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Revisiting Huxley's Dystopic Vision of Future Cinema, *The Feelies*: Immersive Experiences through Contemporary Multisensory Media

Abstract: Aldous Huxley's concern with media, and in particular with cinema, is one of the most conspicuous components of his work as a social critic and as a novelist. Evaluating its potential societal functions, as an artistic genre, a didactic cultural tool for documentaries or as a mass entertainment venue, determined his critical relationship towards the medium. Due to his impaired eyesight, Huxley's attention to perception, intertwined with advancing cinema-technologies, was not restricted to the visual, but extended to all of the human senses, as he demonstrated in the *Feelies* of his novel *Brave New World* (1932). Primarily with regard to mechanomorphic reflexes of human conditioning, this cinematic concept is interpreted by drawing from articles and essays of evolutionary, psychological, political, and aesthetic perspectives that Huxley developed on a parallel writing track in popular print media during the 1920s/30s. In confronting modes of multisensory immersion around 1900 with some of the 20th/21st centuries, this contribution reevaluates Huxley's vision of future cinema.

Keywords: flow (absorption in pleasure); multi-sensory interaction; multisequential prosthetic enhancement; participatory dramatic agency.

Introduction: Mechanomorphism in work and leisure

Throughout the 1920s, Aldous Huxley contributed with essays and articles in popular magazines, journals and newspapers essentially to the public discourse on mass leisure as “an asset and a problem”,¹ in concurring with the competing findings of contemporary social theoreticians who categorized leisure not merely as a “problem” or “challenge”, but rather as a “threat” that triggered “fear”.² Some years prior to

¹ Martin Neumeyer and Esther Neumeyer, *Leisure and Recreation: A Study of Leisure and Recreation in their sociological Aspects* (New York: Barnes, 1936), 12.

² Robert Snape and Helen Pussard, “Theorisations of Leisure in Inter-War Britain,” *Leisure Studies* 32, 1 (2013): 5. For this specific aspect of Huxley's work, see also Peter Miles and Malcom Smith, “Aldous Huxley: The Art of Life and the Threat of Leisure,” in *Cinema, Literature & Society – Elite and Mass Culture in Interwar Britain*, ed. Peter Miles and Malcom Smith (London, New York, Sydney: Croom Helm, 1987), 102–22.

writing his novel *Brave New World*, Huxley projected the present leisure trend into a distant future,³ forecasting a six-hour day by the year 2000:⁴

“Perfected machinery”, say the prophets, “will give us increasing freedom from work, and increasing freedom from work will give increasing happiness.” But leisure also is subject to the law of diminishing returns. Beyond a certain point, more freedom from work produces a diminished return in happiness.⁵

In this mechanized society, mass production and mass leisure were initially characterized by monotony and boredom. Industrialization countered both effects that it had generated with the creation of inexpensive mass entertainment venues: Between 1921 and 1931, the total share of manual work on the labor market was at approximately 70 percent.⁶ These figures found its equivalent in the systematic expansion of the pleasure industries, e.g., the cinema, where the attendances ascended to 903 million by 1934.⁷ Huxley, in referring to “ready-made distractions”,⁸ repeatedly invoked the metaphor of the Ford-T-assembly-line for an intrusive American media-practice that undermined British culture:

Mass production [...] might be good if the spiritual wares retailed by our mass-producers of the mind were of high quality. [...] As things are at present, mass-produced material objects are of much better quality than mass-produced ideas and mass-produced art. [...]. The rotary press, the process block, the cinema, the radio, the phonograph are used not, as they might so easily be used, to propagate culture, but its opposite. All the resources of science are applied in order that imbecility may flourish and vulgarity covers the whole earth.⁹

Huxley argues that active creative work generates an affinity with intellectually stimulating modes of self-sustained leisure practice. Routinely performed passive labor, however, in which the workers would become an integral part of the production

³ Cf. Aldous Huxley, “Work and Leisure,” *Along the Road* (1925) in *Aldous Huxley – Complete Essays*, Vol. 1, ed. Robert S. Baker and James Sexton (Chicago: Ivan R. Dee, 2000), 410–16.; Aldous Huxley, “The Outlook for American Culture: Some Reflections in a Machine Age,” *Harper’s Magazine* (August 1927) in *Aldous Huxley – Complete Essays*, Vol. 3, ed. Robert S. Baker and James Sexton (Chicago: Ivan R. Dee, 2000), 186–90; Aldous Huxley, “Boundaries of Utopia,” *Music at Night* (1931) in *Aldous Huxley – Complete Essays*, Vol. 3, ed. Robert S. Baker and James Sexton (Chicago: Ivan R. Dee, 2000), 124–25.

⁴ Huxley, “Work and Leisure,” 416.

⁵ Huxley, “Boundaries of Utopia,” 127.

⁶ Andrew Thorpe, *The Longman Companion to Britain in the Era of two World Wars: 1914–45* (London: Longman, 1996), 87.

⁷ *Ibid.*, 72.

⁸ Aldous Huxley, “Pleasures,” *On the Margin* (1923) in *Aldous Huxley – Complete Essays*, Vol. 1, 356.

⁹ Huxley, “The Outlook for American Culture,” 188.

process,¹⁰ while conscious reflection is subsequently absorbed, induces their receptive exposure to mass leisure media. This specifically late modernist physiological reflex—“the effects of mechanomorphism,”¹¹ according to Huxley in 1937 – is permanently triggered and habitually solidified through its processual mechanization within the daily industrial cycle of mass production and mass consumption: “[...] a mind almost atrophied by lack of use, unable to entertain itself [...]”;¹² writes Huxley, as early as 1923, regarding “the performance of purely mechanical tasks [and] distractions as mechanically stereotyped”,¹³ to conclude six years later, in the article “Machinery, Psychology, and Politics”, that progressive “mechanization creates uniformity of exterior and interior behaviour [...] through spiritual opiates and thought-substitutes.”¹⁴ In sharply dissecting the contemporary internationalized media landscape, Huxley states: “Machinery, then, has created leisure and multiplied the number of impressions which men and women can receive.”¹⁵

Instrumentalizing cinema

Cinema and Human Conditioning (1920s/30s)

Aside from the low cost at which the velvet luxury of the cinema was available, mainly three factors were responsible for its sustained influence upon British culture: Its infrastructural organisation in chain-networks (reels) across the country; the extension of its seating-capacity to over 1.000 viewers per palatial venue, and a continuous program of cinema performances across the day that ensured its omnipresence in the rhythm of everyday life.¹⁶ Alarmed by the speed of these developments, Huxley wrote in 1936: “When I was last at Margate, a gigantic new movie palace had just been opened. Its name implied a whole social program, a complete theory of art; it was called “Dreamland.” At the present time, the cinema acts far more effectively as the opium of the people than does religion.”¹⁷ (Figures 1a, 1b, 1c) In the 1920s, Art Deco

¹⁰ See Cecil Delisle Burns, *Industry and Civilization* (London: Allen and Unwin, 1925), 98. Burns ascribes the mechanization of labourers' minds to their close contact with machines.

¹¹ Aldous Huxley, “War,” *Ends and Means* (1937) in *Aldous Huxley – Complete Essays*, Vol. 4, ed. Robert S. Baker and James Sexton (Chicago: Ivan R. Dee, 2000), 231.

¹² Huxley, “Pleasures,” 357.

¹³ *Ibid.*, 356.

¹⁴ Aldous Huxley, “Machinery, Psychology, and Politics,” *The Spectator* (November 23, 1929) in *Aldous Huxley – Complete Essays*, Vol. 1, 221.

¹⁵ Aldous Huxley, “An Outlook for American Culture,” *Harper's Bazar* (August 1927) in *Aldous Huxley – Complete Essays*, Vol. 3, 186.

¹⁶ See especially Dorothy Richardson's column “Continuous Performance” in the film art journal *Close Up*, written between 1927 and 1933.

¹⁷ Aldous Huxley, “Writers and Readers,” *The Olive Tree* (1936) in *Aldous Huxley – Complete Essays*, Vol. 4, 25. The amusement park “Dreamland Margate” opened in 1921, including a wooden roller-coaster (modelled after the scenic entertainment venue on Coney Island, New York). Of the three Art Deco cinema palaces that were built in the 1930s in Margate and Cliftonville, the Dreamland, being the third, was opened on March 22nd 1935. The infrastructure of the cinema venue included a powerful Compton-Waterman organ.

Cinema venues, embedded into the scenario of a vast amusement park, were likely to inspire the future of mass entertainment, particularly through its progressive interior design. In 1931, Huxley expressed:

Already mass production has made it possible for the relatively poor to enjoy elaborate entertainments in surroundings of more than regal splendor. The theaters in which the egalitarians will enjoy the talkies, tasties, smellies, and feelies, the Corner Houses where they will eat their synthetic poached eggs on toast-substitute and drink their surrogates of coffee, will be prodigiously much vaster and more splendid than anything we know today.¹⁸

Looking into the future (the year 3000), he speculates in a magazine article, “The Outlook for American Culture: Some Reflections in a Machine Age” (1927) that powerful trust monopolies, by controlling the recreation industry, will have numbed the play instinct and its modes of creative expression.¹⁹ In 1923, at a point, where the movie industry had barely gained momentum, he mourned the decline of the creative impulse, by defining with almost etymological precision the term and state of immersion: “Countless audiences soak passively in the tepid bath of nonsense. No mental effort is demanded of them, no participation; they need only sit and keep their eyes open.”²⁰ Huxley, a pessimistic advocate of the free human will, distinguished categorically between an individual leisure practice derived from the intellect and a mass leisure entertainment that addresses the most archaic of instincts. On the one hand, he favored established modes of self-sustained creativity that predated the emergence of electronic media;²¹ on the other, he saw the didactic potential of cinema documentaries in the area of primary and secondary education. Stimulating the play instinct, Huxley argues, was most efficiently practiced once applied to the youngest amongst the citizens:²²

A boycott of sports news and murder stories, of jazz and variety, of film love, film thrills, and film luxury, is simultaneously a boycott of political, economic and ethical propaganda. Hence the vital importance of teaching as many young people as possible how to amuse themselves and at the same time inducing them to wish to amuse themselves.²³

¹⁸ Huxley, “Boundaries of Utopia,” 125–26.

¹⁹ Huxley, “The Outlook for American Culture: Some Reflections in a Machine Age,” 189.

²⁰ Huxley, “Pleasures,” 356.

²¹ Aldous Huxley, “On Making Things too Easy,” *Vanity Fair* (January 1926) in *Aldous Huxley – Complete Essays*, Vol. 2, ed. Robert S. Baker and James Sexton (Chicago: Ivan R. Dee, 2000), 57.

²² Aldous Huxley, “The Critic in the Crib,” *Vanity Fair* (1929) in *Aldous Huxley – Complete Essays*, Vol. 3, 12–13.

²³ Huxley, “Education,” in *Ends and Means* (1937), 290.

Agenda setting and political economy – in dictatorial as well as democratic states – was an additional challenge that Huxley identified as a threat to modern society. Referring to the status of film, radio, and the press within Stalinist Russian and fascist Italian propaganda, he exemplifies how concerted mass-suggestion alters existing modes of thought and feeling, to forge novel societal role models.²⁴ Furthermore, he envisioned how bio-psychological intervention, interacting with pharmacology, would eventually transform physiological habits at the earliest stages of human life.²⁵ Alongside human conditioning, through eugenic reforms, drugs or mass media, Huxley advocated in his article “The Prospect of Fascism in England” (1934) to utilize cinema for distractions, in order to solidify democracy.²⁶ By the 1930s, cinematic immersion had exemplarily established itself as one of these addictive psychological satisfactions²⁷ in England and America. Huxley foresaw that it would deepen in its intensity – concomitant with the technological progression of the medium – during the 20th century, and beyond.

Huxley's *Feelies*

In Huxley's dystopic *Brave New World*, in the year after Ford 632 (2450 A.D.), the immense leisure of the society (seven and a half hours of light work per day) is countered by a daily intake of drugs, gambling and unrestricted sex, combined with frequent visits to palatial cinema-venues.²⁸ Measures through which the state exercises full control over his genetically pre-conditioned population: “no leisure from pleasure, not a moment to sit down and think.”²⁹ The urban cinematic chain networks of *The Feelies* are organized by the “Feeling Picture” headquarters in their vast London-based propaganda offices³⁰ and the multisensory movies produced in the extensive Hounslow Feely Studio. A College of Emotional Engineering is facilitating professional academic research and education in this market segment.³¹

Criticizing the introduction of sound and the usage of close-ups in *The Jazz Singer* (1927) as elements that turned the film from an authentically artistic into a decadent medium,³² Huxley had made consecutive attempts since the Mid-1920s to fore-

²⁴ Aldous Huxley, “Imitations,” *Hearst* (September 26, 1931) in *Aldous Huxley – Complete Essays*, Vol. 3, 293; “Science and Civilization,” in a Broadcast on the BBC National Program, January 13, 1932; published as “Science – the Double-Edged Tool,” *The Listener*, January 20, 1932 in *Aldous Huxley – Complete Essays*, Vol. 3, 151.

²⁵ Aldous Huxley, “Education,” *Ends and Means* (1937) in *Aldous Huxley – Complete Essays*, Vol. 4, 288.

²⁶ Aldous Huxley, “The Prospect of Fascism in England,” *Time and Tide* (March 1934) in *Aldous Huxley – Complete Essays*, Vol. 3, 383.

²⁷ Aldous Huxley, “Education,” *Ends and Means* (1937) in *Aldous Huxley – Complete Essays*, Vol. 4, 288.

²⁸ Aldous Huxley, *Brave New World* (London: Penguin, Random House, 2007), 47–48.

²⁹ *Ibid.*, 47.

³⁰ *Ibid.*, 56.

³¹ *Ibid.*, 57.

³² Aldous Huxley, “Silence is Golden,” *Do What You Will* (1929) in *Aldous Huxley – Complete Essays*, Vol. 2, 21–23.

cast the future technological, and hence aesthetic development of cinema alongside other media. In 1935, he predicted television-sets a common standard in hotel-rooms, a refinement in stereoscopy, color-applications, synthetic voices and synthetic sounds (implying the production of sound-track compositions).³³ Following his previous findings regarding media technology, Huxley extends in his novel the recent introduction of synchronized sound in the movie industry to the other senses, a transformative innovation that he indicates – in reference to “the Wurlitzer”, a theatre organ used to create sound for silent movies – by a “Super-Vox Wurlitzeriana rendering of ‘Hug me, till you drug me, honey.’”³⁴ The properties and effects of the elaborate cinema-technology are best summarized in the advertisement of the movie *Three Weeks in a Helicopter*, whose pornographic plot is subordinated to an engulfing sensation: “AN ALL-SUPER-SINGING, SYNTHETIC-TALKING, COLOURED, STEREOSCOPIIC FEELY, WITH SYNCHRONIZED SCENT-ORGAN ACCOMPANIMENT.”³⁵ The overture played by the scent-organ at the beginning of the film has been designed to put the audience, through a delicately balanced composition of sounds, smells, and flavors, into an entranced stage:

a delightful refreshing Herbal Capriccio – rippling arpeggios of thyme and lavender, of rose-mary, basil, myrtle, tarragon; a series of daring modulations through the spice keys into am-bergris; and a slow return through sandalwood, camphor, cedar and new-mown hay (with occasional subtle touches of discord – a whiff of kidney pudding, the faintest suspicion of pig’s dung). [...] In the synthetic music machine, the soundtrack-roll began to unwind. It was a trio for hyper-violin, super’cello and oboe-surrogate that now filled the air with its agreeable languor. [...] Sunk in their pneumatic stalls, Lenina and the Savage sniffed and listened. It was now the turn also for eyes and skin.³⁶

The experiential technology conceived by Huxley goes further with its feely effects that are directed towards the human nervous system, in offering “electric titillation”³⁷ of diverse tactual intensity stages that the spectators regulate through metal knobs integrated in their chairs.³⁸ It is with this particular central function that the

³³ Aldous Huxley, “The Next 25 Years,” *Daily Express* (May 8, 1935) in *Aldous Huxley – Complete Essays*, Vol. 3, 423–24.

³⁴ Huxley, *Brave New World*, 176. “Wurlitzer” (named after Rudolph Wurlitzer, the owner of the company) was manufactured in North Tonawanda, New York. It is here adapted, modified and extended in its function radius to the latest technological standards of the 21st century imaginable.

³⁵ *Ibid.*, 145.

³⁶ *Ibid.*, 145.

³⁷ *Ibid.*, 146–47.

³⁸ *Ibid.*, 146.

Feelies are first introduced to the reader: “There’s a love scene on a bearskin rug; they say it’s marvelous. Every hair of the bear reproduced. The most amazing tactual effects.”³⁹

In a synthetically composed tension of sedated and hyper-stimulated senses that Frost accentuates in her analysis,⁴⁰ the audience collectively submerges in a fluid interaction of visual, acoustic, olfactory, and tactual effects that address and awaken physical instincts:

[...] suddenly, dazzling and incomparably more solid-looking than they would have seemed in actual flesh and blood, far more real than reality, there stood the stereoscopic images, locked in one another’s arms, of a gigantic negro and a golden-haired young brachycephalic Beta-Plus female. [...] The stereoscopic lips came together again and once more the facial erogenous zones of the six thousand spectators in the Alhambra tingled with almost intolerable galvanic pleasure. ‘Ooh...’⁴¹

Stimulation of the audience by scented screenings and electric buzzers was (unsuccessfully) implemented for a short time-period in cinema-venues during the 1950s, while attempting to enhance sensation. In an ironically exaggerated way, Huxley’s future society is modeled after his critical observations about the interrelation of mass culture and social change during the interwar years in Britain. In *The Battle of the Sexes*, an article written for *Vanity Fair* in 1928, he concluded, with reference to an emerging promiscuous indulgence: “The life of instinct and the body is the death of consciousness and the life of consciousness is the death of instinct.”⁴² According to Huxley’s predictions, the cinema will be instrumentalized as one additional mode of orchestrated conditioning, equal in its efficiency to suggestibility (“hypnopedia”) or drugs (“soma”):

The mind had to be made conscious of the physical reality from which it was accustomed to shrink. [...] Their reflexes have been wrongly conditioned; they should be given a course of shocks until the conditioning is undone. The theory, I am sure, is psychologically sound. But to put it into practice is difficult. At every ringing of their pornographic bell, the right-thinkingly conditioned smut-hounds foam at the mouth. And unfortunately, they are in a position to do more than foam; they are in a position to open our letters, confiscate our books, and burn our pictures.⁴³

³⁹ *Ibid.*, 29.

⁴⁰ Laura Frost, “Huxley’s *Feelies*: Engineered Pleasure in *Brave New World*,” in *The Problem with Pleasure – Modernism and its Discontents* (New York: Columbia University Press, 2013), 141.

⁴¹ Huxley, *Brave New World*, 146.

⁴² Aldous Huxley, “The Battle of the Sexes,” *Vanity Fair* (May 1928) in *Aldous Huxley – Complete Essays*, Vol. 2, 111–12.

⁴³ Aldous Huxley, “To the Puritan all Things are Impure”, in *Music at Night* (1931), 239–40.

In comparing the classical literary to the emerging visual arts (especially Shakespeare to the cinema), Huxley tends to associate throughout his writings the word with conscious reflection (intellect) and the image with a rather subconscious, instinctive mode.⁴⁴ According to his analysis, it is particularly the habitual mechanomorphic configuration of image, sound, and instinct that coins the mind-set of the younger, post-Edwardian Industrial youth and that of subsequent generations. In *Brave New World*, the relationship between instinct and consciousness that conventionally marks the distinction between animal kingdom and urban culture, is reversed: John, labeled as “The Savage” from the reservation, continues to read and quote Shakespeare and tries to sustain his conscious self,⁴⁵ while Lenina exclusively lives her physical-instinctive self – in direct response to their shared exposure to cinematic excesses.⁴⁶ Lenina incorporates physiologically what Huxley defines as “Fordism”⁴⁷ by translating it into “mechanomorphism” and what Seltzer characterizes as “the radical and intimate *coupling* of bodies and machines.”⁴⁸ an act in which the cinema-screen functions indeed as a prosthetic device, as indicated by Frost in her discussion of the *Feelies*, by referencing Buck-Morss.⁴⁹

Simulation rides in multisensory environments

Morton Heilig, *The Cinema of the Future* (1955) and *Sensorama* (1957)

In 1957, Huxley's multisensory vision of immersive cinema was to be realized in a first virtual (though still non-digital) attempt by the American inventor and cinematographer Morton Heilig, who completed in 1962 his *Sensorama*, an interactive machine that combined 3-D effects, wide vision, motion, colour, stereo-sound, aromas, wind, and vibrations (Figures 2a, 2b). Heilig expanded and refined these modes of immersion to a technologically advanced form, the “experience theatre”,⁵⁰ in 1969. In 1955, he had phrased in his essay *The Cinema of the Future* the theoretical backdrop for this arcade-like simulator. It is at the core of his essay, however, that he critically questions the reliability of Huxley's argumentation:

⁴⁴ Huxley, “The Battle of the Sexes,” 149. The Savage was silent for a little. “All the same”, he insisted obstinately, “*Othello's* good, *Othello's* better than those feelies.” “Of course it is”, the Controller agreed. “But that's the price we have to pay for stability. You've got to choose between happiness and what people used to call high art. We've sacrificed the high art. We have the feelies and the scent organ instead.” (194).

⁴⁵ *Ibid.*, 147–49.

⁴⁶ *Ibid.*, 168–73.

⁴⁷ Aldous Huxley, “To the Puritan, all Things are Impure,” *Music at Night* (1931) in *Aldous Huxley – Complete Essays*, Vol. 3, 238–39. “Fordism, or the philosophy of industrialism, [...] demands that we should sacrifice the animal man (and along with the animal, large portions of the thinking, spiritual man) not indeed to God, but to the Machine. [...] Of all the ascetic religions Fordism is that which demands the cruellest mutilations of the human psyche – demands the cruellest mutilations and offers the smallest spiritual returns.”

⁴⁸ Mark Seltzer, *Bodies and Machines* (New York, London: Routledge, 1992), 13.

⁴⁹ See Susan Buck-Morss, “Prosthesis of Perception: A Historical Account,” in *The Senses Still: Perception and Memory in Material Culture in Modernity*, ed. C. Nadia Seremetakis (Chicago: University of Chicago Press, 1996), 48, and Frost, “Huxley's *Feelies*: Engineered Pleasure in *Brave New World*,” 132.

⁵⁰ US Patent Office, Sept. 30, 1969, Patent #3469837.

Yes, the cinema of the future will far surpass the “Feelies” of Aldous Huxley’s *Brave New World*. And like many other things in this book that are simply nightmarish because superficially understood, it will be a great new power, surpassing conventional art forms like a Rocket Ship outspeeds the horse and whose ability to destroy or build men’s souls will depend purely on the people behind it.⁵¹

Written from a perspective that links the arts with advances in science and technology, Heilig’s article does reveal nevertheless, in its specific association of Ford’s assembly line with the industrialization of the creative arts, conspicuous correspondences with Huxley’s argumentation: “Open your eyes, listen, smell and feel – sense the world in all its magnificent colors, depth, sounds, odors and textures this is the cinema of the future!”⁵² Taking the 23 years of cinematic progression that bridges the two texts into account, Huxley’s predictions that resonate in Heilig’s historical recapitulation of 3D cinema are likely to have (at least as an ideal model of a total work of art) co-inspired the *Sensorama*. Both Huxley’s fictional and Heilig’s actual cinematic novelty are subsequent extensions of contemporary technological innovations: the *Sensorama* is just as much influenced by the wide-screen stereophonic cinema (*Cinerama*) of the early 1950s as the *Feelies* had been by the invention of the Vitaphone in 1926 that offered the possibility of sound-synchronized moving pictures.

4DX Cinema Venue by CJ4D PLEX, CJ Conglomerate, South Korea (2009)

In essence, Huxley’s conception of multisensory cinema is solidly based upon his knowledge of psychology, the biological and cognitive sciences, his fundamental insights into human consciousness and perception, gained particularly from the dialogues with his brother, the evolutionary biologist Julian Huxley.⁵³ It is on this ground that Huxley anticipates cinematic technologies as “extensions of man,”⁵⁴ respectively, prosthetic devices that are potentially suitable for human conditioning.

Closely related to Huxley’s *Feelies* is the 4DX cinema technology, developed in 2009 by the South Korean Company CJ4D PLEX (Figure 3) which enwraps the audience into an augmented environment, as an advertisement from Cineworld, Dubai (UAE), of 2019 indicates: “4DX – Be in the movie / Providing a revolutionary cinematic experience which stimulates all five senses, the 4DX includes high-tech motion seats and special effects including wind, fog, lightning, bubbles, water, rain and scents, in

⁵¹ Morton Heilig, “The Cinema of the Future,” in *Technology and Culture, The Film Reader*, ed. Andrew Utterson (London, New York: Routledge, 2005), 22.

⁵² *Ibid.*, 21.

⁵³ See R. S. Deese, *We are Amphibians: Julian and Aldous Huxley on the Future of our Species* (Oakland, CA: The University of California Press, 2015).

⁵⁴ Heilig, “The Cinema of the Future,” 17–25 and Marshall McLuhan, *Understanding Media – The Extensions of Man – Critical Edition*, ed. W. Terrence Gordon and Corte Madera (CA: Gingko Press, 2003) [1964]. Certainly aware of Heilig’s text, McLuhan may have borrowed the sub-headline for his book-title.

both 2D and 3D formats. These effects work in perfect synchronicity with the action on-screen – creating the most unmissable and exhilarating cinematic experience yet.”⁵⁵ This cinematic mode of multisensory immersion, though, remains in its receptive synchronicity below the level of the one described by Huxley, as it does not provide the audience with sensations of the on-screen characters that are being directly transmitted to the nervous system. More significantly, it rather points backward, towards the mutual origins of panorama, cinema, and roller-coaster-rides in American and British entertainment parks,⁵⁶ of which it is a synthesis⁵⁷ – a parallel development that Huxley was well aware of through his studies of British Edwardian leisure culture.⁵⁸

Hugo d'Alési, *The Maréorama*, Exposition Universelle, Paris (1900)

Hugo d'Alési's *Maréorama*, for instance, shown at the Exposition Universelle in Paris, was a ship-shaped multisensory motion panorama (“panorama a tableaux mobiles”) that simulated a Mediterranean sea-voyage on a steamboat (Figures 4a, 4b). D'Alési had painted its main geographical destinations on a scenic panorama canvas (almost one kilometer long and 15 meters high) that rested upon two mechanical cylinders, rotating at a determined speed. According to Barbosa, up to 1.500 people stood on the platforms of the upper and lower deck, which could be hydraulically moved to reproduce the motion of sea-waves, while the spectators were watching the Mediterranean coastal landscapes passing by. Its inventor described the special effects created by his device:

[...] the fine arts are represented in this work as a colossal bet, as something of a truly new order [...] Why should we mention painting, music or even dancing, individually? This is, in fact, a holistic work of art aimed at seducing through the three most subtle senses; we haven't forgotten the smells, which in our synthesis evoke the sea breeze of Eastern perfumes. We shall witness a sunset and the beginning of a new day, nocturnal effects and an electric and thunderous storm.⁵⁹

⁵⁵ “4DX – Extreme Cinema”, Cineworld, <https://www.cineworld.co.uk/4dx#/>, acc. February 21, 2019.

⁵⁶ Erkki Huhtamo, “Encapsulated Bodies in Motion: Simulators and the Quest for Total Immersion,” subchapter “Phantom Bodies in a Phantom Train,” in *Critical Issues in Electronic Media*, ed. Simon Penny (New York: State University of New York Press, 1995), 168–71.

⁵⁷ The stereoscopic terms “Cineorama” (1897) and “Cinerama” (1952) themselves capture this historical development in their amalgamation of “cinema” and “panorama”. Whereas Raoul Grimoin-Sanson operated his *Cineorama* with a circulatory screen that displayed the images of ten synchronized projectors, Fred Waller's *Cinerama* used a concave widescreen (of a 146° arc) towards which three synchronized projectors were directed.

⁵⁸ See Josephine Kane, “Edwardian Amusement Parks: The Pleasure Garden Reborn,” in *The Pleasure Garden, from Vauxhall to Coney Island*, ed. Jonathan Conlin (Philadelphia: University of Pennsylvania Press, 2013), 217–46; Josephine Kane, *The Architecture of Pleasure: British Amusement Parks 1900–1939* (London: Routledge, 2016 [2013]), 79–116.

⁵⁹ Hugo d'Alési, “Exposé d'un projet de panorama mobile dit Maréorama”, (1895), Breveté S. G. D. G., Archives Nationales. Paris, Catalog no. F/12/4355, in Sonssoles Hernandes Barbosa, “The 1900 World's Fair or the Attraction of the Senses: The Case of the Maréorama,” *The Senses and Society* 10, 1 (2015): 46.

A ship crew, dancers, and an orchestra flanked the multisensory scenario in which the audience itself naturally assumed the roles of actor-passengers.⁶⁰

Conclusion

Huxley's anticipation of future multisensory cinematic immersion is firmly deduced from the historical and most recent technological development of entertainment landscapes and in the movie industry between the late 19th century and 1930. The conjunction between 'body/mind', 'machine', and the cinema, with regard to immersive experiences of a "dream-like quality",⁶¹ had been occupying his writings since the 1920s. Most significantly, in an account of his travels through India and Burma, he compares his experience of contemplating the Rajasthan landscape from within a train-wagon to being absorbed by a movie, and ultimately to the intake of drugs:

Sitting relaxed in the machine I stare at the slowly shifting distances, the hurrying fields and trees, the wildly fugitive details of the immediate hedgerow. Plane before the plane, the successive accelerations merge into a vertiginous counterpoint of movements. In a little while I am dizzied into a kind of trance. Timelessly in the passivity almost of sleep, I contemplate a spectacle that has taken on the quality, at once unreal and vivid, of a dream. At rest, I have an illusion of activity. Profoundly solitary, I sit in the midst of a phantasmagoria. I have never taken the Indian hemp, but from the depth of my trance of speed I can divine sympathetically what must be the pleasures of the hashish smoker or the eater of bhang. Much less completely, but satisfyingly enough, the movies have power to induce in me a similar trance. Shutting my mind to the story I can concentrate on the disembodied movement of light and shadow on the screen, until something that at last resembles that delicious hypnotism of speed descends upon me and I slide into that waking sleep of the soul, from which it is such a cruel agony to be awakened once again into time and the necessity of action.⁶²

Starting with the Lumière Brothers' *L'Arrivée d'un train en gare de la Ciotat* (1895), the train played an eminent role in the immersive history of early cinema (with either inwards or outwards movement along the depth axis of the image). The speed rush of motion that Huxley considered being core-characteristic for the age in which he was writing is comparable to the impact of drugs on mind and body. The cinema, the train, and drugs prove to be all transitional media of an equally strong immersive extent. Huxley's juxtaposition of

⁶⁰ Ibid., 41–46.

⁶¹ Aldous Huxley, "Where are the Movies Moving?" *Vanity Fair* (July 1925) in *Aldous Huxley – Complete Essays*, Vol. 1, 176.

⁶² Aldous Huxley, "India and Burma," in *Jesting Pilate* (1926), in *Aldous Huxley – Complete Essays*, Vol. 2, 454–55.

vehicle and “cinema” implies an ideal of immersive *presence* that can only be achieved once the spectator is being seated *inside* the image itself: “I sit in the midst of a phantasmagoria.” The element of immersion does here evoke the effects triggered by the simulation rides around 1900 that were situated on panoramic vehicle stages: Multiple layers of moving objects and scrolled paintings, unfolding at different levels of speed, provided the audience with an illusive perspective of motion and depth.⁶³ Whereas the spectator’s body was interactively engaged in the augmented environment of the *Maréorama*, it is significantly less active in the cases of the *Sensorama* and the contemporary 4DX cinemas. To all of the modes of mediated multisensory immersion discussed above, physical and therewith optical distance are conditional, as Metz indicates, for a conscious reflection of the synthetic narrative sphere within which the spectator is temporarily present.⁶⁴ The scarcest of distances possible for an individual audience Huxley had described in 1937, by referencing the most recent future forecast of an American biologist: “micro-cinematographs which they can slip on like spectacles.”⁶⁵ The notion of total immersion, however, could in the near future be by definition *immediate*, having little to do with optics, the screen, or cinema itself, but with the inclusive digital human body.

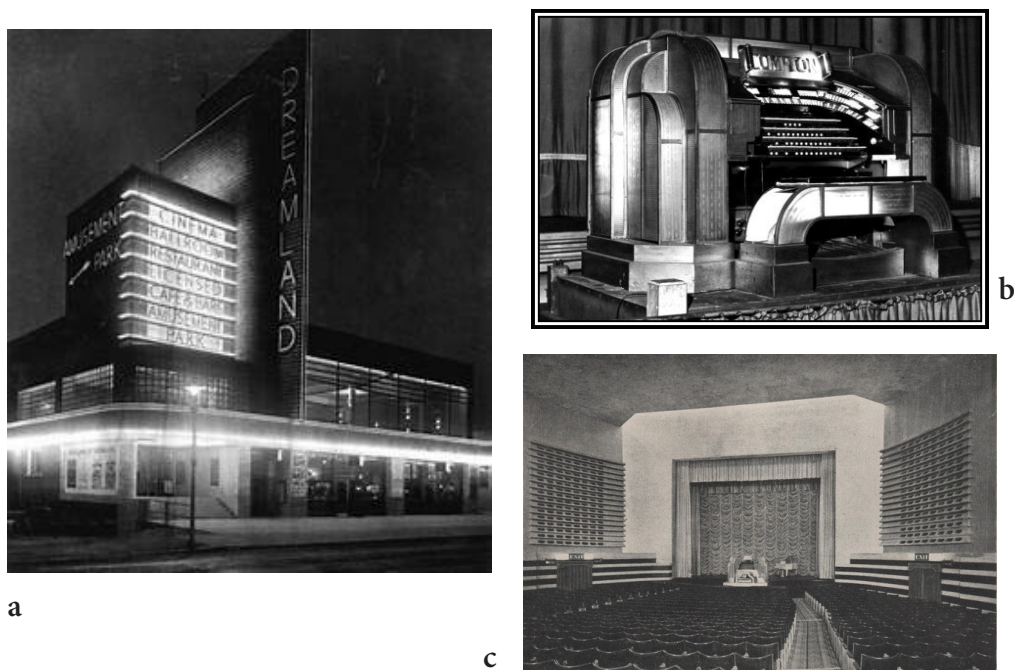


Figure 1: J. R. Leathart FRIBA, W.R. Granger FRTOA and J.B. Iles, AR1BA, Dreamland Cinema (2.200 Seats), Margate, England (Opening 1935): (a) Streetview; (b) Compton-Waterman Organ; (c) Interior of Cinema Venue.

⁶³ Walt Bransford, “The Past was no Illusion,” in *Digital Illusion: Entertaining the Future with High Technology*, contributing ed. Clark Dodsworth Jr. (New York: Addison-Wesley Professional, 1997), 53–54.

⁶⁴ Christian Metz, *Psychoanalysis and Cinema – The Imaginary Signifier* (London: MacMillan Press, 1983), 60.

⁶⁵ Aldous Huxley, “Education,” *Ends and Means* (1937) in *Aldous Huxley – Complete Essays*, Vol. 4, 289.

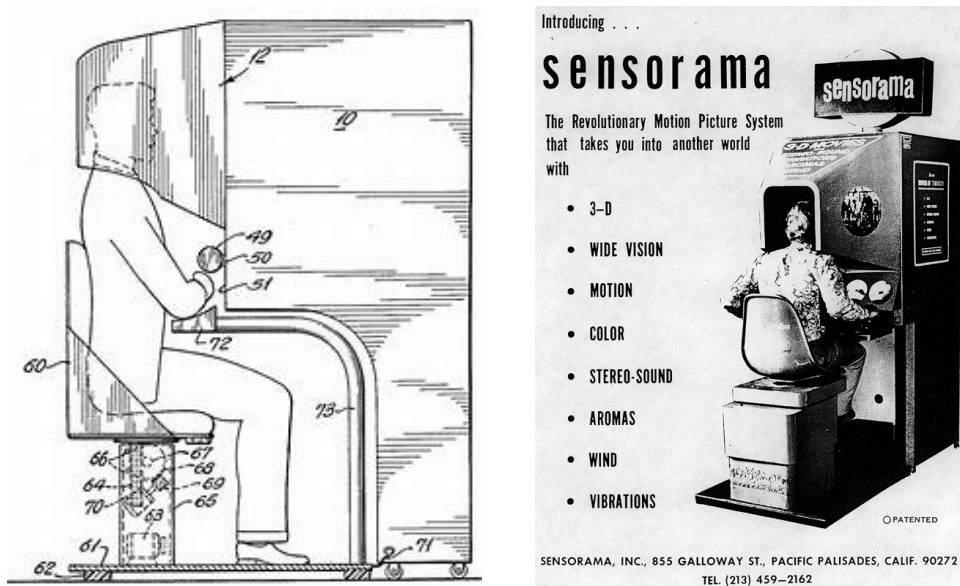


Figure 2: Morton Heilig, *Sensorama* (1962):

(a) Figure 5 of US Patent # 3050870; (b) Product Advertisement of the 1960s.



Figure 3: 4DX Auditorium at VOX Cinemas by CJ 4D PLEX, CJ Conglomerate (South Korea 2009); Global Advertisement, 2019.

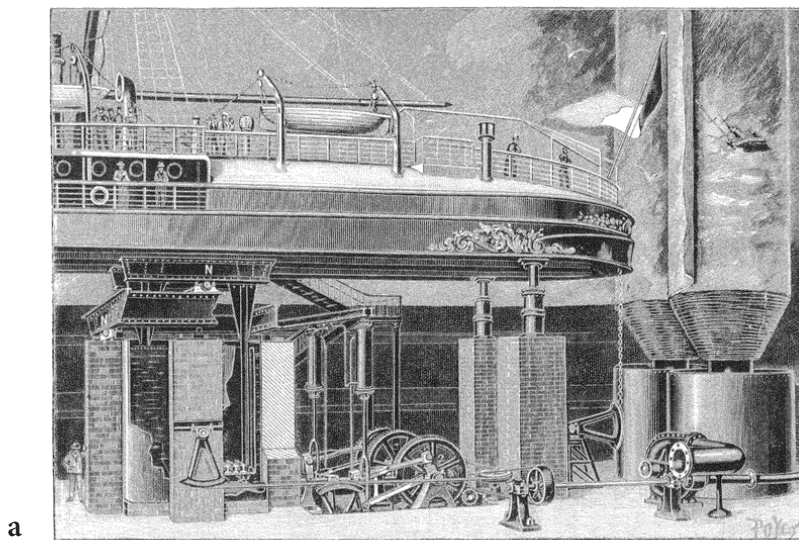


Fig. 1. — Le Maréorama. — Mécanisme dominant les mouvements de roulis et de tangage.

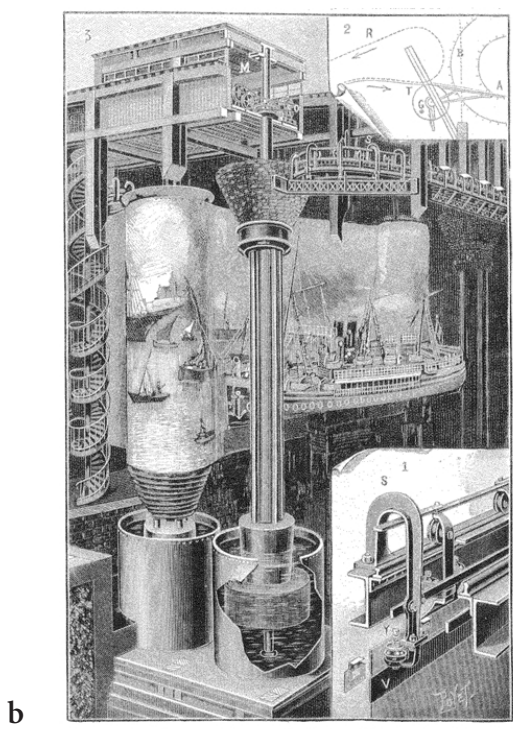


Fig. 2. — Le Maréorama. — Mécanisme de déroulement et d'enroulement des toiles.

Figure 4: Hugo d'Alési, *The Maréorama*, Exposition Universelle, Paris (1900):
(a) Lower Deck and Panorama-Canvas Cylinder;
(b) Ship Model Stage, unfolding Panorama-Canvas, and Cylinder.

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