

Cinema: A Deadly Invention?

The SF Genre and the Cinematic Imagination of Disaster,
1945-1960

				-----1895-----	Birth of Cinema
1900s	Attractions				
				-----1902-----	<i>A Trip to the Moon</i>
1910s	Narrative 1: Continuity Editing				
1920s	Narrative 2: Classical Film Forms / Montage Theories				
				-----1917-----	Tanizaki 'Pure Film'
				-----1924-----	<i>Aelita</i>
				-----1924-----	Epstein 'Photogénie'
1930s	Sound	↔	Radio & Telecommunications		
				-----1932-----	<i>FP1 Doesn't Answer</i>
1940s	Color & Plasticity				
				-----1938-----	Imamura, 'Cartoon Film Theory'
				-----1940-----	Eisenstein, 'Notes on Disney'
				-----1941-----	<i>Princess Iron Fan</i>
1950s	Expanded Film Form & Genre	↔	Television		
				-----1958-----	<i>Invention for Destruction</i>
				-----1965-----	Sontag 'Imagination of Disaster'

INVENTION FOR DESTRUCTION

The massive destruction due to worldwide war resulted in a widespread loss of faith in three things that had previously oriented political and social life: (1) nationalism, (2) science and technology, and (3) mass media.

Because radio and cinema had been swept up into militarist and nationalist causes, mass-targeted media forms could no longer be taken as innocent entertainments or simple educational features.

It is in such a context that Karel Zeman made his most famous film, *Vynález zkázy*, which literally means *Deadly Weapon*. It was distributed globally under the title *The Fabulous World of Jules Verne*, but the film has recently been released with the title: *Invention for Destruction*.

INVENTION FOR DESTRUCTION: NATIONALISM

Invention for Destruction seems intent on getting out of nationalism, or at least eliminating patriotic sentiment.

The film is based on Jules Verne's highly patriotic novel, *Face au drapeau* (Facing the Flag, 1896). But it eliminates Verne's patriotic references and plot twists (Tibbetts, 152).

In 1938, Nazi Germany followed on the *Anschluss* of Austria and annexed northern and western Czechoslovakia (Sudentenland), which weakened Czechoslovakia, and all of it became German occupied.

In 1948, the Soviet Union took over Czechoslovakia.

What do you make of the film's treatment of nationalism?

INVENTION FOR DESTRUCTION: SCIENCE AND TECHNOLOGY

The story hinges on a mad scientist who invents a weapon of mass destruction, and so the film is evidently offering some sort of commentary on the uses of science and technology.

But what kind of commentary does it offer?

Note, too, that cinema itself is associated with science and technology. The concerted efforts to produce and promote cinema as a highly technologized art in the 1930s and 1940s made cinema, especially certain kinds of cinema, feel like part of the techno-scientific problem rather than a solution to it.

INVENTION FOR DESTRUCTION: MASS MEDIA

The film was made in 1958, midway between the Soviet takeover of Czechoslovakia (1948) and its political liberalization during “Prague Spring” of 1968.

The Prague Spring reforms consisted of Alexander Dubček’s attempts in 1968 to grant additional rights to the citizens of Czechoslovakia. The reforms loosened restrictions on media, speech, and travel. They also allowed for greater democratization of political processes and partial decentralization of the economy.

After negotiations failed, the Soviets sent half a million Warsaw Pact troops and tanks to occupy the country.

While the Soviet military had predicted that it would take four days to subdue the country the resistance held out for eight months, and was only circumvented by diplomatic stratagems.

In other words, Zemen made *Invention for Destruction* at a time when German mass media control had been replaced by Soviet mass media control in Czechoslovakia, and yet Czechs clearly did not embrace or accept such control.

The challenge for Zemen, then, was how to make popular films that did not side with the legacy of mass-oriented national cinema and national animation, which relied so heavily on classical film form.

How does Zemen’s film work with and against classical film and animation form?

INVENTION FOR DESTRUCTION: FILM FORM

Zemen is often called the “Czech Méliès” because he sticks with the techniques associated with early cinema, especially the “trick films” of Méliès.

Zemen also based many of his films on the “science novels” of Jules Verne, many of which were written during the period of early cinema. Zemen was surely aware that *Face au drapeau*, the novel on which *Invention for Destruction* is based, was written in 1896, a year after the so-called birth of cinema.

In brief, Zemen turns both to ‘early cinema’ and to ‘early science fiction.’

Tibbets puts it this way: “Utilizing the motion picture animation techniques being developed in Verne’s day, most of which were also available to Méliès—magic-lantern dissolves, stop-motion, pixilation, etc.—he translates the technological dreams of Verne’s prose into their visual correlatives.”

In sum, he returns to the earliest days of cinema and science fiction to seek alternative paths for filmmaking.

What kinds of audiovisual paths does he find?

Karel Zemen, *Vynález zkázy* (Deadly Invention, 1958; Czech)

SF GENRE

SF GENRE 1: SOBCHAK

(WORKSHEET 1)

Discussions of film genres have often focused on iconic elements, that is, elements that instantly let you know what genre you are watching.

Railways, guns, white and black hats, frontier towns, and other iconic elements place us in the Western.

Science fiction films often feature spaceships, aliens, robots, and high-tech communications and information technology.

Sobchak argues that, in the Western, iconic elements have a stable relation to the narrative.

In contrast, the iconic elements of science film fictions are 'plastic,' changing meaning and narrative function from film to film.

The implication is that we watch science film fictions in different manner from Western films and other 'narrative genres.'

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SF GENRE 2: SUVIN

(WORKSHEET 2)

Darko Suvin looks at science fiction (literature) in terms of cognitive estrangement.

He writes, “The cognitive nucleus of the plot co-determines the fictional estrangement in SF” (381).

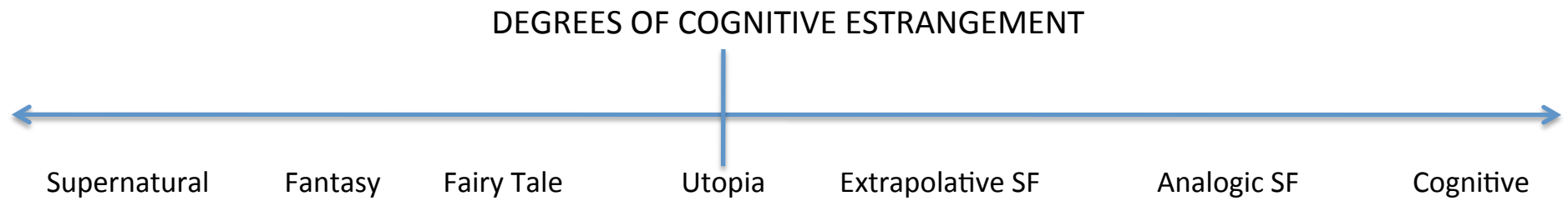
Suvin builds on a narratological distinction between ‘what is told’ and ‘how it is told.’

The ‘what’ is the ‘science’ side of SF. It has a cognitive nucleus, with a plot or story whose actions and events hinge on cognitively valid scientific paradigms, with an emphasis on cause and effect. *Cognitive*.

The ‘how’ is the ‘fiction’ side of SF. It is matter of discursive functions, aesthetic tonalities, fictionalization — how scientific paradigms are perceived and imagined. *Estrangement*.

SF GENRE 2: SUVIN

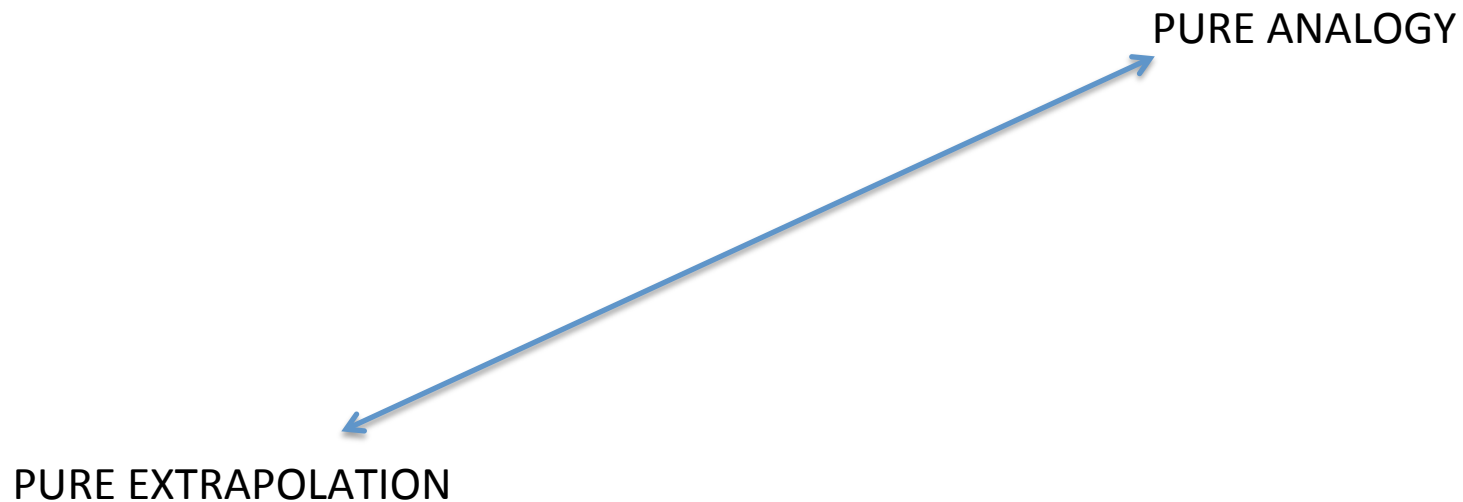
Suvin then maps out a wide variety of texts in accordance with degrees of cognitive estrangement.



SF GENRE 2: SUVIN

In fact, because he rules out everything on the 'fantasy side,' Suvin focuses primarily on "extrapolative SF" and "analogic SF."

He writes, "One should think of a continuum at whose extremes there is pure extrapolation and analogy, and of two fields grouped around the poles and shading into each other on a wide front in the middle."



SF GENRE 2: SUVIN

EXTRAPOLATION

“But even the *roman scientifique* such as Verne's *From the Earth to the Moon*—or the surface level of Wells' *Invisible Man*—though a legitimate SF form, is a lower stage in its development. It is very popular with audiences just approaching SF, such as the juvenile, because it introduces into the old empirical context only one easily digestible new technological variable (Moon missile, or rays which lower the refractive index of organic matter). The euphoria provoked by this approach is real but limited, better suited to the short story and a new audience. It evaporates much quicker as the positivistic natural science loses prestige in the humanistic sphere after the World Wars...”

“The earlier dominant model of SF from the 19th century on (though not necessarily in preceding epochs) was one which started from certain cognitive hypotheses and ideas incarnated in the fictional framework and nucleus of the fable. This extrapolative model (...) is based on direct, temporal extrapolation and centered on sociological (i.e., utopian and anti-utopian) modeling. This is where the great majority of the “new maps of hell” belongs for which postwar SF is justly famous...”

SF GENRE 2: SUVIN

ANALOGY

“The highest form of analogic modeling would be the analogy to a mathematical model, such as the fairly primary one explicated in Abbott's *Flatland*, as well as the ontological analogies found in a compressed overview form in some stories by Borges and the Polish writer Lem, and in a somewhat more humane narration with a suffering protagonist in some stories by Kafka (*The Metamorphosis* or *In the Penal Colony*) and novels by Lem (*Solaris*).”

“...this semantic field is a modern variant of the conte philosophique of the 18th century.”

When we turn to cinema, Suvin's distinctions demand reconsideration. This is what David Fortin does in his account of architecture and science fiction films. In particular, he questions Suvin's elimination of myth, fantasy, fairy tales, and the supernatural.

As he notes, for Suvin argues, "the fantasy, including ghost, horror, Gothic and 'the weird,' is even less compatible with SF than the fairy tale." (17)

"It is clear that despite the varying severities of their approaches regarding fantasy and myth, Suvin, Lem, Dick, Wendland, and Freedman all agree that critical difference between SF and related 'estranged fiction' is in its plausibility and recognized relationship to the empirical world of the reader. Suvin emphasizes 'scientific rigor,' Lem 'real methods,' and Wendland, an 'apparently scientific frame.'" (19)

"However, as SF moved from the printing press into the cinema, the visual imagery on-screen replaced much of what could only be described previously through text. Thus the *mise-en-scène* of SF film would emerge as an equally critical contributor to the plausibility of the narrative." (19)

Thus, Fortin sides with Vivian Sobchak's definition of SF, which "preserves the mysticism and wonder so integral to the genre." (20-21)

SF GENRE 3: FORTIN

Fortin then tries to build both on Suvin's emphasis on scientific cognition and on other writers' emphasis on wonder and magic and mysticism, the domain of fantasy.

He build on Suvin, writing, "...one of the critical functions of SF is to distinguish between the projected or estranged world and that of the viewer ['zero world' or 'home']."

SF may be considered to be a sort of thought experiment in which some kind of *novum* (novelty or innovation) is introduced into a control group (the zero world or home).

Thus, Fortin argues, 'home is a foundational concept of the genre.' (21)

"Through the various projections of estranged environments, temporally and spatially, one's sense of place, origin, or home is reinforced as that which is not estranged, and thus the sensation of *Fremdheit* in the everyday is reduced." (22)

'SF acts as a method of experimentation by responding to the experience of alienation or *Fremdheit*, projecting technologies and situations that could be possible based on the empirical environment surrounding us, our 'zero world,' our home. (24)

Yet the emphasis on home may have highly conservative implications. And whose home is it?

He asks, "... in an increasingly mobile and multicultural world composed of countless interpretations of home, and thus estrangement, how can a 'zero world' even exist?" (23)

Written years before Suvin, Susan Sontag's account of SF cinema (1950-1965) jibes with Fortin in signaling that SF cinema differs greatly from SF novels because cinema uses *mise-en-scène* to actualize what is described in literature.

She writes, "...compared with science fiction novels, their film counterparts have unique strengths, one of which is the immediate representation of the extraordinary: physical deformity and mutation, missile and rocket combat, toppling skyscrapers." (43-44)

"The movies are, naturally, weak just where the science fiction novels (some of them) are strong—on science. But in place of an intellectual workout, they can supply something the novels can never provide—sensuous elaboration." (44)

In other words, for Sontag, SF cinema appeals more to the senses than to the mind.

In effect, her account agrees with Hansen's emphasis on how cinema produces a 'new sensorium' to challenge the emphasis in Bordwell *et al* on cognitive universals.

Also like Hansen, Sontag dwells on *contradictory tendencies* in SF films.

SF GENRE 4: SONTAG

Sontag's emphasis on contradictions in SF films takes her in a different direction from Fortin.

Fortin focuses on how SF films make our home feel strange, which (he argues) reduces our sense of alienation.

Sontag sees in SF films a destruction of home.

She writes, "Science fiction films are not about science. They are about disaster..."

"The science fiction film... is concerned with the aesthetics of destruction, with the peculiar beauties to be found in wreaking havoc, making a mess. And it is in the imagery of destruction that the core of a good science fiction film lies."

SF GENRE 4: SONTAG

Sontag feels that SF films address the basic contradictions of our everyday experience after the mass destruction of WWII.

For instance:

“...we live under continual threat of two equally fearful, but seemingly opposed, destinies: unremitting banality and inconceivable terror. (...) fantasy... allows most people to cope with these twin specters.”

“Part of the pleasure comes from the sense in which these movies are in complicity with the abhorrent.”

“The lure of such generalized disaster as a fantasy is that it releases one from normal obligations.”

“But in science fiction films, unlike horror films, there is not much horror. Suspense, shocks, surprises are mostly abjured in favor of a steady inexorable plot. Science fiction films invite a dispassionate, aesthetic view of destruction and violence — a technological view.”

“...the scientist is treated both as satanist and savior.”

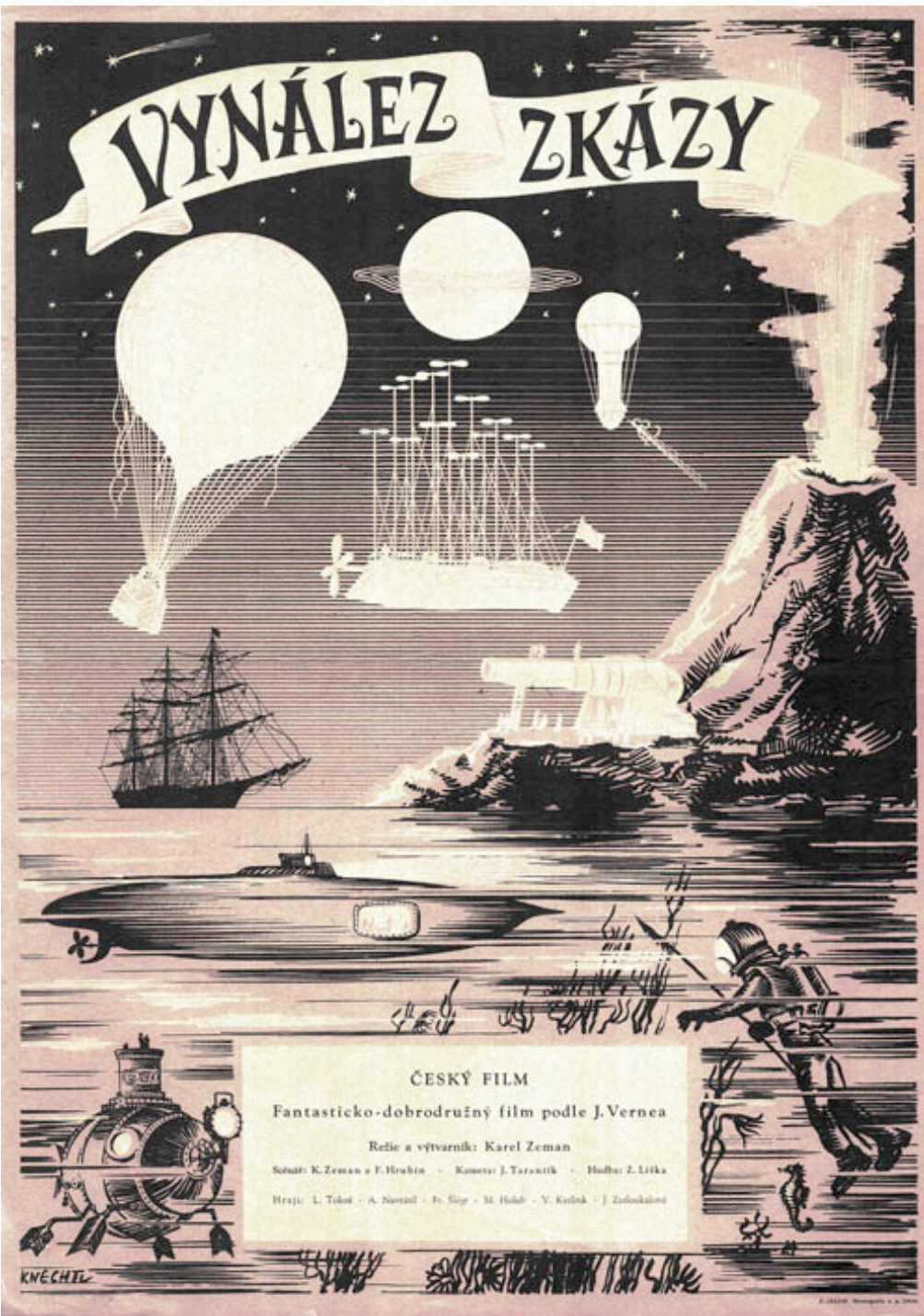
“There is a vast amount of wishful thinking in science fiction films, some of it touching, some of it depressing. Again and again, one detects the hunger for a ‘good war,’ which poses no moral problems, admits of no moral qualifications. (...) Yet at the same time the bellicosity of science fiction films is neatly channeled into the yearning for peace, or for at least peaceful coexistence.”

SF GENRE 4: SONTAG

“But alongside the hopeful fantasy of moral simplification and international unity embodied in the science fiction films, lurk the deepest anxieties about contemporary existence.”

“The attitude of the science fiction films toward depersonalization is mixed. On the one hand, they deplore it as the ultimate horror. On the other hand, certain characteristics of the dehumanized invaders, modulated and disguised... are precisely traits of the savoir-scientists.”

“The interest of the films, aside from their considerable amount of cinematic charm, consists in this intersection between a naively and largely debased commercial art and the most profound dilemmas of the contemporary situation.”



VYNÁLEZ ZKÁZY

ČESKÝ FILM

Fantasticko-dobrodružný film podle J. Vernea

Režie a výtvarník: Karel Zeman

Scenáři: K. Zeman a F. Hrubín - Kamera: J. Tarančík - Hudba: Z. Liška

Hrají: L. Tobiáš - A. Návratil - Fr. Štěpánek - M. Hájek - V. Kylián - J. Zedníčková

KNECHTL

L'INVENTION DIABOLIQUE

**GRAND PRIX
A L'UNANIMITÉ DU JURY
FESTIVAL MONDIAL DU FILM
EXPO BRUXELLES 1958**

*un film de KAREL ZEMAN
d'après les romans de JULES VERNE*


DE DUIVELSE UITVINDING

**THE MOST FABULOUS ADVENTURES ON,
OVER OR UNDER THE EARTH!**

THE FIRST
MOTION PICTURE
PRODUCED IN THE
MAGIC-IMAGE MIRACLE OF

MYSTIMATION
!

JOSEPH E. LEVINE presents
**THE
FABULOUS WORLD
OF JULES VERNE**

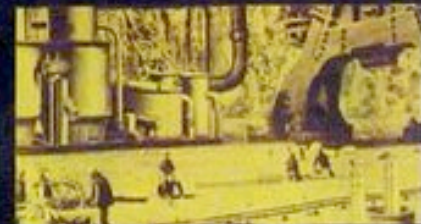
LEO TUCK - ERNE NAWRA - MILO HALL - FRANCIS SHERR - VAN RISSLING - JANE ZALADA Directed by KAREL ZEMAN Distributed by WARNER BROS. 

The thousand and one wonders
of the world to come!

The Wing-Man and the Living-
Submarine! The fantastic
Pedal-Blimps! The Four-footed
Fighting Machines! The under-
water escape from Terror Island!



The start of an expedition that ends up in the
mouth of a blazing volcano!



The astounding city built in the middle of
nowhere by the wizard of man-made energy!



They've seen the impossible... they've lived the
incredible... now they must come back!

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SF GENRE 4b: CSICSERY-RONAY

Istvan Csicsery-Ronay revisits Suvin's notion of cognitive estrangement in the context of animation:

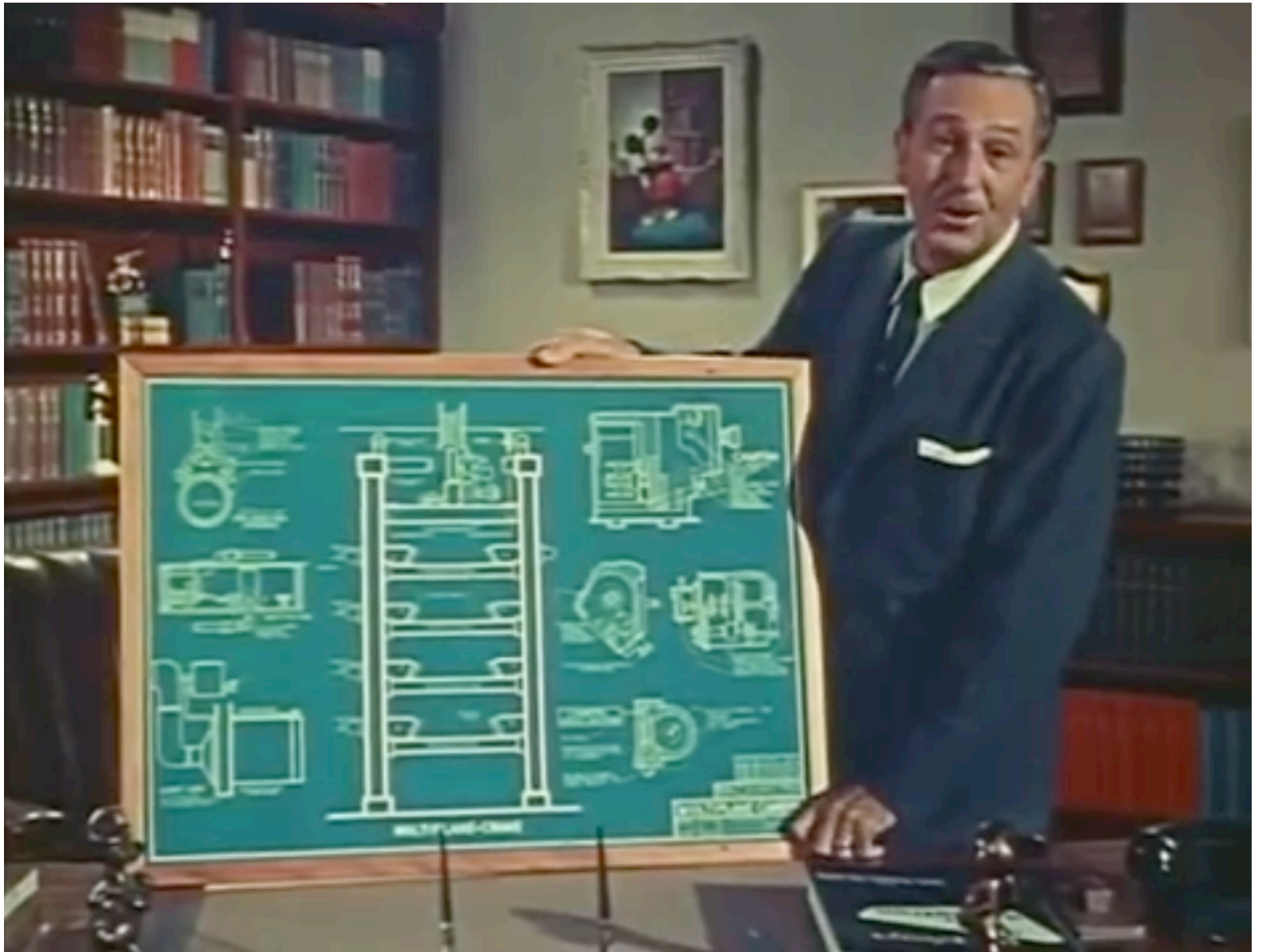
“Cognition implies a correct, healthy apprehension of things—something akin to understanding. Cognitive estrangement then seems to imply that a certain mental operation of dehabituation or defamiliarization is required for us to see the world correctly because pragmatic, empirical reality we have become habituated to is a collective illusion reinforced by ruling class ideology that masks true apprehension. ...the thing that is made strange... is not artifice, but reality, which has been enchanted and naturalized by ideology.” (32)

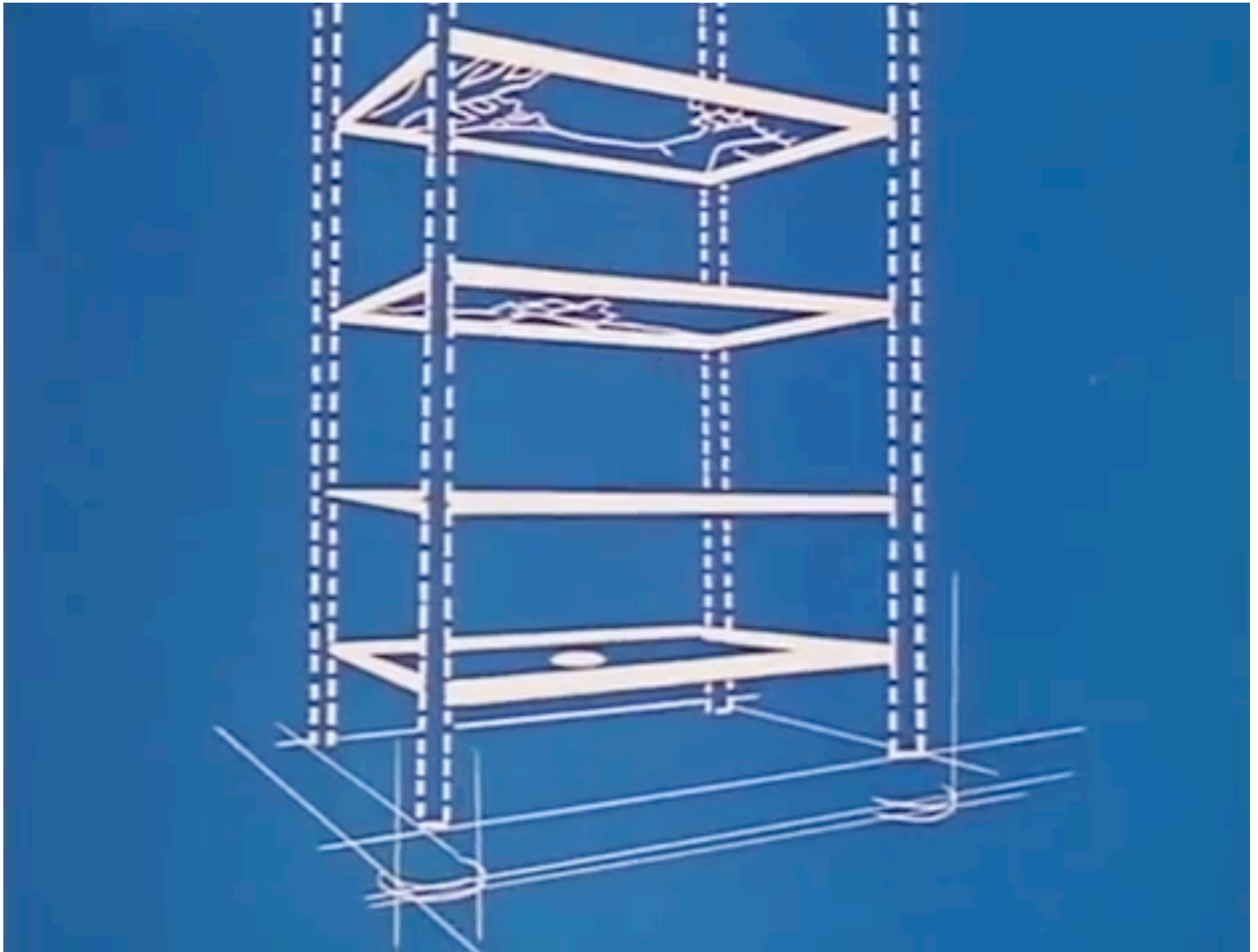
What is estranged in animation?

Csicsery-Ronay calls attention to the ways in which animation is not constrained by what we usually take to be the laws of physics.

Animation, in his opinion, makes way for a “lyrical physics” or imaginative physics that estranges our everyday sense of physics.

I would like to reinforce and expand his point with a concrete example.







Disney's multiplane camera *system* is designed to impose our everyday sense of the laws of physics onto animation, to make animation feel more realistic or naturalistic.

In contrast, what Csicsery-Ronay calls lyrical physics would entail imagining some other kind of physics, which would run counter to or estrange our everyday sense of physics.

In effect, Csicsery-Ronay is drawing a contrast between, on the one hand, classical or Newtonian physics with its laws of gravity and causality (action and reaction), and non-Newtonian physics on the other hand.

He begins to sketch out, tentatively some lineages of animation based on how their way of inventing non-Newtonian 'imaginative' physics.

You can read the details.

In any event, for him, such an estrangement of classical common-sense physics would be the basis for developing SF animation.

SF GENRE 4c: TIBBETS

Due to his interest in steampunk, Tibbetts emphasizes *temporal strangeness* in Zeman's *Invention for Destruction*: "...a 'never-was' converges with a 'might-be.'