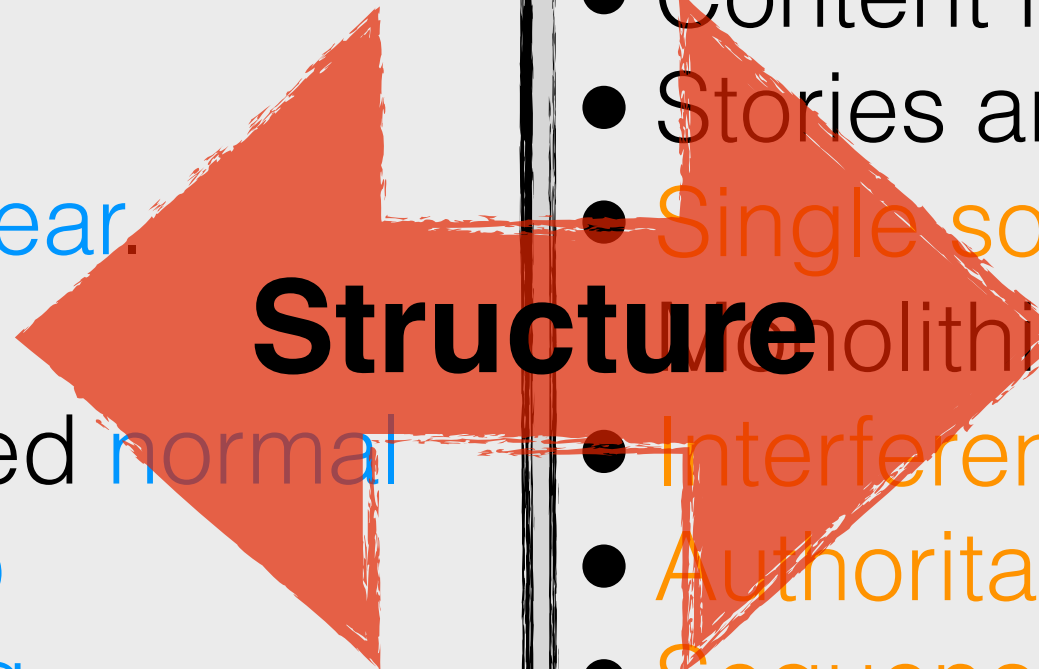
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Gameplay

- Content is fixed
- Stories are homogenized
- Single source and sequential.
Monolithic.
- Interference is to be avoided
- Authoritative author
- Sequence As Rationale

Embedded Meaning

Structure



- Every game has first-hand experiential meaning – we call this gameplay.
- Almost every game has some sort of message that it is trying to convey via pieces of embedded content.
- At some point these elements, with their different aesthetics from different cultural ages, will clash via the authored structure of the game. And that clash is something very specific to focus on!

We can ask some specific questions that explore this inherent conflict, which might help us understand games better as a whole.

Computer Game

Content is mediated procedurally.

“A medium that uses its procedural nature to structure the personal, first-hand experiential meaning of oral cultures and the abstract concepts and big ideas established through the written word.”

- What is the common denominator between gameplay and embedded meaning?

If gameplay and embedded content coexist in a game, we might ask what the common denominator between gameplay and embedded meaning is.

Which of course then begs the question...

Computer Game

Content is mediated procedurally.

“A medium that uses its procedural nature to structure the personal, first-hand experiential meaning of oral cultures and the abstract concepts and big ideas established through the written word.”

- What is gameplay?
- What is embedded meaning?
- What is the common denominator between gameplay and embedded meaning?

...what the essence of gameplay and of embedded meaning is.

If we figure out their common metaphor, we can use it to talk about specific issues that every level designer and narrative designer struggles with on a daily basis.

Computer Game

Content is mediated procedurally.

“A medium that uses its procedural nature to structure the personal, first-hand experiential meaning of oral cultures and the abstract concepts and big ideas established through the written word.”

- What is gameplay?
- What is embedded meaning?
- What is the common denominator between gameplay and embedded meaning?
- How do we integrate gameplay and embedded meaning into a larger structure so that it feels natural?

For example, how do we integrate gameplay and embedded meaning into the larger structure of the game, so that everything feels natural and harmonious?

Computer Game

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- What is embedded meaning?
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- ***What is gameplay?***
- ***What is embedded meaning?***
- ***What is the common denominator between gameplay and embedded meaning?***
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Print Culture



Embedded Meaning

Secondary Orality



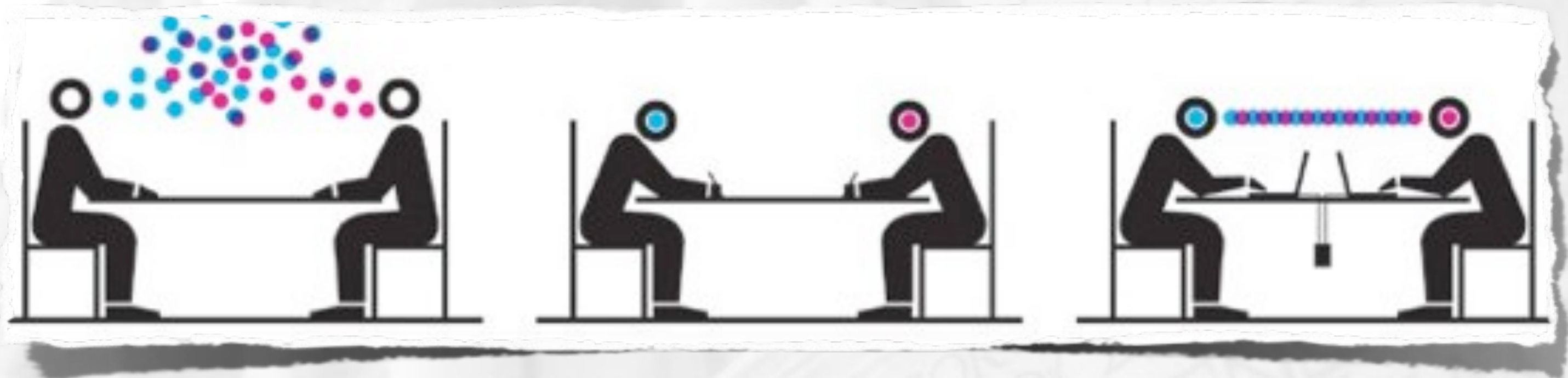
Gameplay

We know that gameplay and embedded meaning are products of different ages, and just a few slides ago I used a common metaphor for both...

**Oral
Culture**

**Print
Culture**

**Secondary
Orality**



Dialogue

Monologue

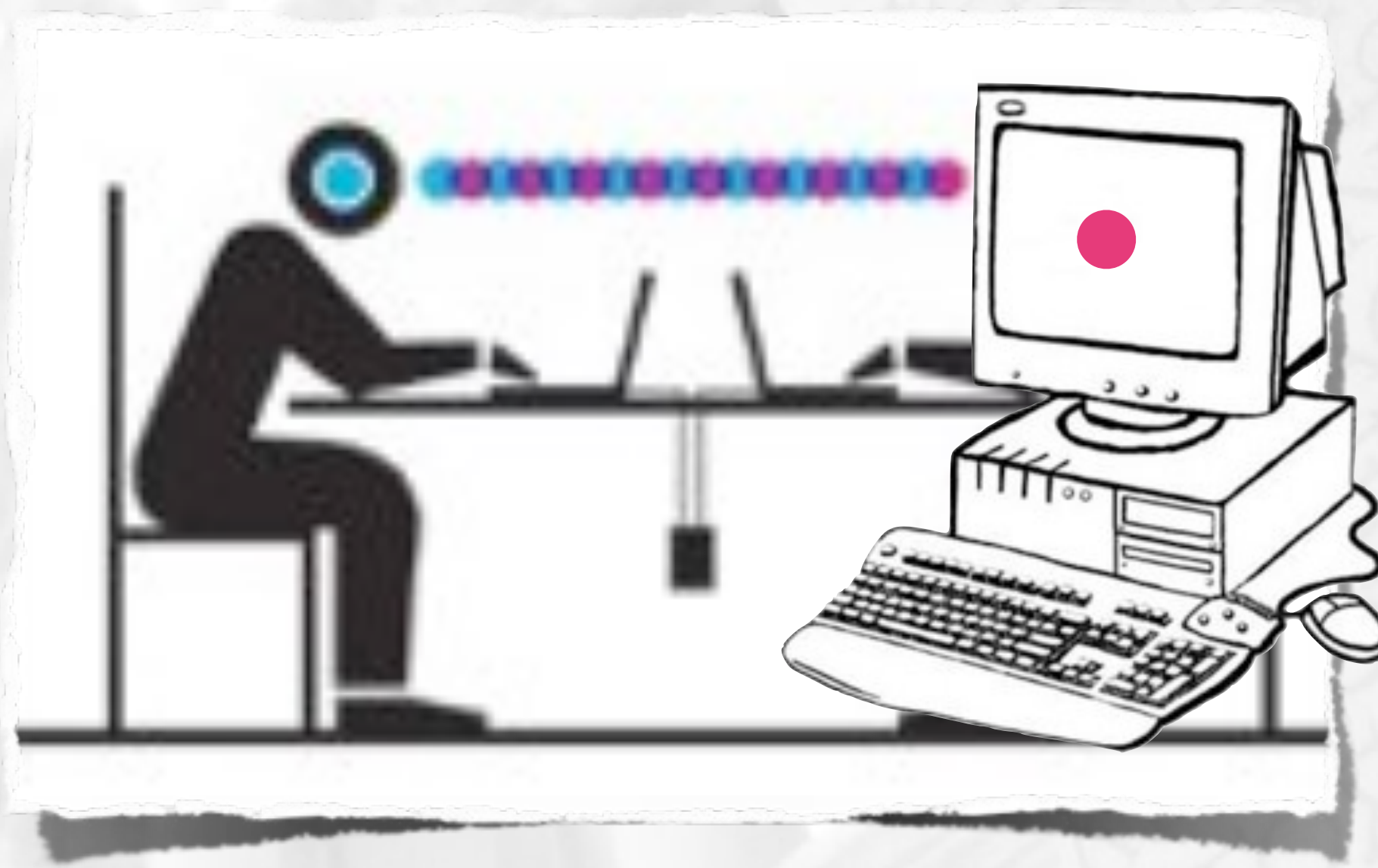
Dialogue

...when I framed the cultural ages in terms of communication:

- Orality is an age exclusively built on Dialogue.
- Then the printing press comes along and locks us into our heads – it creates an age characterized by Monologue.
- But Secondary Orality restores us to an age in which we talk to each other again.



I used the Internet and social networks as examples earlier, because they are easily understood in the context of Secondary Orality. But it's important to point out that Dialogue is the very essence – well, not of the computer itself – but of our interaction *with* the computer!



Procedurality

The ability to encode a set of instructions that act on input data in premeditated ways.

If you think about it, every input into the computer is a question, and every response from the computer is an improvised answer, generated at runtime. Thus each interaction with a computer can be framed as a Dialogue with the machine, based on the procedures encoded in the program.

This applies to computer games, as well! [16]

Monologue



Hard-coded

Procedural Dialog



Procedural

Player Verbs

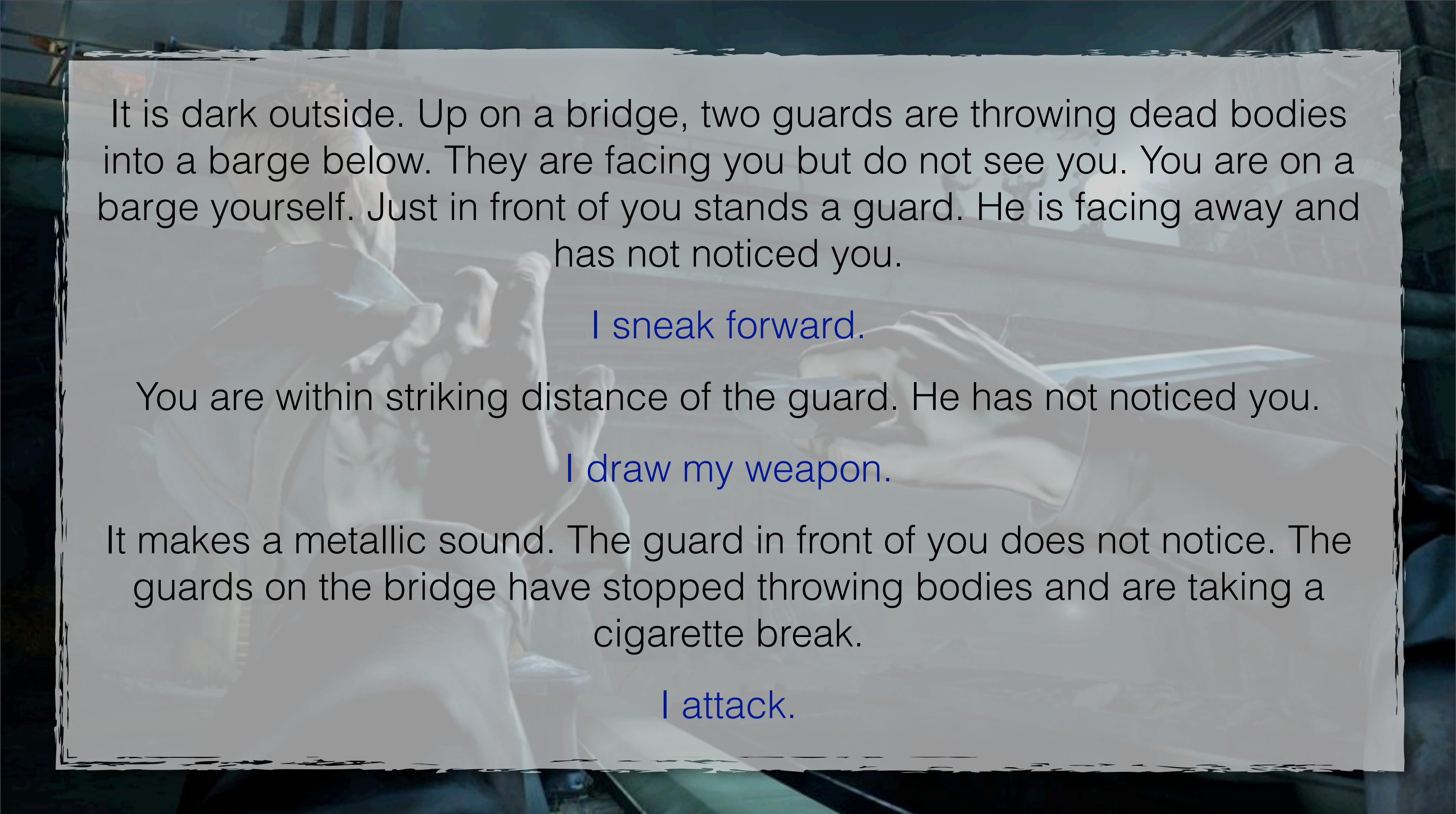


We often frame the player's interaction with the game in terms of "player verbs", which represent the gameplay abilities afforded to the player. And really...



$\Sigma = \{ A, B, X, Y, \text{D-pad}, \text{Start}, \text{Back}, \text{LB}, \text{LT}, \text{RB}, \text{RT}, \text{LStick}, \text{RStick} \}$
Player input $\in \Sigma$

...to a modern console controller with much fewer (sometimes context-sensitive) inputs.



It is dark outside. Up on a bridge, two guards are throwing dead bodies into a barge below. They are facing you but do not see you. You are on a barge yourself. Just in front of you stands a guard. He is facing away and has not noticed you.

I sneak forward.

You are within striking distance of the guard. He has not noticed you.

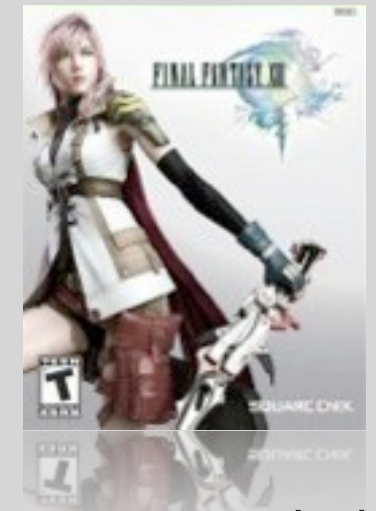
I draw my weapon.

It makes a metallic sound. The guard in front of you does not notice. The guards on the bridge have stopped throwing bodies and are taking a cigarette break.

I attack.



Computer Game



Content is mediated procedurally.

“A medium that uses its procedural nature to structure the personal, first-hand experiential meaning of oral cultures and the abstract concepts and big ideas established through the written word.”

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- Stories are **personal**
- **Aggregative** and **non-linear**.
“Mosaic”
- **Interference** is considered **normal**
- **Abdication of authorship**
- **Personal goal structuring**

Procedural Dialogue

- Content is **fixed**
- Stories are **homogenized**
- **Single source** and **sequential**.
Monolithic.
- **Interference** is to be **avoided**
- **Authoritative author**
- **Sequence As Rationale**

Monologue

Monologue



“A section of the game with print culture aesthetics, representing a pre-authored, authoritative stream of consciousness.”

A monologue section is every part of the game that subscribes to the aesthetics of print culture, in that represents a pre-authored authoritative stream of consciousness. Examples might be:

- Cutscenes: The game shifts from an active dialog with the player to a passive environment where it's telling the player something – literally a monologue.
- Quicktime events: The game shifts from its regular, systemic play space (the Procedural Dialogue) into a prescriptive, designer-authored sequence of events. It's not a true monologue, but it feels like one because the conversation is very lop-sided – it can only be advanced through special-case player verbs.
- Finally, a disproportionate overload of a context-sensitive buttons (for example, the “Interact” button) might read as monologue because it creates an asymmetry between the player's regular dialogue with the game and this specific interaction: the regular “Press Y to Open Door” turns into “Press Y to start Mars Rover EDL and engage Sky Crane”, the game is monopolizing the conversation, based on a single player verb.

Computer Game

Content is mediated procedurally.

“A medium that uses its procedural nature to structure the personal, first-hand experiential meaning of oral cultures and the abstract concepts and big ideas established through the written word.”

- ✓ What is gameplay? **Procedural Dialogue.**
- ✓ What is embedded meaning? **Deferred Monologue.**
- ✓ What is the common denominator between gameplay and embedded meaning? **Both form a conversation.**
- How do we integrate gameplay and embedded meaning into a larger structure so that it feels natural?
- How do we assert authorship without hard-coding meaning?



A computer game structures Procedural Dialogue and Monologue into a **Conversation**.

If we frame gameplay as a Procedural Dialogue, and embedded meaning as a monologue, we can look at the overall structure of the game as a conversation between the computer and the player.

And what I like about this metaphor is that I can easily come up with simple, common-sense rules that should govern this conversation, which will provide answers...

Computer Game

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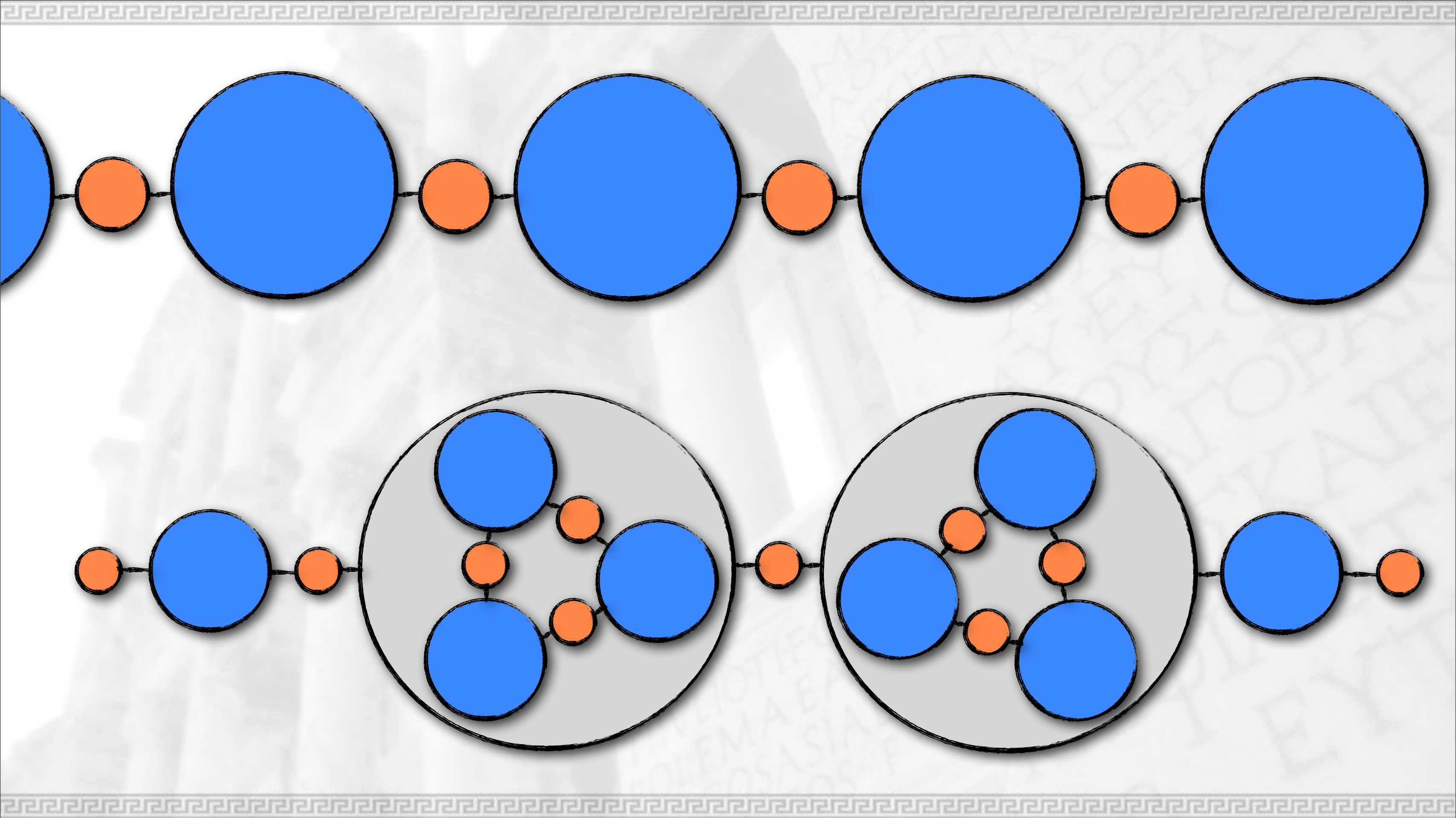
“A medium that uses its procedural nature to structure the person's experience of cultures and the written word.”



- ✓ What is gameplay
- ✓ What is embedded
- ✓ What is the connection between gameplay and embedded meaning?
- **How do we integrate gameplay and embedded meaning into a larger structure so that it feels natural?**
- How do we assert authorship without hard-coding meaning?

...to the next question on our list.

But before we get into this question, we need to make one quick detour – and acknowledge that there are...



...many ways of structuring experience in a game. In fact, we touched on this a bit earlier in the context of cultural values and which aesthetics, of which age, our game should subscribe to: ...



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- Personal goal structuring **Player creates his own agenda, is always in control**

Oral Culture

- ~~Content is mediated impersonally via artifact~~
- Content is fixed & hard-coded **Special Case**
- Content is homogenized **Designer Story**
- Single source and sequential. Monolithic **Linear, with clear beginning & end**
- Interference is to be avoided **Immutable story**
- Authoritative Author **Game presents the story. Level designer = author of experience**
- Sequence As Rationale **Story motivates all goals. Setpieces, QTEs etc.**

Print Culture

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- I might embrace the values of Print Culture because I believe in strongly structured, linear stories – after all, there must be a reason we have perfected this art over the last 150 years. In trying to carry that tradition forward, my game will try to integrate gameplay and embedded meaning elegantly into one (probably linear) pre-authored sequence.
- Or I might rediscover the old age of Orality and embrace the values of aggregation and personal meaning – so my game will not be a linear sequence and will try to give the player a lot of agency over how the individual pieces of embedded meaning are extracted from the game by the player.

There is no clear “right answer” – I can channel different industry views and make a case for both extremes. I can also point out the problems that both sides have, when taken to extremes:

- Oral games are accused of not having enough impact in their presentation or story. Everything is so procedural that no strong themes emerge.
- Super-linear story games are accused of not giving the player enough control. “Why is this a game?”, people ask.

But honestly, both those are extremes, and chances are that you can find yourself somewhere in the middle. For the rest of this talk, I want to focus on a simple...



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Oral Culture

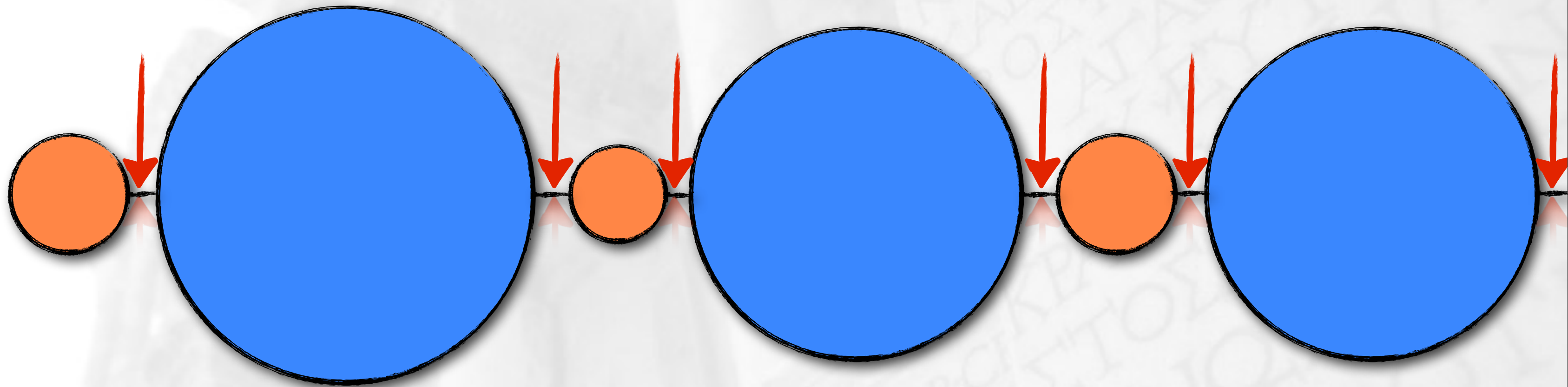
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Print Culture

...linear structure, because I believe that looking into the alternative – open-world, non-linear or even procedural structures – is a rabbit hole that we do not want go down while we're still in the middle of figuring out the questions that we have already posed.

So we'll look at something...

Mission Structure



Dialogue

Monologue

...like this. And if this chart represents a mission in our game, we are worried about those little connector lines. This is where we transition between the procedural dialogue and the monologue of the game.

Computer Game

Computer game is a medium that uses experiential meaning to convey a message.

“A medium that uses experiential meaning to convey a message.”
personal, first-hand concepts and big ideas



- ✓ What is gameplay
- ✓ What is embedded
- ✓ What is the communication between gameplay and embedded meaning.
- **How do we integrate gameplay and embedded meaning into a larger structure so that it feels natural?**
- How do we assert authorship without hard-coding meaning?



A computer game structures Procedural Dialogue and Monologue into a **Conversation**.

What I like about the metaphor of gameplay as a conversation is that I can easily come up with simple, common-sense rules that should govern this conversation.

Honestly, to me there's just one rule when I'm talking to somebody. Well, maybe two: I want the other person to actually be interested in me – not somebody who is so self-absorbed and narcissistic that he only likes to hear himself talk. But even more importantly: ...



...I don't him to be rude.



Imagine you're walking alongside somebody, engaged in a conversation. The other person is interesting, making great points. You're asking some questions, you're making some points yourself, and just as you're having a really interesting, deep exchange, the other guy abruptly grabs you by the arm, starts pulling and shoving you around – and he's just ignoring everything you say and is talking over you!

We wouldn't put up with this in real life. Why would we let games do it?

Creating Good Conversations

Monologue sections...

- Should never trigger unexpectedly

Pieces of monologue, like cutscenes, should never trigger unexpectedly. If the game takes away control from the player (effectively monopolizing the conversation), the player needs to be able to anticipate that: the transition should happen on player input, or because the player successfully completes of a player goal (i.e. climbing into a window that was clearly established as a mid-term goal, jumping down a balcony when it's clear that our goal was to get into that courtyard).

Now imagine the same situation again: ...



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You're walking alongside this person again, and this time your conversation partner has learned some manners: he waits until you're done talking (or you invite him to speak) before he starts his monologue. You're ready, you're listening – after all, you engaged in this conversation in the first place because you expected the guy to have interesting things to say!

And then... he starts blabbing about something that's completely unrelated to everything you were just talking about. You were having an interesting conversation about the finer points of duck hunting, and all of the sudden he tells you about the dangers of falling in love with the wrong woman.

Once again, that's rude. And we wouldn't put up with that in real life.

Creating Good Conversations

Monologue sections...

- Should never trigger unexpectedly
- Need to be related to what the player has been doing

Monologue sections should be a logical extension of the conversation you are having with the game. They need to make a point that's very related to what you and the game have been talking about.

These are just a couple of examples – I'm sure you can extend the metaphor easily and come up with new ones easily.

Creating Good Conversations

Monologue sections...

- Should never trigger unexpectedly
- Need to be related to what the player has been doing
- Shouldn't advance only if the player says "the magic word" (QTEs)
- Shouldn't be on topics the player is not able to talk about during dialog (unless the player obviously doesn't want to raise the topic himself)
- Shouldn't preach things that the player would want to discuss himself
- Shouldn't be a way cooler version of anything the player can talk about

Don't be rude!

Keep transitions predictable!

In fact, some of them are here.

For all guidelines, the rules are simple: don't be rude, and keep transitions predictable.

As long as you do that – as long as the player has the ability to opt in when the game starts talking or can easily predict the shift – you have a good recipe for integrating static content with gameplay regardless of which game you're making. Your game might actually be quite systemic – but every so often, there are story cutscenes. And when they occur, you should keep these lessons in mind.



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Print Culture

Additionally, we should also look at what happens if we push this integration of elements as far as possible – to the point where we're actually trying to emulate the aesthetics of a film.

We should explore what it means to make a "Cinematic Action Adventure" like Uncharted.



It starts with the question: what is a “Cinematic Action Adventure”?

I believe that once we get past ideas like “It means emulating film camera lenses”, “movie framing”, “creating a story-driven experience” etc. ...



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Print Culture

What it really means is going all in on the values of the print culture side of the spectrum – which includes embracing to the concept of Sequence As Rationale to structure the game, drive the story and motivate player goals.

If film is an authored stream of consciousness that reasserts its inherent, unquestioned logic with every cut...

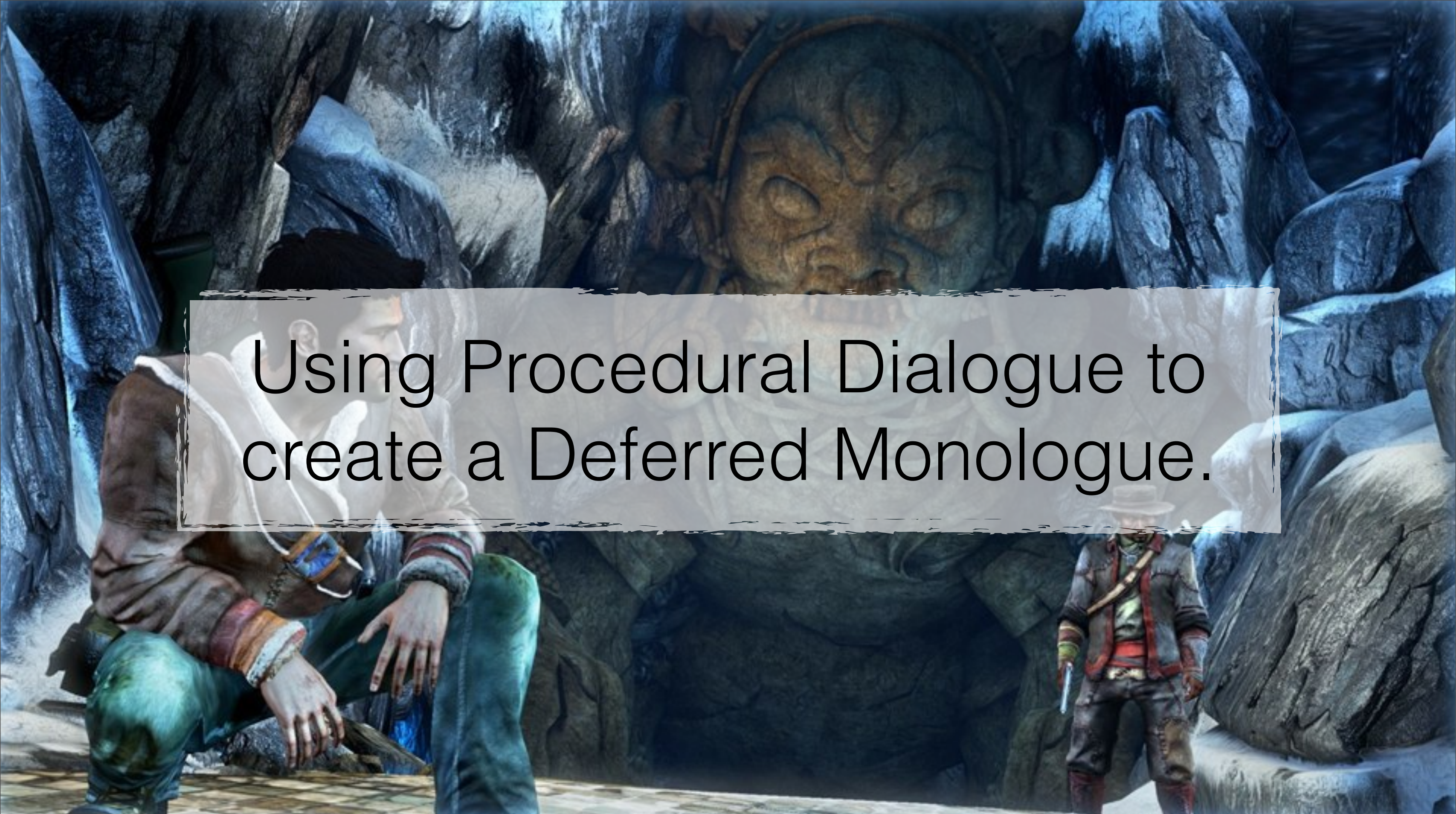


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A cinematic action adventure tries to do the same:

The designer is creating an authored stream of consciousness and expects the player to get into the mindset of wanting to reconstruct that stream. The game still unfolds as procedural dialog, but the aesthetics that it is emulating...



Using Procedural Dialogue to create a Deferred Monologue.

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...are those of a deferred monolog.

That means creating an environment in which player and designer are always on the same page: there can't be any doubt about what will have happened in any gameplay situation. That's the only way to keep this flow – this stream of consciousness – alive and aligned, because once they diverge, they're hard to realign again. [17]

That doesn't mean shallow gameplay without player choice!

It just means that each gameplay section needs to lead to one predetermined outcome – the “What happened?” need to be obvious ahead of time and never in doubt. “Everybody will have died”, for example. It can't be “I could sneak around this situation, or do non-lethal takedowns, or I could fight.”

It needs to be one predetermined outcome. And then, exactly “How?” it happened can be left up to the player, creating a personal player story inside the predetermined print culture framework.

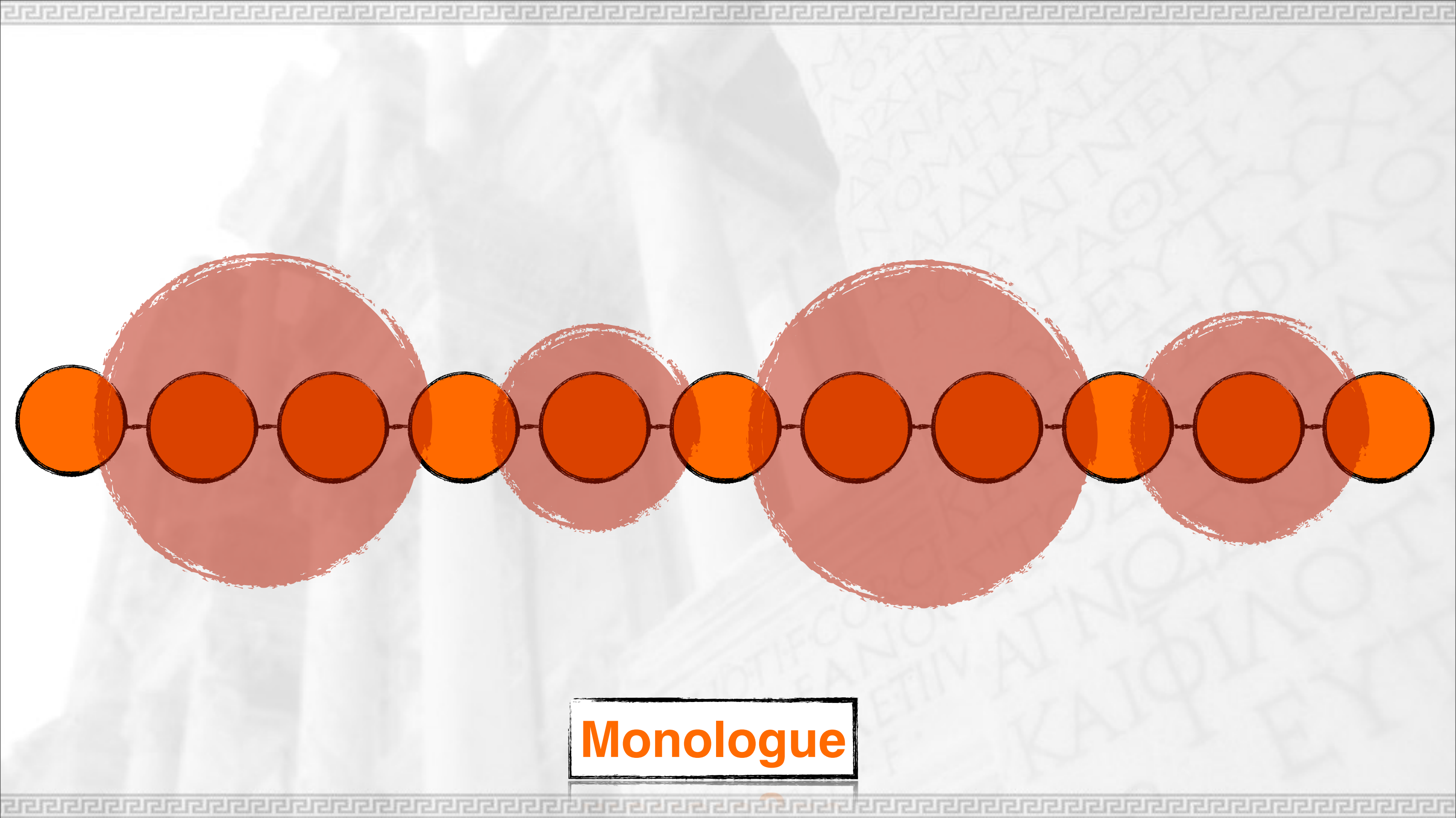
I did not work on Uncharted, and encourage you to watch the brilliant GDC lectures that Naughty Dog developers have given. But I've been thinking about this genre quiet a bit, and I know that pulling off Sequence As Rationale in an active game environment...



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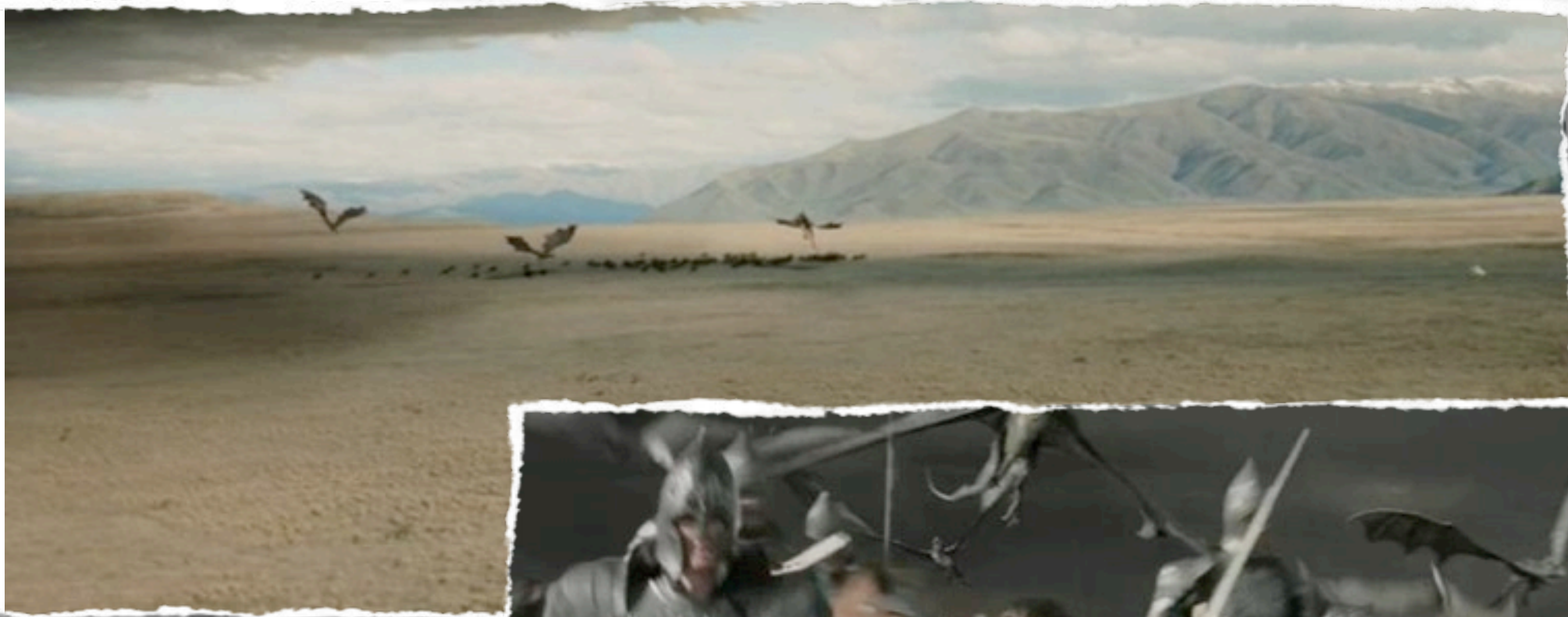
...is incredibly difficult. If you're trying to emulate film aesthetics I'd just like to point out a couple of general caveats that we have to be aware of, because movies can get away with Sequence as Rationale much more easily than games.



Movies are able to localize their rationale to the vicinity of surrounding cuts. They can create “Bubbles of Logic”.

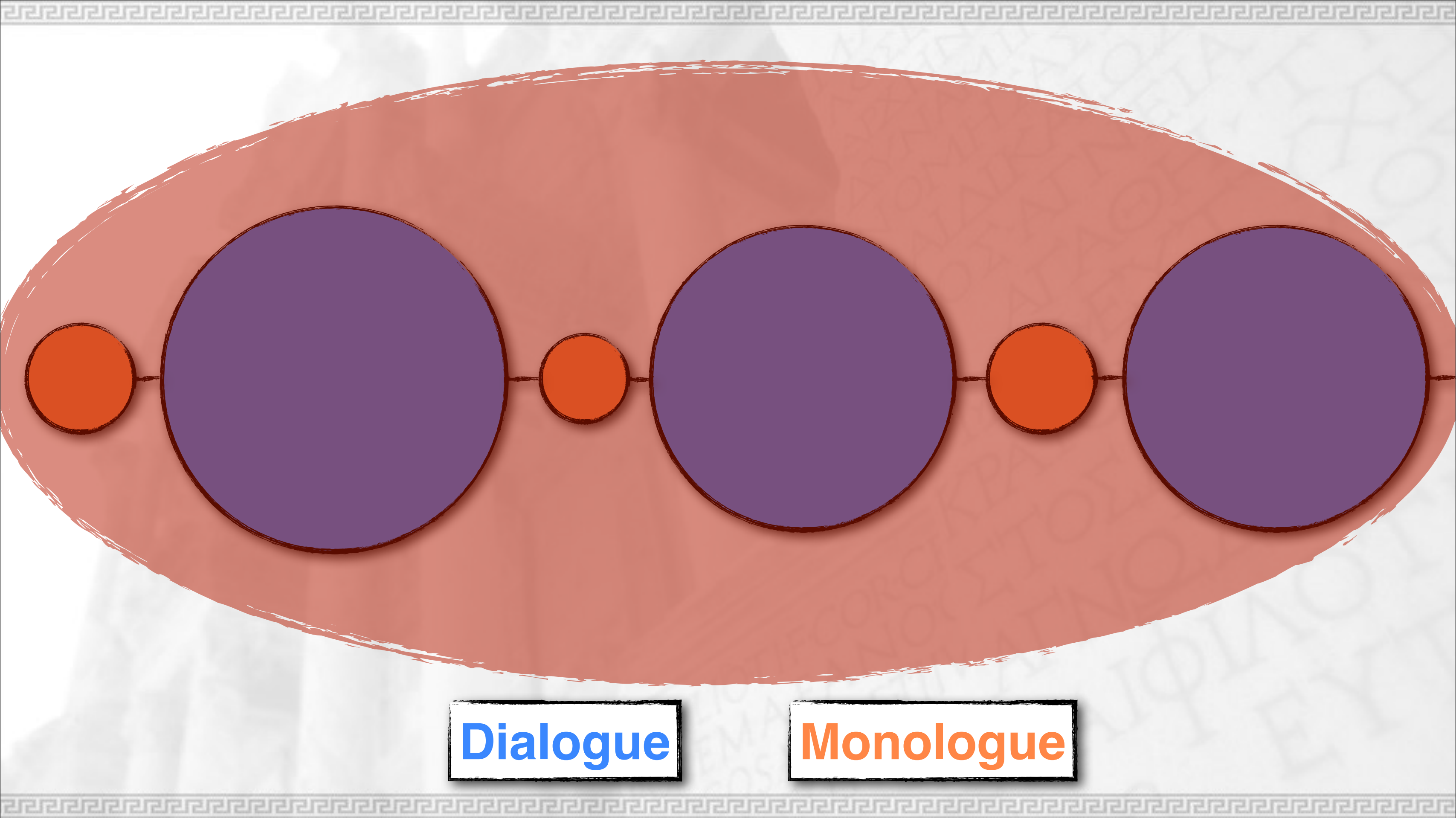


This is the reason, for example, that Faramir can use a single arrow to drive away a Fellbeast in one scene from Lord of the Rings...



... while, just a little bit later, a whole army of Gondorian soldiers can get decimated by three Fellbeasts with no means of defense.

I mean, really? After that earlier scene you would think that those soldiers would have three friggin' arrows to spare! But movies get away with these inconsistencies all the time. Try it yourself, you'll be surprised by how often you don't notice things in movies that would stand out like a sore thumb in a game.



In a game, the player needs to be able to rely on a consistent systems space with one internally consistent logic, and that's where conventions from Print Culture don't automatically carry over.

So there are some things that we should not do – even in a cinematic action adventure.

Player Verbs



For example, we should not lock out player verbs without the player knowing about it. Whenever you assert Sequence As Rationale in your game – for example by restricting player abilities in one section of the game because it adds to the drama – that change needs to clearly register. It needs to be shown to the player, it needs to be consistent with behavior during gameplay sections, and it needs to be motivated by perceptible external forces.

I'm sure you can imagine how...



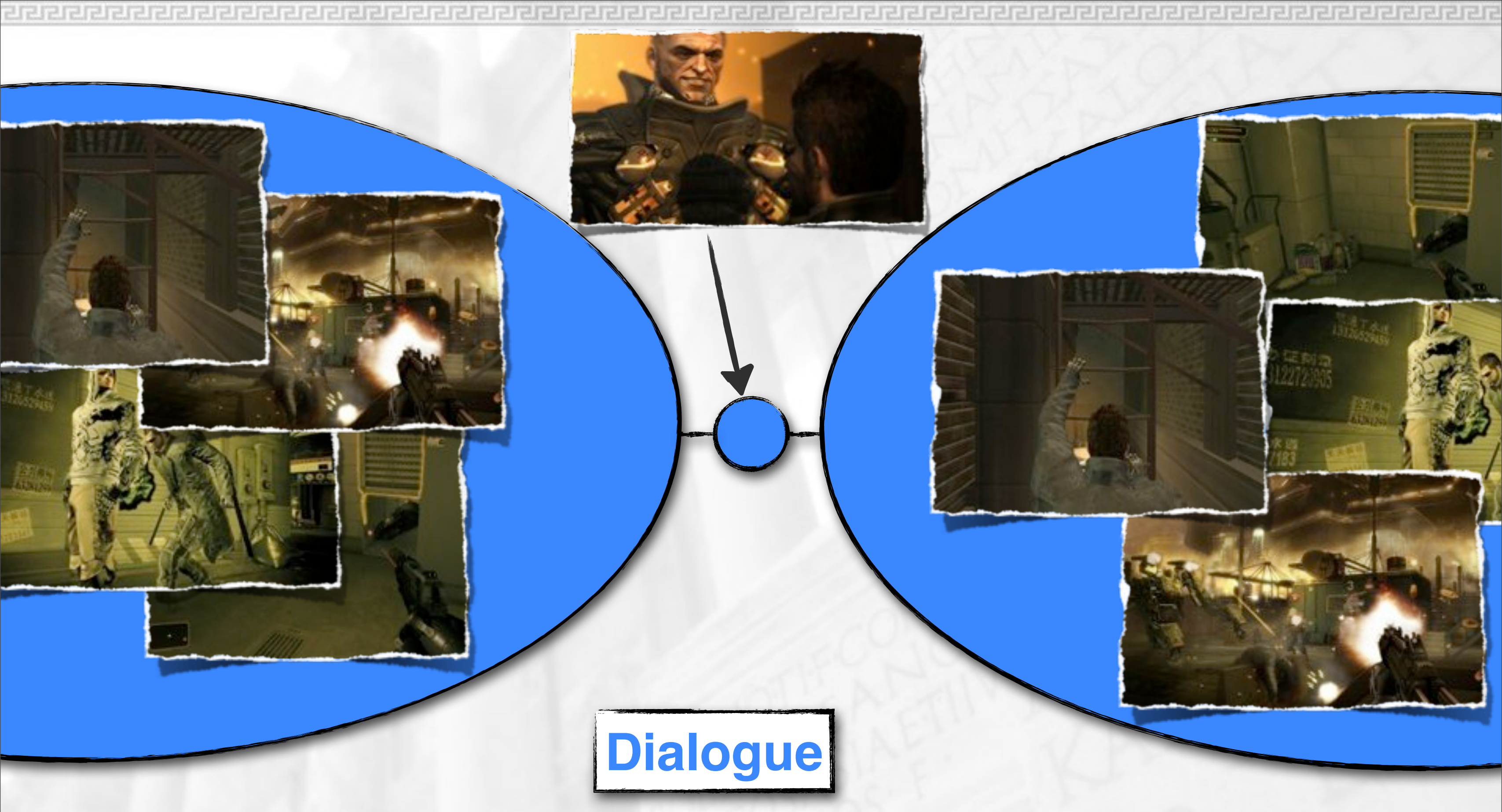
...disrespectful the alternative would be in our dialog metaphor: imagine that somebody who you've been talking to the entire time – all of the sudden – starts acting like he doesn't understand verbs that you've been using in your conversation all along. You'd just think that guy is a dick, who is intentionally ignoring what you're trying to say.

Artificially restricting the Procedural Dialogue of a game, especially without explanation, rubs players the wrong way.



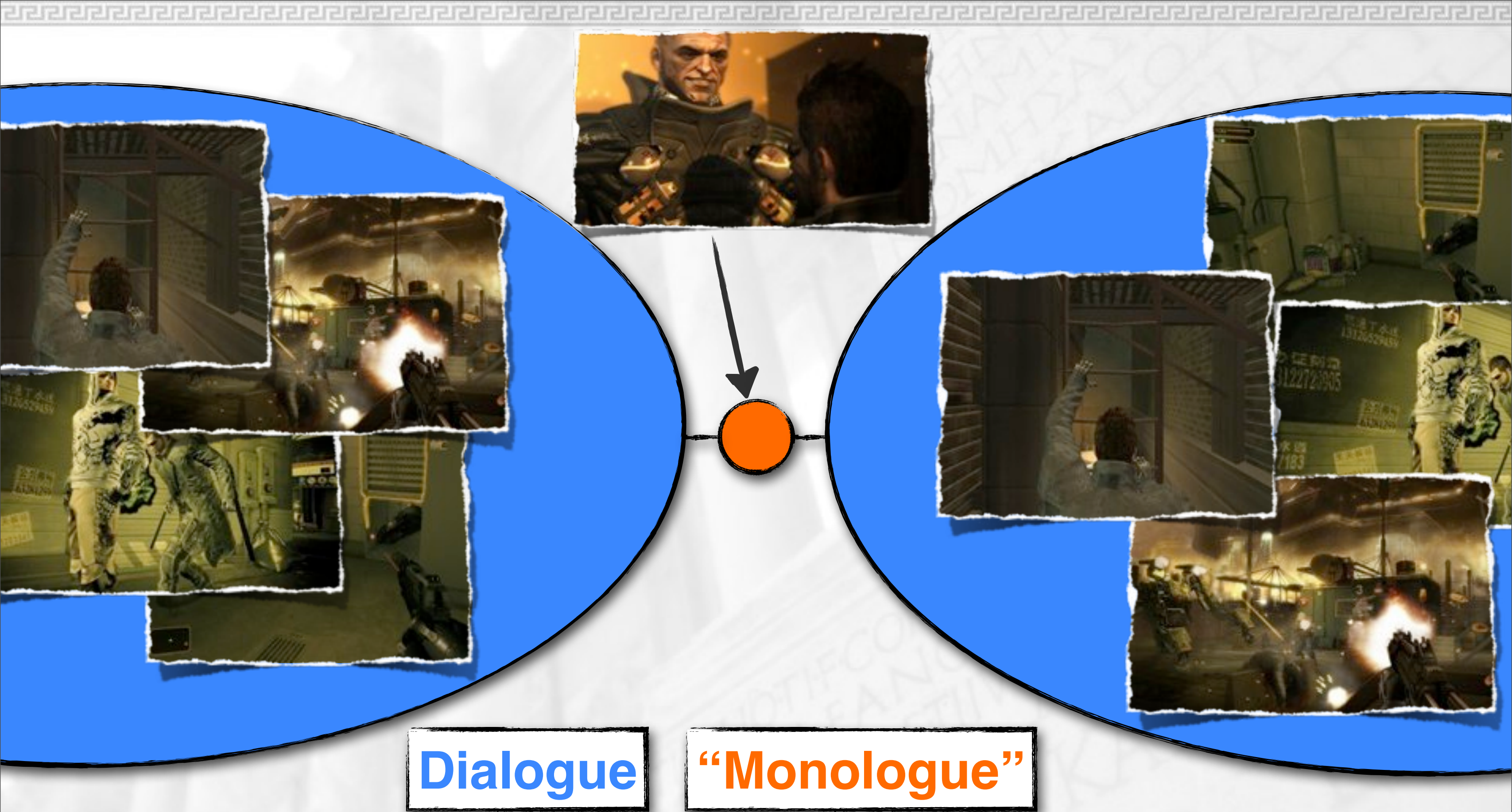
You might remember the discontent over the boss fights in Deus Ex: Human Revolution. It's a great game – I finished it and loved it! But there were three sections of the game that forced the player to play in a very specific way – fight to the death – even though the rest of the game offers a lot of additional expressiveness like stealth and non-lethal play.

Part of this uproar was simply over the disproportionately high difficulty level of these boss fights.



But there's something more fundamental: players didn't understand (or accept) the rationale behind these restrictions. It was never explained why the Procedural Dialogue with the game was curbed in these sections – and it wasn't obvious that many topics (like trying to do a melee takedown on the boss) were suddenly considered off-topic.

So, even though the boss fights were gameplay...



Seen in context of the rest of the game, these sections felt like a forced monologue.

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“Mosaic”
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Oral Culture

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Print Culture



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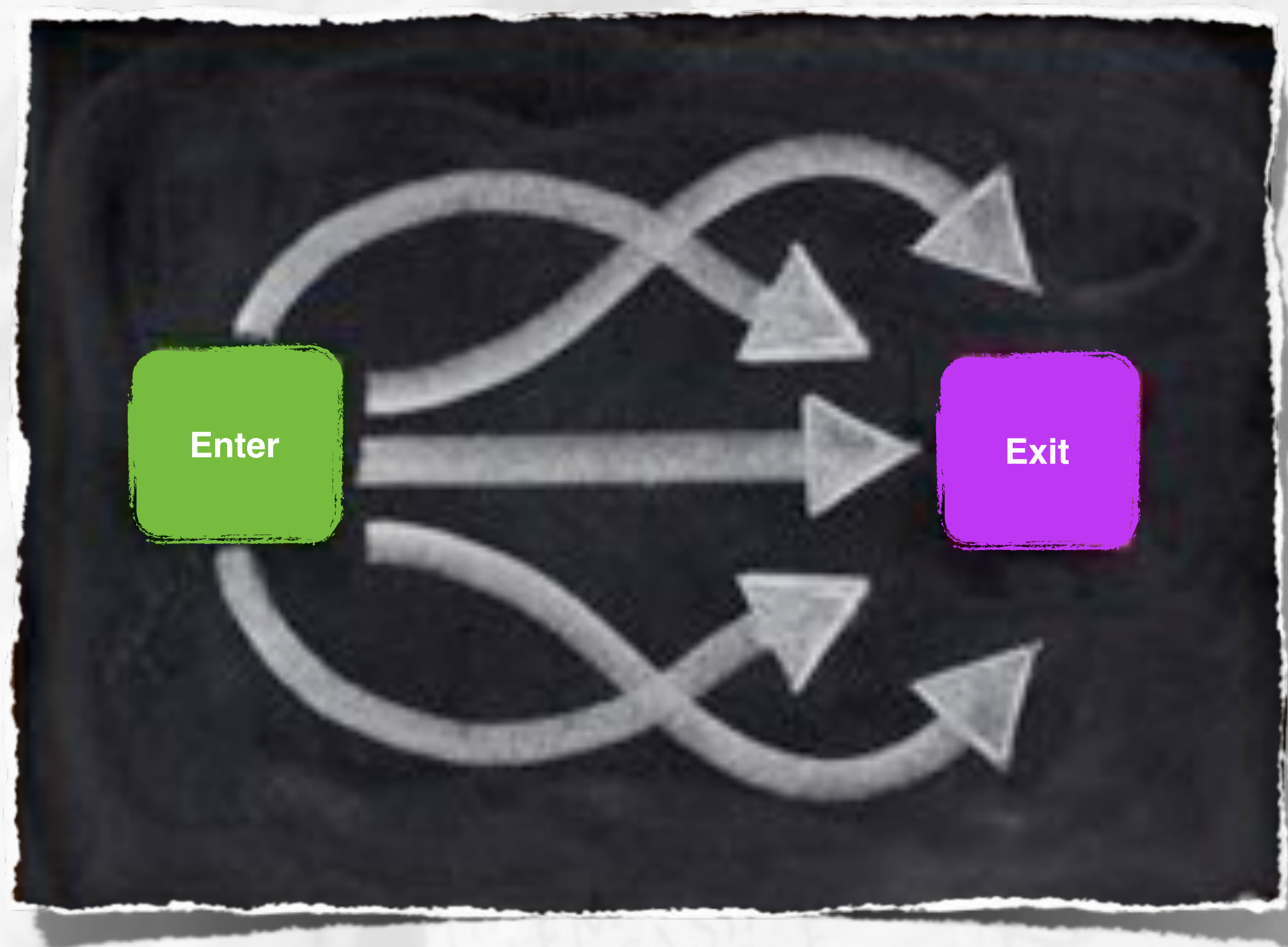
Print Culture



... – like Sequence As Rationale – don’t automatically apply to our medium. And this is difficult to remember!



Print can be remarkably imperialistic. It locks us in a particular mindset. Literacy has a grip on the way we think, because it reenforces its convention of unquestioned Sequence As Rationale every day. It is easy to get caught up in that mindset. (If you're reading the speaker notes to this talk, it's happening right now!)



But in games, often your sequence cannot be authoritative. In fact it's very likely that your sequence is not even obvious to the player – unless you restrict that part of the game to a quasi-monologue like a QTE!

So, don't get caught up in the dogma of your own sequence! There are always many different paths through the levels of your game – both physically and conceptually.

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Gameplay As Dialog, Structure as Conversation

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If we frame both gameplay and embedded content as a conversation, we're using the same metaphor for something that has quite different aesthetics – and now we can talk about how we gracefully transition in and out of them (and when we shouldn't).

Our industry is still struggling with this. There are many examples in all of our games where the transition feels abrupt, unexpected, and... “wrong”. As a result the player feels jerked around, and he doesn't have a great feeling of motivation and intentionality – he just follows the authored sequence of the game because it's there. But for some nagging reason, the inherent logic of following that sequence doesn't hit home the way we, as authors, expected it to – and it certainly doesn't work as it would in a movie. Well... we now know why.

We can fix this! If we keep remembering that we live in a new age of dialogue, if we keep thinking about the game as a conversation with the player, and if we understand why some of the old rules don't apply.

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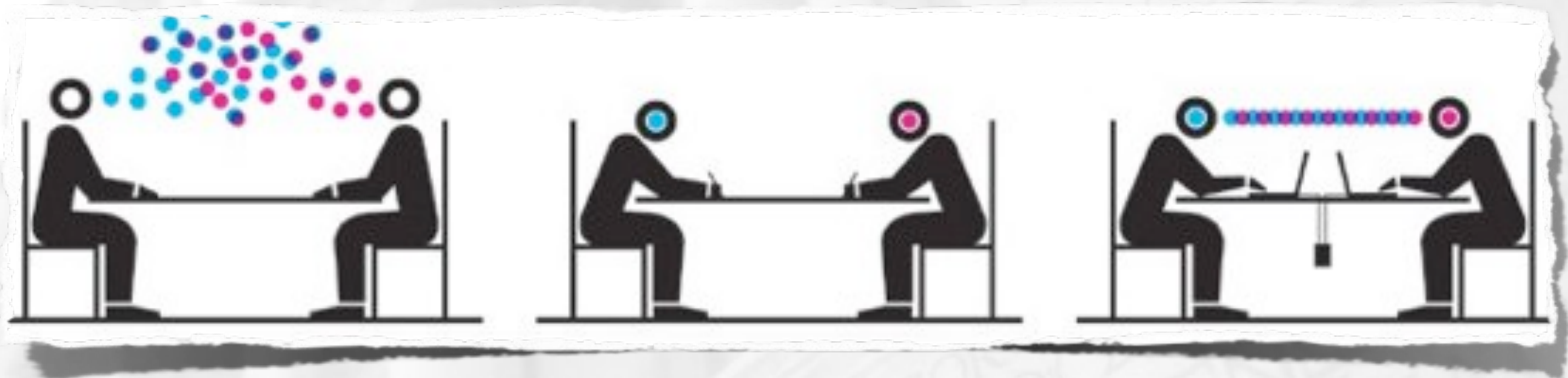
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- ✓ How do we integrate gameplay and embedded meaning into a larger structure so that it feels natural? **Don't be rude!**
- **How to assert authorship without hard-coding meaning?**

Which brings me to the last point on our list. So far we've looked at integrating embedded meaning and gameplay – and that embedded meaning follows the familiar, hard-coded authorship paradigm of the Print Culture. But how does it compare to authorship in the gameplay sections? How do *we*, the designers, talk to the player through our work?

**Oral
Culture**

**Print
Culture**

**Secondary
Orality**

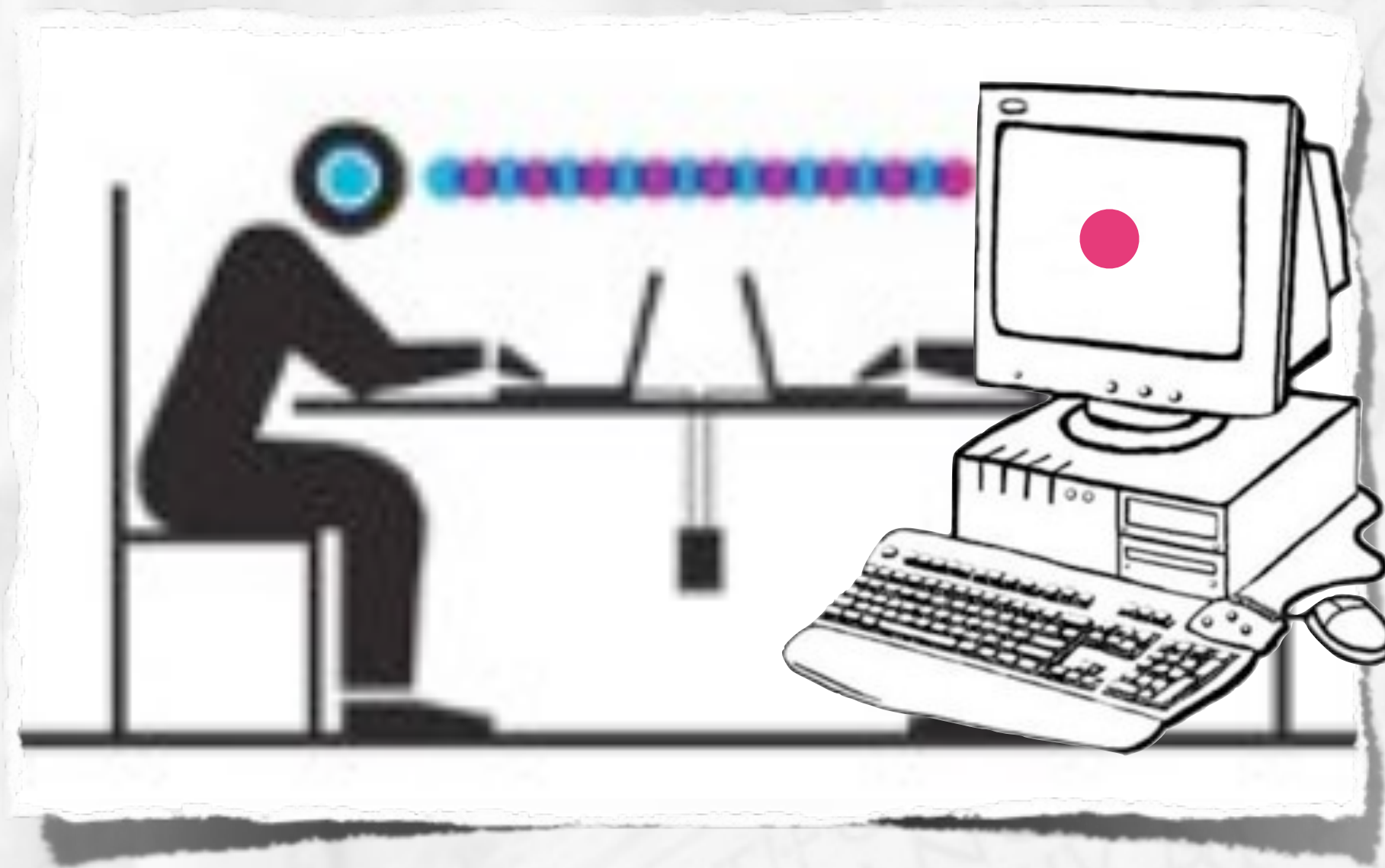


Dialogue

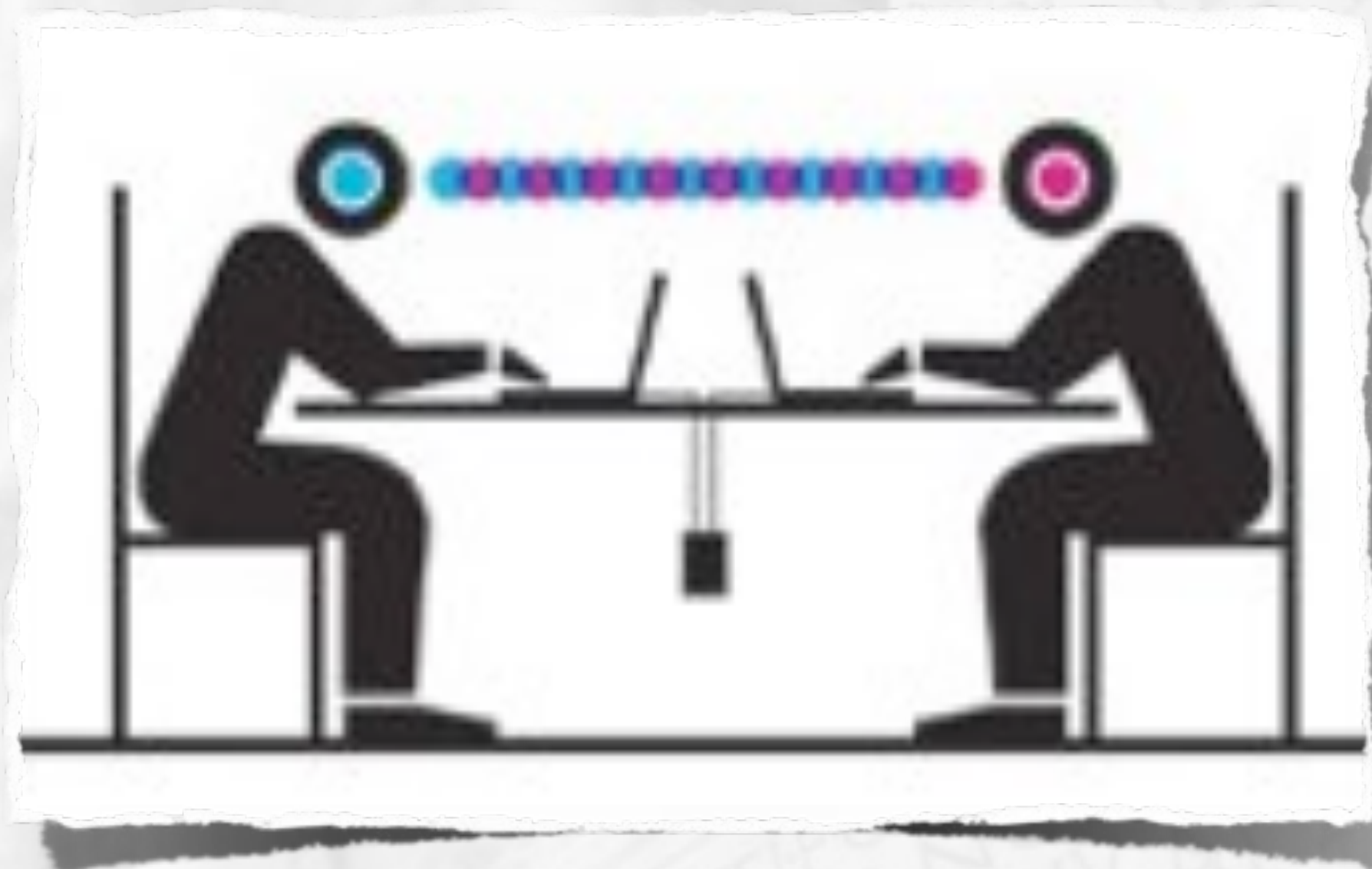
Monologue

Dialogue

We said earlier that, through the computer, Secondary Orality creates a new age of dialogue, and that this dialogue is fundamentally anchored in our interaction with the computer – because...



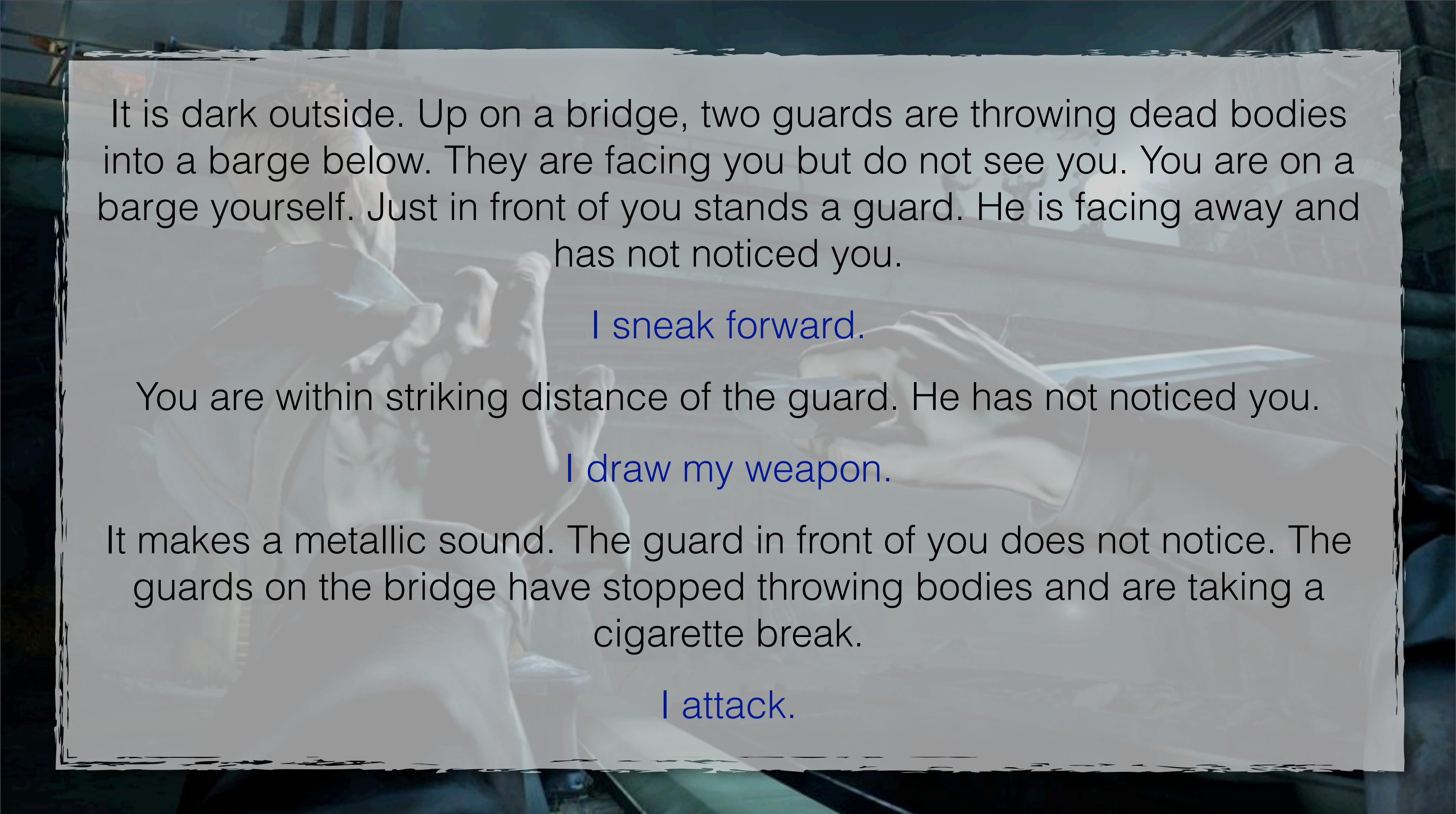
... each interaction with a computer can be framed as a Procedural Dialogue with the machine. That's all still true – we were just skimming on it a bit. There's actually more going on – a duality that we haven't explicitly talked about yet: ...



Every interaction with the computer isn't just a conversation with the machine. It is also a dialogue with another person.



Somebody – at some point – created the procedures which govern your interaction with the computer. And that is authorship, but it's a different authorship paradigm from what the Print Culture is used to, because it has a level of indirection: this author didn't hardcode what the computer was actually going to say – he just created the guidelines. He created the model for a Procedural Dialogue.



It is dark outside. Up on a bridge, two guards are throwing dead bodies into a barge below. They are facing you but do not see you. You are on a barge yourself. Just in front of you stands a guard. He is facing away and has not noticed you.

I sneak forward.

You are within striking distance of the guard. He has not noticed you.

I draw my weapon.

It makes a metallic sound. The guard in front of you does not notice. The guards on the bridge have stopped throwing bodies and are taking a cigarette break.

I attack.



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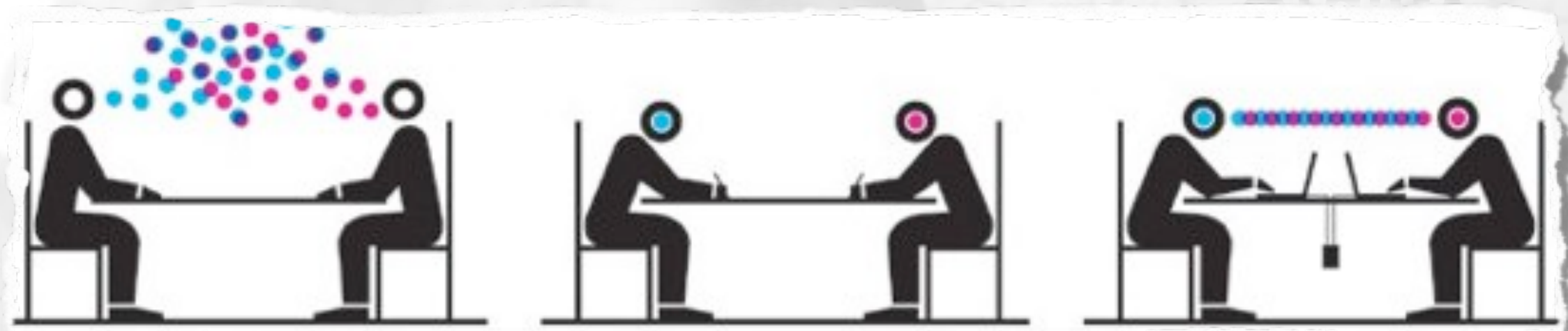
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You're also engaged in a deferred Dialogue with the creators of the game. And they actually express their opinion on what you do and how you're playing the game – albeit indirectly.

Oral Culture

Print Culture

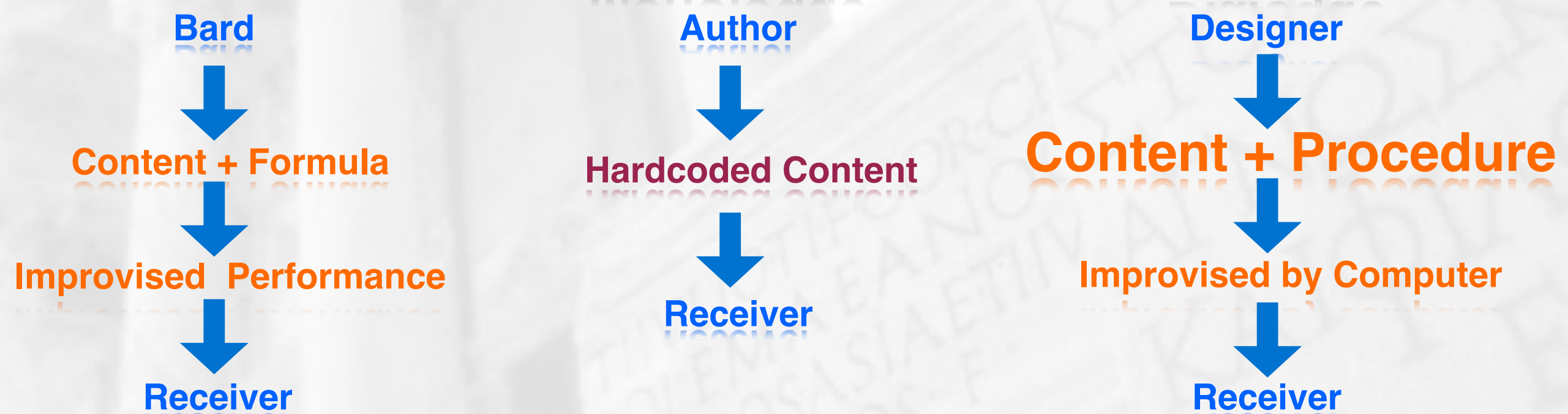
Secondary Orality



Dialogue

Deferred Monologue

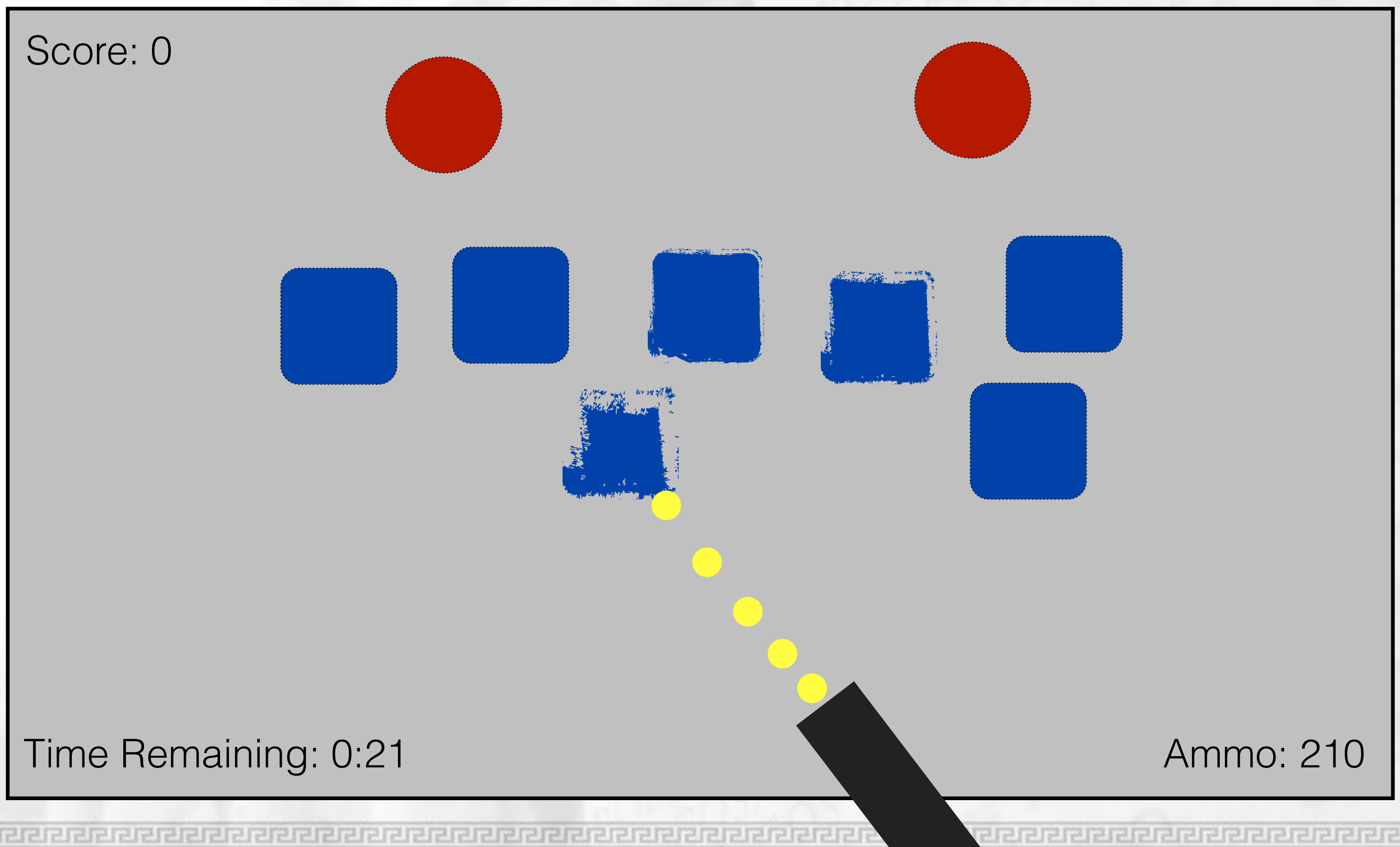
Procedural Dialogue



The way the computer mediates a designer's opinion has interesting parallels to what an oral bard does:

- The designer creates chunks of content, and...
- The designer establishes formula that encodes how this content behaves and relates to other elements of the game.
- The computer then improvises that encoded opinion at runtime.

To give an example of how *both* content and procedure are important parts of this indirect authorship paradigm, let's create a small hypothetical game: ...



In this game, I have to destroy a bunch of square obstacles (which doesn't get me any points) so that I can shoot the actual red targets in the back (which does get me points). The content are simple shapes, and the procedures I have established determine how the player gets points, and many points he gets.

That's an act of authorship. We generally call this "game design", although we rarely think of this as expressing an opinion.

Let's imagine the exact same gameplay scenario, but let's make a couple of small changes. Let's set the game in an airport.



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Let's replace the squares with civilians and the cylinders with security officers, and invite the player to interact.



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This is exactly the same gameplay as before, but the emergent meaning of playing this game is very different!

- The way that we authored the content (what the scoring and non-scoring units look like) changes context and meaning, asserting an opinion.



Game Over?

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- How the procedures of the game govern the player's interactions with these elements (does this trigger a Game Over condition or not?) also expresses the designer's opinion.

Game design is indirect authorship, but with the potential for expressing a clear opinion.

We might say that...



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Computer games use formula (procedure) that is mathematical in nature to express the same theme in different ways, depending on the player, her situation and her mood, creating epic tales equivalent to thousands of lines of poetry, but which are never told the same way twice.



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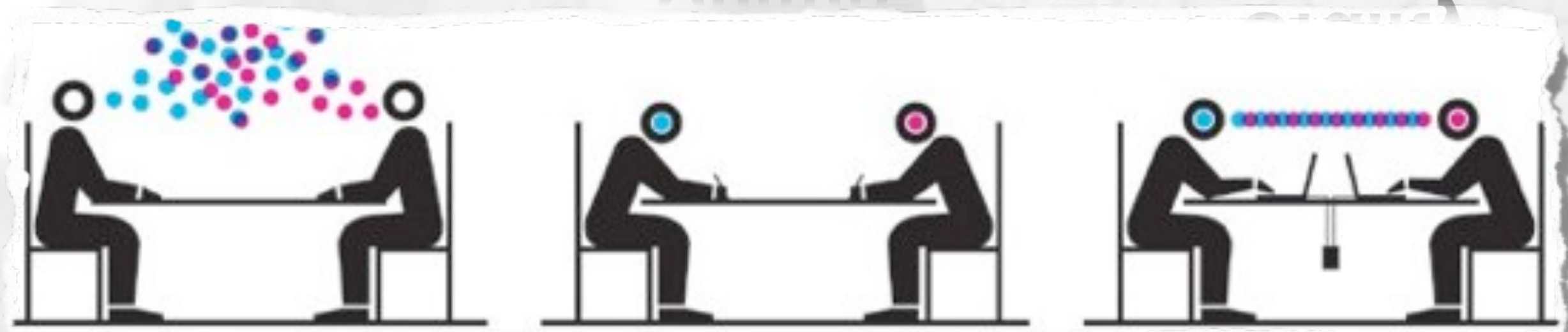
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Based on the procedure that was encoded ahead of time by the designer, games are able to take a well-established topic and improvise on it anew in each performance, creating an experience that is never quite the same.

Oral Culture

Print Culture

Secondary Orality



Dialogue

Deferred Monologue

Procedural Dialogue

Bard

Author

Designer

Content + Formula

Hardcoded Content

Content + Procedure

Improvised Performance

Receiver

Improvised by Computer

Receiver

Receiver

This comparison between what gameplay is and what an ancient oral bard does is quite poignant, as long as you remember one thing:

The computer might be the bard. But it is *you* who creates that bard.



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You create the pieces of content and the formula to improvise epic stories – using the computer as a tool – the mediator – to deliver that content in a deferred way.

And that's the thing that all games have in common: ...



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- Content is homogenized
- Single source and sequential. Monolithic
- Interference is to be avoided
- Authoritative Author
- Sequence As Rationale



At the lowest level, the authorship paradigm for **all** games is squarely in the age of orality. All games have gameplay. All games can use this gameplay to model aspirational fantasies, to reinforce player identity, and to create a customized experience that no other medium can provide.

Gameplay is a unique representation of Secondary Orality, and computer games are the only procedural entertainment in an increasingly procedural world.

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- Interference is to be avoided
- Authoritative Author
- Sequence As Rationale

Oral Culture



- Content is mediated via performance
- Content is mutable. Formula
- Stories are personal
- Aggregative and non-linear. “Mosaic”
- Interference is considered normal
- Shared authorship
- Personal goal structuring



Print Culture



- Content is mediated impersonally, via an artifact
- Content is fixed & hard-coded
- Content is homogenized
- Single source and sequential. Monolithic
- Interference is to be avoided
- Authoritative Author
- Sequence As Rationale

We can apply the procedural nature of the computer to the story structure of the game, and people might argue that this non-linearity and aggregation aligns more closely with the aesthetics of this new age.

Oral Culture



- Content is mediated via performance
- Content is mutable. Formula
- Stories are personal
- Aggregative and non-linear. “Mosaic”
- Interference is considered normal
- Shared authorship
- Personal goal structuring



Print Culture

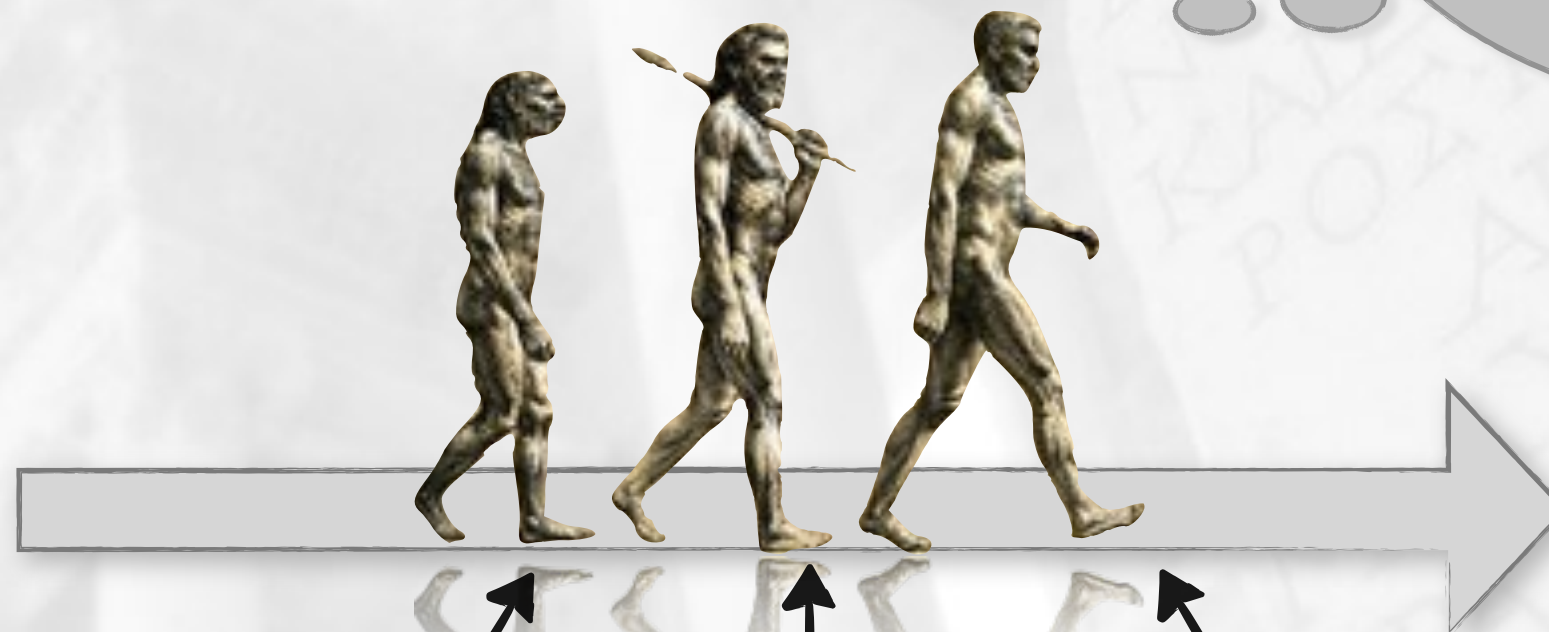


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- Authoritative Author
- Sequence As Rationale

But that's a personal opinion: we're still at the beginning of this age, and I can argue that strongly structured games are able to focus the experience and keep the player engaged while still allowing for a personal player story.

And it's not like print itself (and by that I mean chunks of information as you might find on a webpage, not a physical newspaper) is going away – let's not marginalize the role of embedded, pre-authored content in Secondary Orality!

**Oral
Culture**



Logic
Analytics **Categories**
Structure

**Print
Culture**



Monday, April 22, 13

The invention of writing got us where we are today: Writing enables the recording of history, it creates a mind that thinks in abstract terms – and when one person is able to assert something, and that assertion can be remembered, tested, verified, disproven and improved across time and space (and by multiple people), we get the scientific principle, which eventually gets us to the point where I can now use Google Books...

BABSON SCORES UTILITIES FOR FLOUTING LAW

Failure to Obey Plays Into Hands of Radicals, Economist Says

By *Special Bureau Correspondent*
WASHINGTON, Dec. 4.—Public utility holding companies are playing into the hands of Communists, Socialists and Fascists by failing to register with the Securities Exchange Commission, they have been warned by Roger W. Babson, economist and himself a director and large stockholder in such a company.

Mr. Babson sent a letter to all utility officials shortly before the registration deadline, it was learned today.

In it he said he hoped the holding company act would be amended by Congress or declared unconstitutional, but strongly urged that companies obey the law as written.

"Proof of Truth?"
"In this time of strife to us into lawlessness would do more to divide and damage the utilities than any attack made by hostile critics," he wrote. "It would be better to prove that some of the charges made against this industry are untrue."

"Compliance of the moral question involved in registration, we public utility directors would be placing directly into the hands of Communists, Socialists and Fascists by flouting the law at this critical time. How can we expect rational groups to abide by democratic principles if we ourselves are in duty the law whenever it suits our convenience?"

These Boys' Club
"Whereas we all cannot adhere every instance of this act to some other instance of the so-called New Deal legislation, we do not wish heavy income taxes, the law of estate taxes and various other administrative policies. Nevertheless we place duty as citizens of a democracy to obey the law."

"All of us are better off than if we lived in any other country on the face of the globe."

VOLPE SUSPECT GOES ON TRIAL

Italian Court Tries 'Big Mike' Spinelli, Accused of Triple Killing Here

By *The United Press*
BALZANO, Italy, Dec. 4.—Three and a half years after the slayings and 3000 miles from the murder scene, Giuseppe "Big Mike" Spinelli finally went on trial here today for the slayings.

Old Newsboys Rally To Raise Funds For Crippled Children



In a whirlwind drive to benefit crippled children, old newsboys from all walks of life will be back at their favorite street corners Monday with a special edition of The Press. Royce Charles Beckman will become a novelty of Mr. Oliver for a day, and will sell on the news street corner where he sold "Pops" 10 years ago. Elmer Hunsbury, president of Hunsbury Brothers, dealers in radios and electric refrigerators, also will be a "newsboy." Other new volunteers include Walter Smith, deputy sheriff; Bert Munhall, at lower left of picture, in his favorite machine which he won as trainer at Carnegie Tech; Harry Hatcher, director of the Boy Department, Irons Kaufmann department; J. Edgar Kahn, assistant director of the Kaufmann department; William Fisher, president of the Fourth Avenue Company; Thomas E. Scanlon, president; Myer Goldenson, Goldenson Furniture Company; and R. C. Cashman, of the Lord & Ladies Commission.

Auctioneer to Sing Swan Song of Old Natatorium

Old Pittsburgh Natatorium on Duquesne Way today approached its end, as working crews prepared to dismantle the structure. The building which was erected by the late Henry Phipps at the turn of the century. Today the value of the structure is being sold by Mr. Phipps at the Pittsburgh Public Auction.

'MA' SUNDAY DENIES ESTATE WAS BIGGER

Explains Billy Gave Large Sum to War Work and Charity
By *The United Press*
CHICAGO, Dec. 4.—Mrs. Helen May Sunday today characterized as "preposterous" stories of the estate claimed by her ex-husband, the late William A. Sunday. Sunday, after his wife was found in suicide, was the owner of the estate.

Class Will Study On Skis—If It Snows

A class in biology at the Pennsylvania College for Women is hoping for snow, and more snow by Saturday afternoon, Dec. 14. Then they will travel through the fields on skis and sometimes passing their studies of winter plant and animal life. This will be the first of a series of field trips. Dr. Anna B. ...

SCHOOL HEADS WILL BE HEARD

Y. M. & W. H. A. Holds Silver Anniversary Education Session Tonight

Representatives of the private education institutions of Western Pennsylvania will speak at Young Men's and Women's Association tonight.

Among those who have been invited to speak are Dr. John G. ...

Dr. Charles ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

REAL ESTATE BOARD SELECTS GOVERNORS

They Are Named for Three-Year Terms, One for One Year

Members of the Real Estate Board yesterday at a meeting in the Wilson Press Hotel. They are George A. Brown, R. O. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

Dr. ...

PROFESSOR KILLED IN WEIRD SHOOTING

Edward M. Stod at No. 1111 in Exchange Gun Firm Office

By *The United Press*
LOS ANGELES, Dec. 4.—Milman Parry, 35-year-old Harvard University professor, was killed last night in a weird and apparently accidental shooting 10 minutes after he arrived here from Cambridge, Mass.

The shooting occurred, according to the story Parry's wife, Marion, told police, as he was opening a traveling bag. She said the gun was misplaced in reaching and discharging, sending a 38-caliber slug through his chest.

Mrs. Parry said her husband had given him a revolver about two weeks after their arrival on a visit to his mother's home. An instant later she heard the fatal shot.

Natural Gold Shockproof Monarch



A real low price for a watch of such reliability and precision. The attractive 25-K rolled gold case is designed in keeping with the modern style. Link band included. Ask for No. 6.

No Payments 'til February
At All 3 Stores Tomorrow and Friday
2 Diamond Baguette



25c Down—50c Weekly
Dainty model Baguette. Set with two fine quality matched diamonds. Sapphire, onyx and sapphire movement. Tubular bracelet included. Ask for No. 11.

Mail orders promptly filled on our regular easy credit terms. Write for our new, large Free catalog.

OPEN EVERY EVENING 'TIL 11:45

KAPPELS
109-107 SIXTH STREET
EAST LIBERTY STORE NORTH HILLS STORE
404 Federal Square

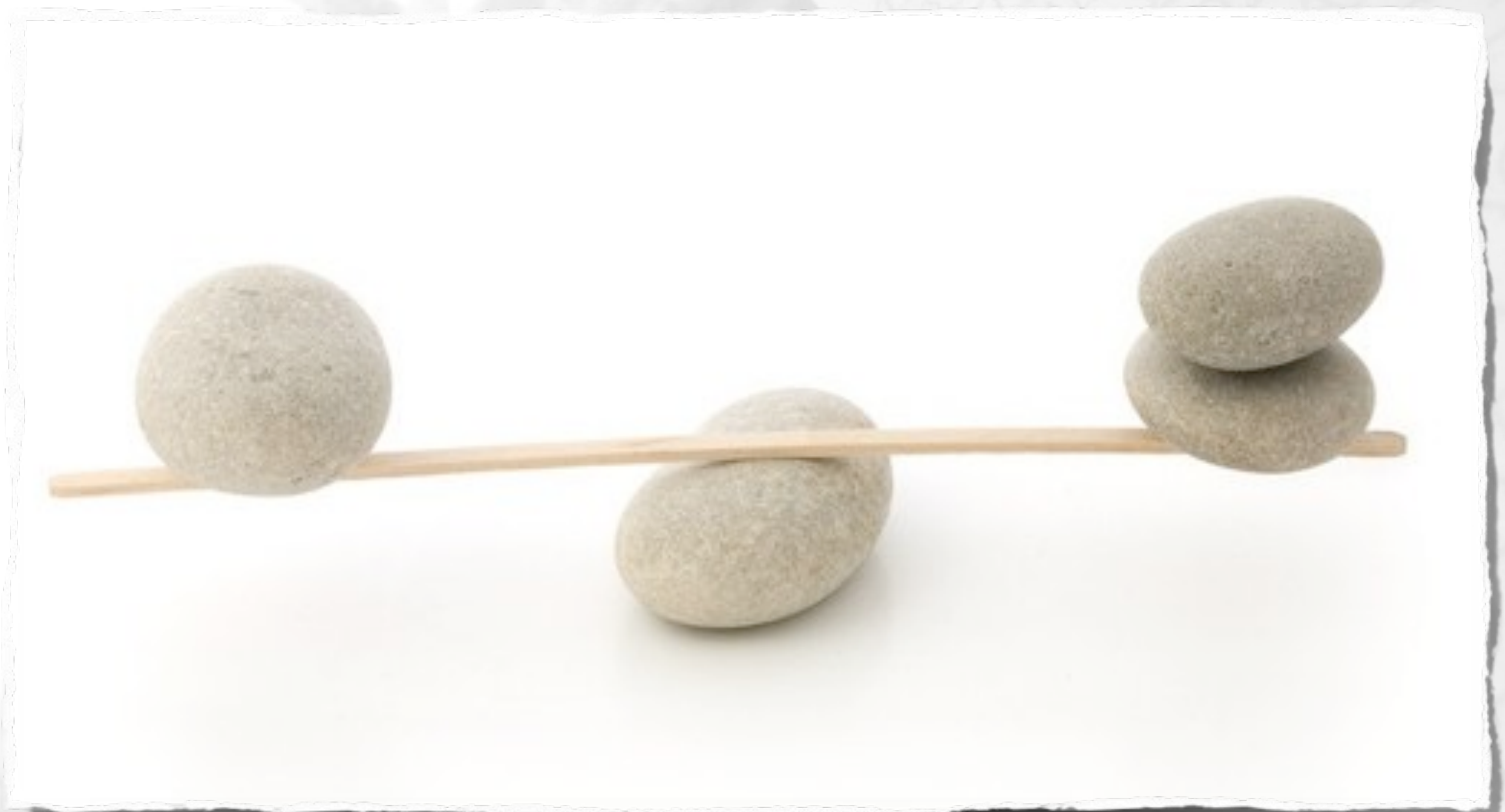


THE MAKING
OF
HOMERIC VERSE

THE COLLECTED PAPERS
OF
MILMAN PARRY

Edited by Adam Parry

...so that his son Adam Parry could publish his notes after the fact.



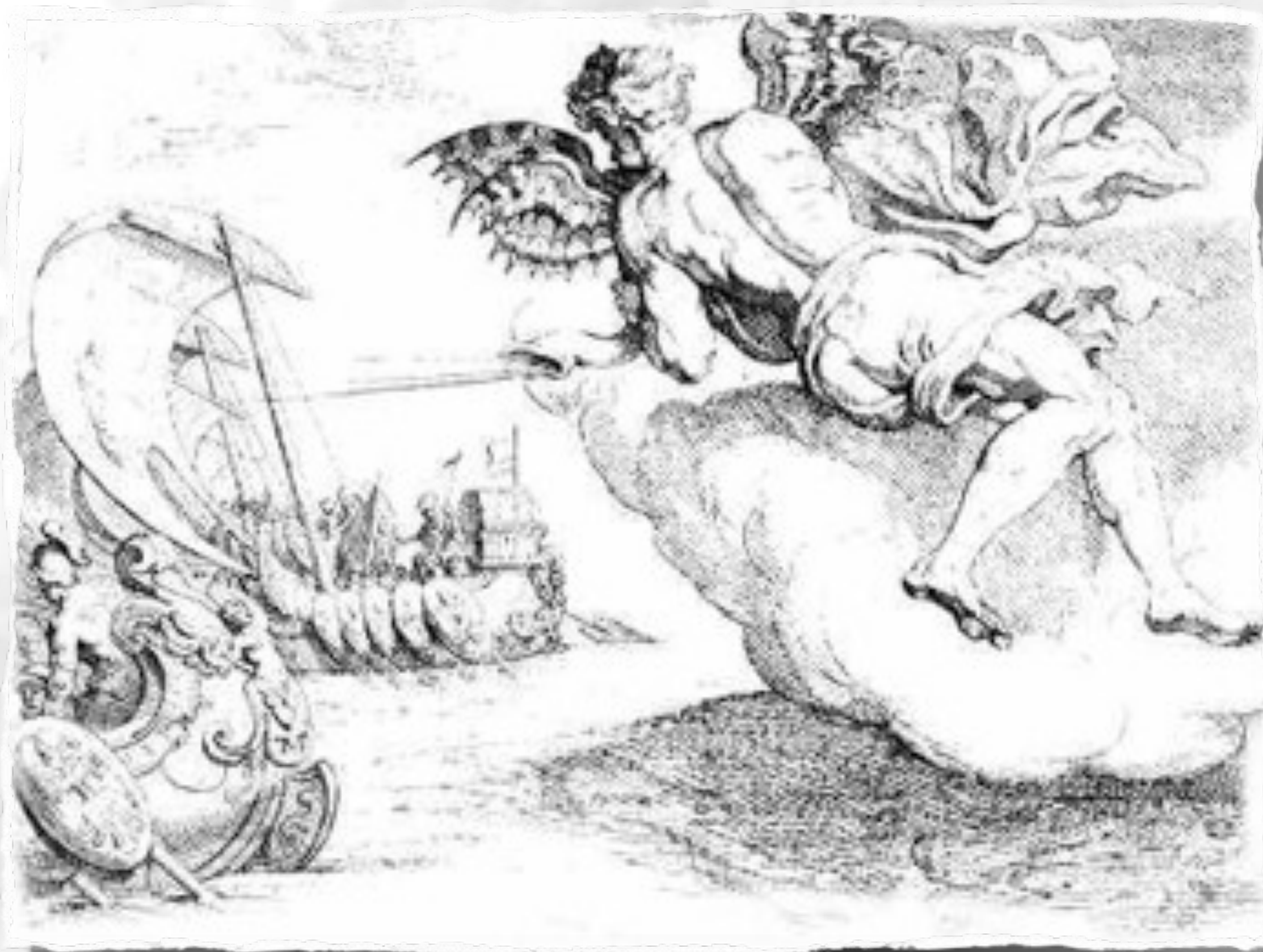
Sequence As Rationale is not going away – it’s useful. Neither are the old authorship paradigms going away – they’re useful, as well. The fact that you have been reading my long stream of consciousness just now – and hopefully enjoyed it – is proof of that.

The question for games is how to balance between embedded and emergent meaning, and how much of the computer’s medium specificity to apply to the structure of the game.

As I said, that’s an impossible question to answer. But maybe history can help us remember something: there will be some sort of equilibrium.



There was a time when people found it inconceivable that epic poetry like the *Odyssey* could have been created through improvisation. Milman Parry came along and changed our fundamental assumptions, showing us that content + formula could indeed create coherent stories which have meaning.



But then there was a course correction that veered too far the opposite way. For a while, scholars believed that *everything* in the Odyssey was create via formula – up to 90%! Which, as it turns out, makes everything formula and nothing premeditated.

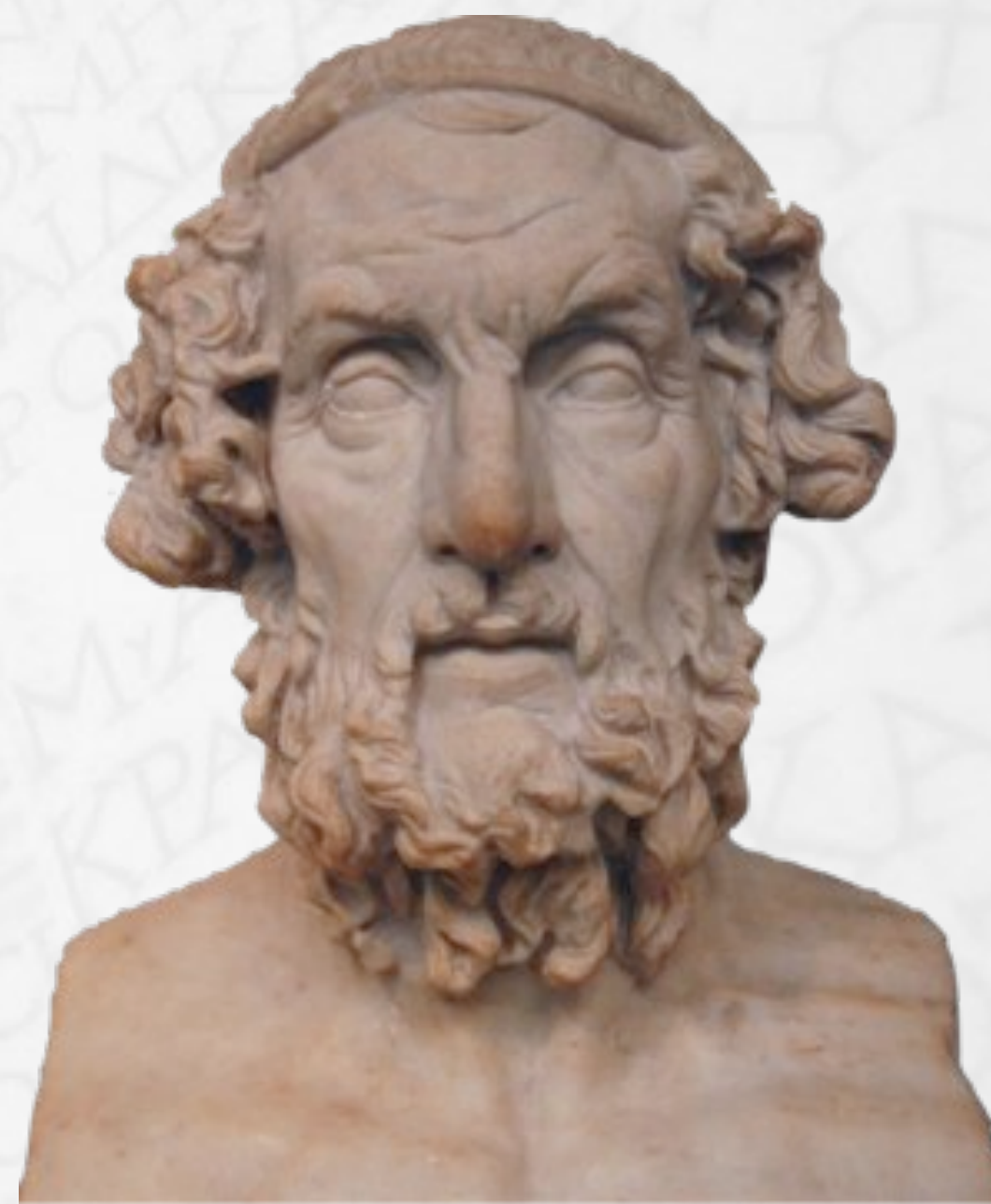


These days, the established opinion is that every book of Homer's epics does have deep roots in oral poetry, and that's how each episode was performed for a long time. But at some point towards the end, writing must have been used to do more than just transcribe the epic – literacy was likely used to structure the individual parts into the complete story arc that we know today. [19]

And there is indeed a qualitative difference between the tales that Milman Parry heard in purely oral Yugoslavia...



≠



...and the epic stories of Homer, which have survived almost 3000 years.



The balance between improvisation and memorized content in the *Odyssey* is thought to be somewhere around 50/50. Large parts of the tales were performed through formula, but there are also chunks of content that must have become so refined over the years that the bard could fully memorize them, and interject them in places where he needed time to think up the next part of the improvisation.



I like to think of this as history's earliest streaming corridors.

Computer Game

Content is mediated procedurally.

“The designer structures experience by integrating gameplay and story points into the game’s larger framework, using the procedural nature of the medium.”

- Content is mutable
- Stories are personal
- Aggregative and non-linear.
“Mosaic”
- Interference is considered normal
- Abdication of authorship
- Personal goal structuring

Procedural Dialogue

- Content is fixed
- Stories are homogenized
- Single source and sequential.
Monolithic.
- Interference is to be avoided
- Authoritative author
- Sequence As Rationale

Monologue

50/50 sounds pretty good to me. It expresses the combinatorial nature of this age, and how we now find meaning.

So my general advice would be to use the tools of the print culture to create striking story structures – experiences that connect with people easily, that wow them. It’s okay if 50% of the meaning is embedded in the game.

But we should then remember that the other 50% should be emergent meaning, and create deep, personal gameplay that feels like it’s part of the overall conversation.

Because if you feel that **only** setpieces and QTEs can create memorable moments in your game – if that’s your only attractor – you need to take a step back and adjust your formula! Your gameplay isn’t creating a memorable enough experience, you’re not using the medium specificity of the computer in your authorship, and you’re relying on artifacts of the print culture to make your game entertaining. That’s wrong!



Without speculating on what the future of gaming might look like, let me just point out one thing:

Sony has announced the Playstation 4, which, beyond some very impressive hardware specs...



...also has a Share button right on the controller.

Cutscenes of the future are going to be awesome! Believe me, I know. But even I've been telling my teams that after one person has clicked on the Share button, nobody will share your cutscenes and QTEs anymore. They don't have to!

People will share their personal player stories – stories that are improvised, by the game, via formula, at runtime, in ways that are impossible in all other media. And that's where the new authorship paradigm is so powerful. Because all those shared, personal and unique moments will have happened in your game, enabled by the procedural dialogue that you have created.

So.. let's make sure that players will have something to share, which will give us – and the rest of the world – something to talk about.



Because that's what this new age is really all about.



Thank You.

@mworth | matthias@worth.com

<http://www.worth.com>

Annotations

[1] [http://news.google.com/newspapers?](http://news.google.com/newspapers?nid=1144&dat=19351204&id=uk0bAAAAIBAJ&sjid=H0wEAAAAIBAJ&pg=6629,194959)

[nid=1144&dat=19351204&id=uk0bAAAAIBAJ&sjid=H0wEAAAAIBAJ&pg=6629,194959](http://news.google.com/newspapers?nid=1144&dat=19351204&id=uk0bAAAAIBAJ&sjid=H0wEAAAAIBAJ&pg=6629,194959)

[2] Images from the “Milman Parry Collection”: http://chs119.chs.harvard.edu/mpc/gallery/lord_album.html

[3] Although not explicitly mentioned, all of these findings were published by Albert Lord, who was Parry’s assistant, in the seminal book “Singer of the Tales”. The pages pictured are from Lord’s book.

[4] One example of the impact of transcriptions of oral poems is ‘La Chanson de Roland’, the accounts of the French national hero. A good (if unexpected) account of the controversy can be found in ‘Off the Road: A Modern-Day Walk Down the Pilgrim’s Route into Spain’: “[T]here are those (mainly French) who insist that the Chanson de Roland is the first great work. They say that the poem is an original work of art written by a single artist name Turolde.” Yet Albert Lord’s findings exposed Turolde as a scribe of one specific version of the poem, which explains why accounts of Roland’s legendary battle at Roncesvalles differ wildly between different countries: “The original bards who sang the poem along the road and throughout Europe altered it to suit each particular audience, and happily added names, changed events, or altered outcomes. In France the minstrels emphasized French honor. Elsewhere, his Christianity was paramount. In Spain, the treachery of Arabs was key to their propaganda. In the Basque version [...] it is a story that confirms their legendary ethnic ruggedness. The story of Roland is a collective effort, formed by slow accretion of plot and details.” – Off the Road: A Modern-Day Walk Down the Pilgrim’s Route into Spain, Jack Hitt. (Kindle Edition, Loc 923)

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[5] “A thunder clap in human history” – From The Alphabetization of Homer, Communication Arts in the Ancient World (requoted from The Information, James Gleick, First Vintage Books Edition, p.34)

[6] “It constituted an intrusion into culture, with results that proved irreversible. It laid the basis for the destruction of the oral way of life and the oral modes of thought.” – From The Information, p.35. James Gleick (summarizing parts of Eric Havelock’s Preface to Plato).

[7] For far more detail on how and why writing created increased abstraction in thinking, see http://journal.oraltradition.org/files/articles/1i/6_havelock.pdf.

[8] Walter Ong has a poignant example of the progression from situational thinking (stringing events together using “and”) to abstract thinking in Orality and Literacy, comparing the translations (from Hebrew) between the Douay version of the bible (1610, in a culture with lots of oral residue) and the New American Bible (1970): “In the beginning God created heaven and earth. And the earth was void and empty, and darkness was upon the face of the deep; and the spirit of God moved over the waters. [...]” vs “In the beginning, when God created the heavens and the earth, the earth was a formless wasteland, and darkness covered the abyss, while a mighty wind swept over the waters. [...]” – Orality and Literacy, Kindle Edition, Loc 776.

[9] Walter Ong describes these experiments extensively in Orality and Literacy (Loc 1016, Kindle Edition). Also check <http://en.wikipedia.org/wiki/Orality>, Section 10: “Situational rather than abstract”

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[10] “But the film audience, like the book reader, accepts mere sequence as rational. Whatever the camera turns to, we accept.” – Understanding Media, Marshall McLuhan, First MIT Press Edition, p.286.

[11] To get a good idea of how fundamentally the authorship paradigm has changed, we can look at William Shakespeare, whose plays were products of the old oral age, and which were only published without his involvement, after his death. This talk at MIT has more information: <http://video.mit.edu/watch/the-gutenberg-parenthesis-oral-tradition-and-digital-technologies-9566/>

[12] “A literate audience...” – Understanding Media, Marshall McLuhan, First MIT Press Edition, p.285.

[13] A comprehensive review of how continuity cinema developed is David Bordwell’s lecture “How Motion Pictures Became the Movies” – <http://vimeo.com/57245550>

[14] Image from “The Only Son”: [http://en.wikipedia.org/wiki/The_Only_Son_\(1936_film\)](http://en.wikipedia.org/wiki/The_Only_Son_(1936_film)), <http://semtexfollies.blogspot.com/2011/04/ozu-gently-confounds-kuleshov-effect.html>

[15] Lars Ole Sauerberg and Thomas Pettitt have called the age of print the “Gutenberg Parenthesis”. For much more detail on how print has changed culture, and how we are returning to the values of orality, I recommend watching this symposium at MIT: <http://video.mit.edu/watch/the-gutenberg-parenthesis-oral-tradition-and-digital-technologies-9566/>

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- [16] There's actual overlap between linguistics and theoretical computer science. Noam Chomsky, the Chomsky Hierarchy and the way in which theoretical Computer Science talks about computation problems ("grammars", "alphabets" etc.) old hold answers. For an introduction on the subject, see <http://translation-blog.trustedtranslations.com/grammars-where-linguistics-meets-computer-science-2012-04-25.html>
- [17] Using Sequence As Rationale to create player motivation is generally problematic. For a thorough examination of the subject, please refer to <http://www.worch.com/2011/03/05/identity-bubble-download/>
- [18] For more information on agency & Player Stories vs Designer Stories, see <http://www.worch.com/2012/03/11/player-stories-and-designer-stories-download/>
- [19] For a comprehensive summary of current thinking on how Homer's tales were composed, see the Translator's Preface of The Iliad, translated by Robert Fagles (Kindle edition, Loc 121).