Television Art’s Abstract Starts: Europe circa 1944–1969*

CHRISTINE MEHRING

Unlike all previous communications technologies, radio and television were systems primarily devised for transmission and reception as abstract processes, with little or no definition of preceding content. When the question of content was raised, it was resolved, in the main, parasitically... It is not only that the supply of broadcasting facilities preceded the demand; it is that the means of communication preceded their content.

—Raymond Williams, Television (1974)

Video and television art, so the story goes, started with Nam June Paik. That he first turned to television in Wuppertal, West Germany, before moving to New York has remained at best a peculiar side note to discussions of the relationship between art and television, which, at least on this side of the Atlantic, appear largely dominated by art made in the U.S. What is more, even at the presumed moment of its origin, Paik himself deflected the honor of being the first television artist. In a text published on the occasion of his 1963 exhibition Exposition of Music—Electronic Television at Galerie Parnass in Wuppertal, Paik opens with a credit that today most art historians would find obscure and, even for those on more intimate terms with postwar European art, bizarre: “As is well known Prof.

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K. O. Götz has been publishing for a long time about kinetic painting and the programming of electronic television. My interest in television has been fundamentally inspired by him. I thank him for this with great respect.”

During the preceding decade, K. O. Götz had become a leading figure in the German Informel movement, co-founding the Frankfurt-based Quadriga group and exhibiting at Documenta 2 and the 1958 Venice Biennale. What could television possibly have to do with Informel abstraction and Götz’s painterly gestures?

Television art can be defined as encompassing art made for or with broadcast television, or as involving essential characteristics of the medium (such as transmission through space) or components of its hardware (such as the cathode ray tube). If television art historically preceded the invention of video and therefore video art, it can be distinguished from it conceptually as well—through its engagements with transmission, live capability, and broad reach, for example. At least in television art’s early years, such conceptual aspects—along with the medium’s electronic makeup, poor resolution, small-scale images, casing, and different viewing conditions—also set it apart from avant-garde film.

Understood this way, television art started out closely related to abstract art. It was made by artists who primarily worked nonfiguratively in other media and who used the new medium to produce abstract images of a self-reflexive nature. Modernist artists and critics routinely posited abstraction as the culmination of a process of reduction of long-established media like painting and sculpture to their essence. By contrast, the pioneering television artists turned to already-established abstraction in a foundational gesture of isolating the medium’s essence to open up yet unknown possibilities. The implications of this are twofold. For one, the essential qualities they turned up paradoxically mapped onto preexisting concerns that had emerged from their work in more traditional media. As a result, while seeking to define the essence of television, early abstract television art challenges clear separations between old and new media—between painting and sculpture, on the one hand, and reproductive and electronic media, on the other.

In addition, if the essence of the medium opened up, rather than closed down, possibilities, this is consistent with the fact that television in its early years was a medium without “content,” as Raymond Williams has noted, and this opened the door for artistic explorations of its material and technical makeup. If early television had no content, in the sense of programming that made use of the medium’s technical possibilities, early abstract television art gave the medium content of a different kind. What was “essential” to the medium in technical and formal terms became closely intertwined with a variety of historical and cultural

1. Nam June Paik, untitled text, in pamphlet “Exposition of Music—Electronic Television” (Wuppertal: Parnass, 1963), in Best and Jährling/Parnass, Zentralarchiv des Internationalen Kunsthändels (henceforth ZADIK), A5 VIII; republished in Nam June Paik, Niederschriften eines Kulturnomaden: Aphorismen, Briefe, Texte, ed. Edith Decker (Cologne: DuMont, 1992), p. 96. This and all subsequent translations from German are my own unless otherwise noted.
meanings specific to the contexts from which early television art arose—including National Socialism and World War II, geographical shifts in the postwar art world, Europe’s delayed economic growth, and the Cold War—and thus proved the most intrinsic matters of this medium to be always extrinsic as well.

Television art’s abstract beginnings occurred not in the United States, where television was immediately a commercial enterprise and became a mainstay of households by the early 1950s, but in continental Europe, where television was more or less public and, due to war and reconstruction efforts, lagged behind the U.S. in terms of technology and access. This continental difference highlights the inherent duality in television between its definition as a mass medium and its purely technical and formal possibilities. While discussions of television art have exclusively focused on the former, its history actually begins with the latter. What follows is a comprehensive outline of this largely unknown history, its details, and its implications for a range of artists including Götz and Paik but also Lucio Fontana, Karl Gerstner, and the Zero group. In tending to the conjunction of television art and abstract art and in tracing the delayed, gradual emergence of television as a cultural force, this essay proposes an alternative history, or at the very least a pre-history, to television art’s pervasive associations with Pop art, corporate advertising, and mass entertainment.

* Radar and Electron Painting *

Later in the Galerie Parnass text, Paik explains the surprising credit he gives by paraphrasing Götz’s recollections about “experiments with cathode ray tubes in Norway (17 years ago),” which situate the beginnings of television art not only within the artistic context of abstraction and the geographical context of Europe, but also amidst the historical context of World War II.2 Trained as an artist and drafted into the Wehrmacht air force at the age of twenty-five, shortly before the beginning of the war, Götz was stationed in Norway from 1941 through—and after—the end of the war. As an officer, he worked with several ground-based radars strategically stationed around Stadlandet, a peninsula on the coast of central Norway suitable for monitoring the airspace over the North Sea for Royal Air Force fighter planes approaching occupied Scandinavia. Around 1943, Götz’s task became “to lead the fighters to the English planes with the help of radar equipment and voice radio and to pilot them back safely,” as well as “to protect ship traffic along the coast from English air attacks.” In the following year, Götz was put in charge of three newly installed radars, about which he and his peers were “so excited that we went into the radar station even during our free time.” The displays

on their circular screens resonated with the artist, who described the planes “as more or less large spikes on the radar screen. They distinguished themselves from the so-called noise, like on television after the station turns off its programming. The dancing swarms of dots are disturbances from the immediate environment of the radar equipment, and they make it difficult to find smaller spikes, which always result from objects in the distance.”

Though Götz’s opposition to National Socialism, as presented in his memoirs, can at times seem flippant, he had been forbidden to paint or exhibit. Nonetheless, during the war he intermittently managed to produce the type of increasingly abstract, Surrealist-inspired work he had begun in the 1930s, working on small sheets of paper with gouache, tempera, and ink. Because the young artist had also experimented with photograms and abstract films, it was a short leap to manipulating his radar screen electronically to create moving abstractions, although Götz denies they had anything to do with one another. Asked today about the details of these experiments with radar, he describes them as the result of applying electrical current to the radar instrument to create crossing lines. “These lines were horizontal, vertical, or diagonal, depending on the place where one connected anode (+ pole) or cathode (– pole). The straight lines ran in all directions.” Elsewhere he has written that he did so in collaboration with some of his technicians to “create diverse optical phenomena.” In notes made at the time for his so-called Facture Primer (Fakturenfibel)—a systematic vocabulary of forms available in nature and art and of the media available to articulate them—Götz enthusiastically sketched out, albeit in fragmentary language, the aesthetic possibilities he had stumbled upon using the military technology at his disposal. Under the subtitle Electron Painting, he writes:

A representation of forms of all kinds is possible with the help of the directed electron ray. Making forms visible on a luminescent layer, similar to a television studio (Fernsehtheater). The facture stimulations of the new forms brought about by the electron ray are by nature so strong and lively that no draughtsman could put them on paper. Not naturalistic surface television (Oberflächenfernsehen)—but electron painting. Conserving in optic-electronic ways with the help of the photocell, thereby stimulating the apparatus to control the cathode ray tube, which provides the optical experience.

4. For reproductions of early abstract work, ibid., pp. 159ff.; on Götz’s experience of National Socialism, pp. 215, 224, 244; on photograms and films made in 1935 and 1936, pp. 175–76. Götz stated the lack of relationship between the two in a fax to the author, May 18, 2007.
Retrospectively, though, Götz judges the possibilities of his actual manipulations during the war to be limited: “With the cathode ray tube we could create nothing but straight lines on the display. . . . The result was boring, because we could not create any curves.”

These experiments took place perhaps as early as 1944 and into the months following the end of the war on May 8, 1945, as Götz remained in Norway as a “disarmed person” until early 1946. Although his experiments at least temporarily disabled the transmission of signals, he acknowledges without hesitation that he did not think of his electronic manipulations as “politically subversive or anything like that.” He was “simply interested in the technical possibilities.” Moreover, what essentially amounted to a refunctioning of this war technology for aesthetic purposes was to some extent consistent with the outmoded nature of the particular radar equipment at Götz’s disposal. The Germans were then at a strategic disadvantage compared to the British, with their older system’s heavy weight, large size, unfavorable antenna shapes, hard-to-read displays, and resulting limited range and sensitivity to disturbance. In fact, our artist-cum-officer had been “stimulated by familiar interference patterns during radar operation.” Such interferences were likely common on the models Götz operated, for by the time they arrived on Stadlandet in 1944, they were already being replaced with longer-range types all over the Reich.

8. Ibid. Götz worked with two low-range Freya models and a Wassermann with a broader range of about 300 kilometers; he considered the latter up-to-date. Götz: Erinnerungen und Werk, vol. 1a, p. 257.
In *Facture Primer*, Götz referred to materials developed during the war as a new starting point, and indeed his radar experiments earned that title in a double sense. First, they led him to make the step into purely abstract work. This means that the origins of Informel are to be found, at least in Götz’s case, not in strict opposition to National Socialism, as has often been claimed, but amid its own dysfunction. The European abstraction that defined the decades after the war did not simply stand in opposition to the Fascist (and Communist) penchant for realism and propaganda. Secondly, as we will see, the radar experiments led him to create abstract paintings that mimicked electronically generated images.

Radar does not equal television, but their technologies, histories, and producers were closely related. Although Götz received his first set only at the end of 1965, thirteen years after postwar German television established itself, he “had heard about television during the war from superiors” and thought of “the isolated cathode ray tube very consciously as a precedent to television.” Television for Götz was a medium merely imagined, reachable only through radar. While regular German television programming had started in 1935 and peaked in the broadcast of the 1936 Olympics, reception and the potential for propaganda use were extremely limited—150,000 viewers had watched the sporting events in twenty-seven viewing rooms throughout Berlin—and broadcasting stalled during the war, as in other European countries. We can imagine that for Götz radar seemed a reasonable substitute. Both media electronically generate an image on a display with the help of a cathode ray tube, which receives electromagnetic waves: in the case of radar, these waves create a single image (by bouncing off the object that is rendered); in the case of television, they transmit an unlimited number of images (created somewhere in a broadcasting studio or the like). At least initially, their displays came in a restricted palette (black-and-white for television) and in rather low resolution (especially compared to film and photography); and they were both generated live across significant distances. By 1961, Götz was discussed as a television artist without, strictly speaking, ever having worked with a television.

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10. Götz, interview.
Following his forced farewell to radar at the end of the war, related projects, including television, remained on Götz’s mind. In letters written to art historian Franz Roh in the late 1940s, he tells of this continuing interest in “radar technology, my hobbyhorse,” and laments the unavailability of “cheap mass articles of high frequency technology as in the States.” In 1959, at the height of Götz’s Informel fame and around the time that Paik first visited him, he began a series of “Raster Pictures” (*Rasterbilder*)—flickering surfaces of close-toned squares distributed on a fine grid based on systematic permutations—which he considered a “pre-stage to electronically programmed, moving *Rasterbilder*.” Following unsuccessful attempts to have the German television producer Siemens turn these watercolors into pixelated images programmed to move, it seems Götz resigned himself to creating an animated film that would mimic electronically generated, moving images. *Density 10:2:2:1* was shot between 1962 and ’63 from stills of drawn patterns of grids within grids whose configurations changed according to calculated variations, executed with the intensive help of his students at the Dusseldorf academy—including his soon-to-be wife, Rissa, and Gerhard Richter. Paradoxically, the war had provided Götz with access to a technology that, while already outdated in 1944, was nevertheless more advanced than what he could get his hands on in the technologically euphoric period of postwar German reconstruction. Such asynchronicity suggests that we need to revise the established understanding of World War II merely as a creative rupture: it was in some cases also a preview.

As a result, Götz’s work in what we might regard as traditional media—which for him included drawing, painting, and film—became a stand-in, as it were, for his vision of work with a yet undetermined new medium that most closely resembled television. The Informel painting Götz became best known for, in fact, seems saturated with the ambitions of an electron painter. Götz’s signature technique, developed in 1952, elegantly interlocks black-and-white strokes created by brushes and squeegees, alternately applying paint and taking it off from a surface coated with still-wet glue. The smooth quality of the gestures results, in part, from the equally smooth quality of Götz’s ground, and it originated in experiments with monotypes—the 1948 series *Radio Genesis*


Radiogenese appears to be explicitly related to the wartime experiments. While the shared use of glass—on the radar screen and on the printing plate—seems merely coincidental, the glowing effect of the clean white reserves amid black and gray smudges echoes the formation of Götz’s vision in front of the radar and comes into focus in the subsequent mixed-technique paintings, where formal and conceptual similarities to electron painting multiply.

Given Götz’s intricate applications and subtractions of paint, black and white come to exist on the same plane, like the phosphor that evenly coats the back of the television screen but gradates from dimmed black to glowing white. Formal principles cut across apparently different modes of expression and media: as Götz wrote, “the most extreme consequence of the dissolution of classical form principles in painting through Informel . . . to me appeared to be the statistically programmed electronic pixel painting.” The glow of white and the dissolution of form create an impression of quasi-immateriality, resonating with Götz’s description of radar as an “optic without materiality, if very sensuous,” opposed to the materiality of the celluloid carrier of film. The Informel sense of movement likewise stems from an interest in transformation and immediacy first encountered in “live” radar work and film: “filmmaking mattered less to me than employing the possibilities of filming techniques and projection to record the metamorphoses of form and structural processes (derived from painting) in their kinetic course.”

This interest in immateriality, movement, and the dissolution of form aimed at overcoming subjective expression, not at asserting it, as is often sweepingly claimed for Informel painting at large. In both new and old media, Götz pursued a “tension of chance and intention,” and his serial manner of working certainly underlined a “mechanistical norm,” as one critic had it. In general, the critics’ terms for his forms, such as “swirling interferences,” unknowingly capture the electronic origins of Götz’s Informel.

The State of the Art of Television, 1953

Before television had its own identity, its bare formal qualities easily mapped onto those of abstract painting. Götz’s thinking across, though not quite fusing of, media also inadvertently subverted National Socialist ideology more subtly than the mere step into abstraction. The president of the Reich’s board for broadcasting,

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16. Götz: Erinnerungen und Werk, vol. 1b, p. 972. On other occasions Götz has asserted that these various activities had nothing to do with one another. Ibid., p. 854.
Hans Kriegler, for one, had called in 1938 for broadcast film and radio to focus on what was essential to their respective mediums. Notably, he had used the term *arteigen* in this context, the word referring not just to the purity of a medium but also to the purity of a species, and as such resonated with Nazi racial theories, thus giving a disturbing twist to familiar modernist rhetoric.

This background informed Gerhard Eckert’s *Die Kunst des Fernsehens: Umrisse einer Dramaturgie* (The art of television: outline of a dramaturgy), which counts as one of the earliest and most comprehensive, if least known, book-length studies of television as an art form. Published within months of the first transmissions of postwar German television on Christmas Day, 1952, it was inevitably based on an understanding of television from an earlier period, in this case on the research that had gained the media critic and historian a reputation under National Socialism. Although Eckert back then had advocated a propagandistic function of broadcast radio, his postwar book on television as art argued against a political role for the medium and for an artistic focus on its internal laws based on Gotthold Ephraim Lessing’s writings—surely without knowledge of Clement Greenberg’s related evocation of Lessing in his landmark 1940 essay “Towards a Newer Laocoon.” Eckert’s epigraph modifies a passage from Lessing about theater to read as a statement about television: “There are many steps that an emerging television has to climb to reach the peak of perfection; but a debauched television naturally is even further from this height: and I fear very much that the German [television] is more this than that.”

Essential characteristics of television for Eckert included, especially in contradistinction to film, its status as a licensed rather than commercial practice, the psychological impression (if not always actual fact) of live broadcasting, one-time viewing, the context of the home, the multiplicity of programs, collective production, and an inevitable connection to one’s visual surroundings.

Eckert thus partly located the essence of television in its ability to transmit live, recognizable events, and he took issue with the position developed by Carl


Haensel, who had helped defend the SS in the Nuremberg trials and subsequently worked for the *Südwestfunk* (SWF) while also writing on media. In a 1953 essay covering the live broadcast of the crowning ceremonies of Elizabeth II, a landmark event for European television, Haensel argued for the essential potential of television to become an abstract art form:

In some places distorted pictures appeared. Suddenly, however, these distorted pictures completely lost the connotation of a parody or caricature or a distorting mirror, they became a moving sequence, following its own laws, of playful flakes, or bizarre or monotonously strict lines; there appeared a recession of changing strokes, white and dark fields, movements of spatial elements. . . . These were contrasted with images of the fireworks . . . in no way comparable to the ravishing sweep of abstract painting that developed in front of us . . . out of a technical, completely mystical mystery. . . . It appears to me dramaturgically possible to develop from this a conscious set of laws . . . that can culminate in the dissolution of the moving, initially representational image. Systematic experiments are needed . . . research into internal laws.22

Eckert’s and Haensel’s positions formed but one piece of a broad, lively debate in 1950s Germany about the artistic potential of television: one that was often informed by the National Socialist past, although not always in ways one might expect; and one that focused on the peculiarities of the medium, although these could lead in opposite directions. This debate set the stage for a number of German and other European artists then venturing into television to explore the medium’s multiplicity of essences. However, in contrast to the strikingly ahistorical views of the two critics, the understandings of these essences developed by the artists were always wrapped up with specific historical meanings—meanings, to be sure, that departed from the association of medium specificity with racial purity laid out by Kriegler and haunting the writings of Eckert and Haensel.

Television began to appear in the writings of Italian artist Lucio Fontana just after he returned to Italy from his wartime home in Argentina in April 1947. At first it did so incidentally, to exemplify the mutual influence of art and science, which he believed occasionally placed artists in anticipation of technological developments. Indeed, from then on (and despite the fact that regular television broadcasting only recommenced in Italy seven years later, at the beginning of 1954, a full year after its German counterpart), the medium that sends light through space played a fundamental role in Fontana’s artistic conception of Spatialism, which centered on a turn from illusionist to actual space.  

Faced with a television medium that was still out of reach, Fontana, like Götz, turned to painting, but unlike the German painter’s largely mimetic strategy, the Italian artist’s profoundly transformed the old medium.

In an unpublished interview also from 1947, Fontana went a step further, claiming an interest in television as a medium for transmitting art: “The artists that call themselves ‘spatial’ want to break with tradition and are occupied with rendering a spatial vision . . . . They even come to conceive art in a form that is so new as to make them think of being able to transmit it by means of television.” That vision gains more certainty and specificity in the second Spatialist manifesto, drafted by Fontana and his peers in March 1948, where it is related to an air-based art that recalls the travel of electromagnetic waves: “An expression of aerial art of one minute is as if it lasted a millennium, an eternity. To this end, with the resources of modern technology, we will make appear in the sky: artificial forms, wonderful rainbows, luminous writings in the sky. We will transmit, on radio and television, artistic expressions of a new type.”

The technologies envisioned for use by this new art of space included broadcast media but also related ones such as radar (certainly without the Spatialists knowing of Götz’s experiments), black light, and neon. This section will probe Fontana’s actual use of the medium; develop its role in his abstraction more broadly, particularly...
with respect to the so-called *buchi* (holes) and the artist's stated interest in space, light, and movement; and consider the historical implications of these findings in the context of early European television art.\(^{25}\)

On May 17, 1952, Fontana and sixteen other artists signed the “Manifesto of the Spatialist Movement for Television.” “For the first time anywhere,” it opens enthusiastically, “we Spatialists are transmitting, through the medium of television, our new forms of art, which are based on the concepts of space.” If their phrasing had conspicuously shifted from the future to the present tense, this befitted their young medium of choice, for it embodied pure “presentness” and a penchant for live, unrecorded broadcasting. Such wording also retroactively gives the impression of a text performed live, or at the very least written to be read live.\(^{26}\) Opinions on whether any Spatialist transmission ever took place have differed and remain speculative. Circumstantial information suggests, however, that something was in fact produced, but it was only sent with a limited in-house range that would run counter to our understanding of the English “broadcasting,” although not to the Italian *trasmettere*, or “transmitting,” chosen by the Spatialists and literally meaning to “send through,” a term that resonates more specifically with Fontana’s abstract painting.\(^{27}\)

Once the state-owned television station RAI (*Radiotelevisione Italiana*) had emerged from the wartime EIAR (*Ente Italiano Audizioni Radiofoniche*), it gradually set up a nationwide network and conducted a series of regular experimental transmissions or tests “to train artistic and technical personnel.”\(^{28}\) Because these took place between May 1952 and January 3, 1954—the day RAI began full-scale public broadcasting—it would make sense historically if the Spatialists’ transmission was part of these experiments, falling as it did at the very beginning of this phase. It would also make sense conceptually in light of the experimental nature of their


\(^{27}\) RAI recordings are currently being archived. No recording of the Spatialist transmission has been found as of the writing of this essay; that does not mean that none took place, since at the time television recording was technically difficult and sporadic across Europe.

art—Fontana, after all, referred to himself as “an explorer.”\textsuperscript{29} For a brief moment, artistic and technical experimentation were one. Moreover, the architect Luigi Moretti, in a 1953 essay that hailed Italian television as a platform for the arts, reproduced examples of RAI’s experimental transmissions up to that point, including a studio production of \textit{Macbeth}, a show covering famous jewelry, and, most importantly, two “luminous images in movement” by Fontana.\textsuperscript{30} The photographs are stills of moving light being filtered, at least in one case, through one of the \textit{buchi}, Fontana’s signature works initially made from paper and then from canvas, respectively pierced from front and back with a stylus to create punctured surfaces. It appears that the one \textit{buco} partially visible must have been handled like a screen to animate light in space and to project it onto a wall. This surely is the “new aesthetics” of “luminous forms crossing through space” that Fontana had called for the year prior in his Technical Manifesto of Spatialism. These spots and trails of light in frozen motion are likely the remains of a flickering, abstract light show that was part of Fontana and his peers’ Spatialist transmission.\textsuperscript{31}

Far from the simulacrum we experience today, television for Fontana was intimately related to his call for an art of actual space, movement, and light. As the television manifesto stated, “Television, for us, is a medium that we have been waiting for to integrate our concepts,” for it best allows art to exist in and as space: “Our artistic expressions multiply the horizon lines to infinity, in infinite dimensions.”\textsuperscript{32} Although Fontana never returned to television per se, his artistic conceptualization of television as a medium that causes light to travel

\textsuperscript{29} Fontana, in “The last interview given by Fontana: selections from a conversation with Lucio Fontana recorded by Tommaso Trini on the 19th July, 1968, one and a half months before his death,” \textit{Studio International} 184, no. 949 (1972), p. 164. Fontana adds that he “lived during a period of fruitful exploration”; he also recounts that he “did the Manifesto on television” but that “they didn’t let me do it. . . . Television did not understand, they rejected our idea. Only the Manifesto remains.” Fontana perhaps refers to the fact that the project was never repeated for broader public broadcasting, as desired in the manifesto. Ibid.


\textsuperscript{32} Fontana et al., “Manifesto del movimento spaziale per la televisione.” In a 1952 chronology of his career, Fontana relates the 1946 “Manifiesto Blanco,” which students in Argentina had drafted under his direction, to the “development of artistic means, light, neon, television”—although, in fact, television had appeared in Fontana’s writings only following his return to Italy. Fontana, “Perché sono Spaziale” (1952), reprinted in \textit{Zero Italian}, p. 106; Bernardo Arias, Horacio Cazenueve, Marcos Fridman, Pablo Arias, Rodolfo Burgos, Enrique Benito, César Bernal, Luis Coll, Alfredo Hansen, Jorge Rocamonte, “Manifiesto Blanco” (1946), translated by Alfred Mac Adam in \textit{Italian Metamorphosis}, pp. 709–11.
A page from an article by Luigi Moretti in Spazio 7 (1953), featuring two photographs (ills. 1 and 4) of a Spatialist transmission by Lucio Fontana.
through space apparently inspired, and was realized in, his "buchi," first made around 1949, between the artist's first expressions of interest in television and the Spatialist transmission.

The experimental transmission for RAI sent light both through the buchi and through the internal broadcasting system of the station. Both are consistent with the notion of "transmission" as a "sending through," particularly through an intervening space, figured in the buchi screen and in the walls separating the various monitors presumably used for the tests. The distinction in the television manifesto between "known" and "unknown" and "explored" and "mysterious" spaces, maps onto the palpable space of the pierced opening and the imagined, invisible space traveled by light and electromagnetic waves. Following the television manifesto, transmission is literalized and restricted in scale: first, to installations of the pierced paintings with light flooding through and across them, documented in photographs supervised by Fontana; and second, to the Spatialist environments projecting light into space, whether by way of neon tubing, pierced ceilings with backlit lighting, or fluorescent paint lit by black light (giving off the same phosphorescent glow as the television screen).

This extends Anthony White's argument that Fontana's buchi are closely related to the artist's light environments in that they departed from the traditional "painted canvas" and presented the painting as an object with a front and back, as "a kind of prop, with varying kinds of relationship to incident light," and as "a screen through which to project images." Where the television manifesto somewhat obscurely claims "Our artistic expressions . . . seek an aesthetics in which painting is no longer painting," Fontana and his peers mean that television has reformed, but not replaced, painting.

Following Fontana, who noted that he "escaped symbolically, but also materially, from the prison of the flat surface," implied and literal meanings intertwine when assessing the relevance of Spatialist transmission. To begin with, Fontana's enthusiasm for the conjunction of space and new technologies exemplifies the optimism of the Space and Atomic Age that runs through his writings, and of the era of reconstruction that provided an experience shared across Western Europe. The further relevance of Fontana's television experiments lies in the concept of

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33. Fontana, "The last interview." Fontana also maintains there that his interest in transmitting into space had continued validity "because television remains an unsophisticated medium."

34. Fontana, with his interest in science and modern physics, was likely aware of this. The works are Ambiente nero (1948–49) and the ceilings for the Kursaal Margherita (1953) and the Cinema for the Breda Pavillion at the International Fair in Milan (1953), in Crispolti, Fontana: Catalogo generale, vol. 2 (Milan: Electa, 1986), ills. 48–49 A3, 51–52 A1, 53 A1.

35. White uses the photographs mentioned above and early installations as evidence, counting the photograph in Spazio as part of the latter. White, dissertation, pp. 301ff., 319, 323ff. For additional contemporary photographs of the buchi with related effects, see Agnoldomenico Pica, Lucio Fontana e lo Spazialismo (Venice: Cavallino, 1953); and Domus 284 (1953).

36. The first Spatialist manifesto likewise posited dialectically that "nothing of the past will be destroyed, neither means nor ends; we are convinced that people will continue to paint and sculpt." Fontana et al., "Primo manifesto spaziale," p. 713; translation slightly modified.

37. Fontana, "The last interview."
transmission “from Italy”—as the television manifesto stresses explicitly—placing the implied destination beyond Italian borders. “I wanted to have an exhibition simultaneously in New York, Milan, Berlin, the whole world over, to transmit forms,” Fontana explained in retrospect. “We wanted to transmit simultaneously all over the world a statement, some kind of gesture, to demonstrate that the whole world was simultaneously aware of a single thought.” At a moment when New York was busy stealing the idea of modern art, European artists like Fontana turned to television as a means of reaching beyond national isolation and of forging international connections. These connections were both imagined and real, for Fontana would soon join a trans-European artistic dialogue that included the German Zero group, whose core members—Heinz Mack, Otto Piene, and Günther Uecker—would turn to television to the same end.

During his formative time in West Germany from late 1956 to mid-1963, the Korean-born Paik worked at a similar intersection of international artistic practices—in this case the transatlantic Fluxus movement. However, he was interested in television not as a means of broadcasting and reaching out, but rather, in affinity with Götz, as a way of creating electronic pictures. Paik was intrigued that Götz lamented that “one could unfortunately neither control, nor fix” the radar images he had produced. “FIX! . . . that word hit me like lightning,” Paik comments with characteristic exuberance in his Galerie Parnass text. “Yes—then it must be the most fitting means to deal with indeterminism (today the central problem in ethics and aesthetics, perhaps also in physics and the economy [see the recent polemic between Erhard and Hallstein]). Therein lies the foundational concept of my television experiments.” Götz was more interested in indeterminacy than Paik lets on, but the Informel “tension of chance and intention” resulted from aesthetic (and perhaps ethical) concerns, whereas Paik states explicitly that his pursuit of indeterminacy was more decisive and culturally, as well as aesthetically, determined. That conjunction, I would argue, lies at the core of Paik’s first television installation and results from its particular place in television art’s abstract origins. While Götz’s and Fontana’s experiments with the medium during the 1940s and ’50s predated the widening presence of television in the European public eye,

38. Ibid. For Space and Atomic Age references, see Fontana’s letter to Giani. Compare to Whitfield, pp. 44–46.
39. German exhibitions of Fontana’s work include Documenta 2, June 11–October 11, 1959, and a solo show at Galerie Schmela, Dusseldorf, which opened on January 29, 1960. He was grouped with Zero in, for example, Monochrome Malerei, Museum Morsbroich, Leverkusen, March 18–May 8, 1960; an exhibition at Galerie dato, Frankfurt, 1961; and Zero Edition at Schmela, 1961, to be discussed later. 
40. Nam June Paik, untitled text, brackets in the original. Ludwig Erhard served as West German economic minister during the reconstruction and economic miracle, and he became chancellor in late 1963. His liberal policies toward Eastern European states conflicted with the Hallstein Doctrine, which was established in 1955 by foreign policy counsel Walter Hallstein and ceased diplomatic relations with countries that recognized the GDR.
Paik’s *Exposition of Music—Electronic Television*, held from March 11 to 20, 1963, took place at a time when television—though still a new artistic medium—was gathering cultural ground even on the technologically delayed continent.

Paik’s *Exposition* took over the entire Wilhelminian villa where the architect Rolf Jährling simultaneously lived, housed his practice, and operated the Galerie Parnass. From basement to bathrooms, Paik had filled the entire property primarily with installations for producing sounds by means of prepared pianos and “sound objects.” The *Electronic Television* component represented a relatively small portion of the exhibition and included a group of television sets, most likely eleven, in the garden room, with one placed on a console and others on the floor, and a twelfth set upstairs. The largely abstract, black-and-white distortions, with only rarely recognizable fragments of programs broadcast on the running televisions, resulted from manipulations to the sets’ circuitries.\(^{41}\) As recalled by Fluxus artist Tomas Schmit, who helped Paik install at Parnass, the visual effects included inversions of the picture, such as one “quasi-rolled together into a cylinder around the central vertical axis” and another around a horizontal axis; patterns such as sharp-edged stripes, hazy bars (entitled *Kuba TV*), and a “continuous dot firework”; and singular shapes such as a central dot changing size (*One Point TV*, located upstairs) and a static, white line running vertically across a black screen (*Zen for TV*). This last effect resulted from damage to the set during transportation. Another, Paik claimed, broke completely and was placed on the floor face down so that, as Schmit noted, it “showed its program to the parquet” (later entitled *Rembrandt-Automatic*).\(^{42}\) That echoes the mirrors Paik placed on the floor in front of some sets so that they effectively showed their electronic creations to themselves.

“No Two [sic] sets had the same kind of technical operation. Not one is the simple blur, which occurs, when you turn the vertical and horizontal control-button at home,” Paik proudly recalled a year later, suggesting that formal creativity from within sameness was important to him. Notably, all sets were tuned to the same—Germany’s only—station; the country’s second, ZDF (*Zweites Deutsches Fernsehen*), would begin broadcasting several weeks later, on April 1, 1963. Paik was disappointed with sensationalist critics who focused merely on the freshly

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42. Schmit, pp. 69–70.
slaughtered bull’s head installed over the entrance door, and he asserted that perceptual nuances mattered more: “May-be [sic] one needs 10 years to be able to perceive delicate difference [sic] of 15 [sic] different ‘distortions’ (?).”

The indeterminacy that Paik pursued was twofold. First, indeterminate experimentation was channeled into self-reflexive exploration of the artistic potential of the television medium. In most of his interventions, Paik self-reflexively turned televusual form in on itself, metaphorically and literally, as he rolled up figurative pictures into abstract ones, visualized the cathode ray tube scanning the screen line by line, reduced the picture to glowing dots and shades of mere light, showed the TV’s image to itself, and produced moving images that were “live” and immediate. Second, following Schmit’s description of the internal manipulations as “halfway fixed,” it is fair to say that Paik’s indeterminacy—as in his dependence on the TV program and incorporation of actual accidents—was shaped, and that change, in the form of moving images, was planned. Paik’s aesthetic thus relates to Götz’s conception of Informel (the “tension of chance and intention”) as a means of overcoming subjective expression, giving full traction to one critic’s characterization of Paik’s televisions as “Götzian” and rendering porous common divisions between Informel and Fluxus.

43. “Don’t expect from my TV: Shock., Expressionism., Romanticism., Climax., Surprise., etc…… for which my previous compositions had the honor to be praised. In Galerie Parnass, one bull’s head made more sensation than 13 [sic] TV sets.” Paik, “afterlude.” Despite his studies of electronic music, Paik likely had the help of technicians to achieve this range of effects, although Götz is the only one to recall that. Götz: Erinnerungen und Werk, vol. 1b, p. 970.

44. Schmit, p. 69; and John Anthony Thwaites, “Der Philosoph und die Katze: Nam June Paik in der Galerie Parnass in Wuppertal,” Deutsche Zeitung 84 (April 9, 1963). Paik eventually developed the role of subjectivity in dialogue with psychedelic protest; see David Joselit, Feedback: Television against Democracy (Cambridge: MIT, 2007), pp. 43–83. While Paik began to separate from Fluxus (as in his rejection of shock), Fluxus and certain strands of Informel both pursued experimentation and indeterminacy, if in different media and differently received—one as subjectivist, affirmative, and aesthetic, the other as anti-subjective, negational, and anti-aesthetic. See Andreas Huyssen, “Back to the Future:
In Paik’s hands, this aesthetic nature of television met its growing cultural role, as suggested most explicitly in the artist’s discussion of the broader relevance of indeterminacy, and of the exhibition as time-art (Zeit-Kunst). It is significant in this regard that the Galerie Parnass manipulations resulted either from internal electronic changes or from external sources connected to the sets’ circuitries—a radio, a foot switch, a microphone, and a tape recorder—with some of these to be manipulated by visitors. Indeed, unlike Götz and Fontana, Paik contextualized his electronic pictures on various levels. Here, at last, are actual television sets. Paik’s abstractions are framed in bulky boxes of varying orientations: two are stacked and others are strewn across the regularly patterned parquet floor among all sorts of stuff—chairs, paper, cables, bottles. These televisions are taking over: their different visual manipulations individualize them; they sit on the floor facing one another as if in conversation; mirror images multiply their already large number even further; and the limited range of manipulations keeps viewer participation in check.

Significantly, Paik’s exhibition took place in a home with consoles and chairs, with decorative paneling and pictures on the walls, at a moment when the private home increasingly became television’s home—in contrast to the bars and shop windows that, even through the late 1950s, were the sites where many Europeans went to watch. In 1956, when Paik arrived in Germany and Götz was struggling for access to television, only four percent of the West German population watched television on their own sets; in 1963, the year of the Galerie Parnass show, that number had increased to fifty percent.

Television programming, restricted to the evenings, also framed and dictated the Exposition’s opening hours, from 7:30 to 9:30 P.M. Finally, in contrast to Fontana’s vision of reaching out to the world, Paik introduced the world that television brings to us, infiltrating this villa in provincial Wuppertal with international news despite his largely abstract imagery. For example, the title Kuba TV recalled the Cuban Missile Crisis that had ended just four months prior.

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46. Schmit, p. 69.
when Paik was already working on the *Exposition*; and the segment upstairs, “Memories of the Twentieth Century,” featured international press reports and photographs of Marilyn Monroe’s death.\(^{48}\) If indeterminacy had broader historical relevance for Paik, it lay in the opportunity indeterminacy provided to intervene at the site of reception for this gathering power of television, most poignantly at a moment when the German viewer had no choice whatsoever of what to watch. Critics came away from the *Exposition* describing Paik’s electronic pictures as interferences that ran counter to the expectations of “program directors and television creators.”\(^{49}\) Taken by themselves, such observations may seem simplistic, but they gain historical traction in dialogue with indeterminacy and self-reflexivity on an aesthetic level: Paik negotiated the aesthetic and cultural implications of televisual indeterminacy at a moment when artists were still learning the basics of a medium that was rapidly becoming all too familiar to everyone else.

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**Crazy Vision, Auto Vision**

Swiss painter and graphic designer Karl Gerstner has said that he did not know of Paik’s *Exposition* when he ventured into television art with *Crazy Vision*—an installation for the 1964 *International Gag-Festival* at Berlin’s Kulturzentrum, Haus am Lützowplatz—its title taken from a vaudeville show performed at the festival.\(^{50}\) In a darkened room, Gerstner installed twelve televisions aligned horizontally at eye height and set into two adjacent “false” walls so as to conceal their casings and reveal only their screens. Gerstner then mounted on each monitor display a different “lunette”—a lens or “glasses” as he also called them—that he had made mainly from various kinds of glass or Plexiglas. Based on their different patterns and shapes, these distorted or filtered the running television programs behind them into moving, flickering abstractions. The lunettes included a round spiral shape specially fabricated from Plexiglas, a standard manufactured

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\(^{48}\) A letter from November 1962 outlines the program of the exhibition but does not mention television yet. Paik, letter to Jährling, November 13, 1961, Bestand Jährling/Parnass, ZADIK, A5 VIII. For more on Fluxus chance and the nuclear threat, see Huysen, p. 149. In an undated letter to John Cage from 1959 or 1960 and thus Paik’s first recorded mention of television, he thinks of it in terms of the world and of popular culture in the context of a composition. “Colour Projector. Film 2-3 screens. Striptease, boxer, hen (alive), 6 years girl. [sic] light-piano. and of course sounds. -> one TV, motorcycle // ‘whole art’ in the meaning of Mr. R. Wagner.” John Cage Archive, Northwestern University Music Library. The exhibition’s American iconography also betrays that Paik already knew he would be visiting the United States; Jean-Pierre Wilhelm, letter to Rolf Jährling, February 24, 1963, Bestand Jährling/Parnass, ZADIK A5 VIII 193.


\(^{50}\) I have been unable to confirm Gerstner’s recollection of the exhibition title *Crazy Berlin: International Gag-Festival*. Gerstner, interview with author, Basel, June 18, 2007. Irene Hammer-Kraberg, widow of the exhibition’s curator, recalled the vaudeville by Wolfgang Neuss in conversation with my research assistant, Philipp Ekardt, Berlin, December 8, 2007.
Riffelglas (ripple glass) with a waved surface mapped onto a grid, a set of seven vertical Plexiglas cylinders forming a continuous surface, a kaleidoscope-like box of considerable depth jutting out from the wall, and a black plane with a cutout revealing an x-shaped fragment of the broadcast image. A lunette made from a metal sheet, which was included in the Berlin venue but not in subsequent versions, consisted of a spiral that turned in such a way as to reveal only a third of the screen at any given point. A thirteenth television set was placed in the facing corner of the room with neither lunette nor false wall in front, simply playing whatever program was being broadcast.51

The Haus am Lützowplatz had been founded two years earlier by a Kulturverein close to the SPD (Sozialdemokratische Partei Deutschlands) and was run

by Konrad Jule Hammer, cultural associate of Berlin’s Social Democratic mayor Willy Brandt. Gerstner recalls that the exhibition was entrenched in historical circumstances and was part of the SPD’s effort to deflate the attraction for left-leaning artists of the German Democratic Republic, which three years prior had erected the Wall. The exhibition’s mission was to “show what freedom meant, to radiate it outward [nach aussen strahlen, reminiscent of ausstrahlen, meaning broadcasting], the freedom in the West to the East.” As an artist from neutral Switzerland, Gerstner was highly conscious of Berlin’s status as an “enclave during the Cold War” when traveling to exhibit at the Haus am Lützowplatz: first for a solo show with a range of abstract paintings in late 1963, then for the Gag-Festival. In line with the show’s mission, Crazy Vision originated from Gerstner’s desire to demonstrate “the freedom of art; to say, ‘Here, this is freedom.’” In that sense, Gerstner’s televisual abstraction was—unlike that of Götz—in keeping with the rhetoric of abstraction as a cultural “weapon” in the Cold War, although, paradoxically, he did not utilize television’s capability to send its electromagnetic waves through the wall and to broadcast (ausstrahlen) his abstraction. Nevertheless the artist gave this familiar line of thinking a dialectical twist. Especially with the contrast of the thirteenth, unaltered television set, and in moments when the programming was partially recognizable, Crazy Vision’s abstraction, while connoting freedom, perpetually performed an act of erasure reminiscent of censorship, for the lunettes occluded the very Western news and entertainment from which the GDR constantly worked to sever itself.

Gerstner’s abstract television, then, is cultural, even political, although unlike Paik, he did not anchor these dimensions in the creation and presentation of his work, relying instead on a more elusive institutional and geographical context. Like Paik, Gerstner intertwined this cultural aspect with an aesthetic, formal approach to the televisual picture by distorting “found” live broadcasting. Likewise, he was uninterested in producing something to be broadcast: “I was not concerned with the transmission of programs,” he stresses, “but with the creation of an alternative.” However, while Paik explored the new medium’s essence, what

52. All artists’ quotes from Gerstner, interview. My research did not reveal more information about the exhibition’s agenda. Neither the Haus am Lützowplatz (HaL) nor the Hammer Archiv have checklists, but names in the press coverage in the latter include Jim Dine, who had been invited but declined, and Winfred Gaul and Daniel Spoerri, who did take part. Gfeller lists Robert Filliou, Timm Ulrichs, Toni Ungerer, and others. Gerstner recalls Paik’s Robot K 456 (1964) was included, but I have not found any evidence of this. Gerstner’s solo exhibition, held November to December 1963 and documented in HaL’s archive, did not include any work with television, which the artist likely would have included had it already existed. Although for reasons of funding and publicity the exhibition had been postponed from February to September to coincide with the Berliner Festwochen, the 1962 or 1963 dates given by Gfeller seem doubtful; Gfeller, p. 225. Yule Heibel developed for the German context the Cold War argument advanced by Serge Guilbaut for the U.S. in her Reconstructing the Subject: Modernist Painting in Western Germany, 1945–50 (Princeton: Princeton University Press, 1995); Sigrid Ruby contested the argument in her “Have We an American art?” Präsentation und Rezeption amerikanischer Malerei im Westdeutschland und Westeuropa der Nachkriegszeit (Weimar: VDG, 1999).

53. Gerstner, interview. Despite such conceptual affinities, Gerstner’s independence from Paik need not be questioned, for the latter’s Exposition initially remained little known. Neither did Gerstner’s circles and interests intersect with Paik’s; they included the French GRAV (Groupe de Recherche d’Art Visuel)
literally and conceptually constituted it, Gerstner literally and conceptually stayed on its surface. The lunettes were applied to, and doubled, the screen from the outside, and his televisions functioned simply as boxes of moving light, conveniently replacing the light boxes he had built for the so-called lens pictures that preceded *Crazy Vision* and utilized lenses similar to the lunettes. Gerstner notably intended to build the false wall precisely “so that the whole thing looks like a proper, quite normal exhibition with proper pictures on the walls. That’s also why I will make the glasses in different sizes, perhaps from different materials,” he explained in a letter outlining his plans to Hammer. As such, Gerstner effectively blinded himself and his viewers to television rather than revealing it. He knew television only “from relatives and a friend in the television business” and aimed at “creating his own vision from the creative imbecility of television.” Even a critical attitude, based, after all, on some form of engagement, “was at best subliminal,” he says today, although at least one reviewer recommended *Crazy Vision* “as a therapy against television addiction.”

A follow-up work was entitled *Auto Vision* (1964), which Gerstner described as a kind of “best of” the Berlin exhibition. One of six lenses available at the installation could be placed in front of a single television encased in a simple box on a stand. Gerstner explains the title as an “inversion of ‘television’”—as television watching itself. With the absence of the unaltered set, which the artist regretted using because it became the primary focus of attention in *Crazy Vision*, the television in Gerstner’s second version became completely severed from its cultural use and effects. Consequently, while Paik turned television into a life’s work, for Gerstner it became a dead end. He never returned to it.

**Zero (on) TV**

On the evening of May 16, 1962, close to 1,000 visitors gathered on the Rhine meadows in Dusseldorf for *Zero Fest*, which had been organized by the three core artists of a collective founded in 1957 around the notion of a new start after

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54. Gerstner, letter to Hammer.


56. Gerstner, interview. Asked about ending the work so quickly, Gerstner responded: “For what I wanted to realize, I would have had to become a technician.” Ibid. While the first two versions of this work relied on black-and-white broadcasting, a third in 1967 switched to color, which had been introduced that year. Descriptions based on Gerstner, interview; Gfeller, p. 225; and Gerstner, *Review of Seven Chapters*, p. 141. The second version was exhibited in Galerie Der Spiegel, Cologne, 1966, a light exhibition in Recklinghausen, 1967, the traveling exhibition *D’Fründ*, 1969, Kunsthalle Bern and Kunsthalle Dusseldorf, and the Galerie Swart, Amsterdam, 1970; cf. loan document for exhibition *STRATEGY: GET ARTS* at the Edinburgh College of Art, Edinburgh 1970 Files, IV 32966, Stadtarchiv Dusseldorf.
the war: the Zero Group. Their aesthetic interest in light, initially articulated in textured monochrome paintings and followed by reliefs and kinetic sculptures made from industrial materials, had recently led them to create installations and performances as exemplified by Zero Fest: Otto Piene launched clusters of balloons assisted by uninitiated participants and by so-called Zero ladies, dressed in black costumes with white zeros and blowing soap bubbles; Günther Uecker painted a white zone, Weisse Zone, on the ground and installed pieces of white fabric to blow like sails; Heinz Mack suspended aluminum flags from laundry lines to crackle in the wind.\textsuperscript{57} “The six-hour mammoth demonstration . . . was devised, conceived, and carried out entirely for the purpose of television recording,” recalls Gerd Winkler, a journalist at the Frankfurt-based Hessischer Rundfunk (HR).\textsuperscript{58} Winkler had convinced the artists to effectively restage their happening ZERO, Edition, Exposition, Demonstration, which had marked the opening of the eponymous exhibition on July 5, 1961, at Düsseldorf’s Galerie Schmela, so that it could be filmed for his feature 0x0=Kunst, broadcast on June 27, 1962, at 9:05 p.m., on Germany’s first (and, at the time, only) television program ARD (Allgemeine Rundfunkanstalten Deutschlands, a conglomerate of regional producers such as the HR). Winkler’s boss had directed him “not to take this stuff too seriously. No identification! An ironic feuilleton, based on a distanced documentary mode,” and the film largely followed that directive—the Zero Fest footage was shrunk in the 33-minute coverage of a wide nexus of European artists loosely affiliated with the German trio.\textsuperscript{59} Yet 0x0=Kunst exceeded a pure documentation as it became both an advertisement for Zero and, at least in brief moments, verged on becoming Zero art itself—nearly shifting from Zero on television to Zero television. This, in turn, was consistent with the televisual character of the Zero Fest, and, by extension, as we will see, of Zero more broadly speaking.

Not only did the collective nature of the Zero Fest echo the teamwork of

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\textsuperscript{58} Gerd Winkler, “When the avant-garde becomes classics” (1969), reprinted in ZERO aus Deutschland, p. 71. Born in 1929, Winkler had studied for six semesters at the Institut für Film und Fernsehen in Munich and built his reputation with films on contemporary art. Winkler, Kunstwetterlage (Stuttgart: Belser, 1973).

\textsuperscript{59} Gerd Winkler, “0x0 gleich Kunst” (1962), reprinted in ZERO aus Deutschland, p. 252. Heinz Mack kindly made the film available to me. Television was also present for the Schmela event, as suggested by reviews and by the strong contrasts in photographs, which exceed what street and store illuminations could have produced. Horst Richter, “Kunststunde Null,” Kölner Stadtanzeiger (July 11, 1961); Helmut de Haar, “Tricks und Techniken des Dada,” Die Welt (July 25, 1961); sw, “Unternehmen Zero,” Düsseldorfer Nachrichten (July 7, 1961). Uecker recalls that police initially forbade painting on the street, but then allowed it “because television came, because the presence of television was actually the respected, important event.” “Günther Uecker im Gespräch mit Karl Ruhrberg,” in Zeitzeichen: Stationen Bildender Kunst in Nordrhein-Westfalen, exh. cat. (Cologne: DuMont, 1989), p. 154. It remains unclear whether anything was ever broadcast. Photographs of the event do not show television equipment or teams; Galerie Schmela Papers, GRI Special Collections, Box 25 F15. Photograph no. 89 shows Schmela operating a camera.
television production, space and light were central to both. The space on the Rhine meadows was more expansive than the narrow street in Dusseldorf’s Altstadt where the original event had taken place, allowing multiple cameras to pursue multiple angles. If white sails and aluminum flags blew in the wind and party balloons and soap bubbles traversed space to render it visible, they resonated with electromagnetic waves imperceptibly traveling distances to create palpable images. Likewise, the shiny surfaces of balloons, bubbles, and aluminum reflected light—that essential component of the TV screen—and gave it concrete shape, albeit in non-electronic fashion. Sharp contrasts of light and dark—white writing on black, white paint on the dark ground, white fabric against the night sky—defined the festive palette. The event was scheduled for the evening to draw crowds but also to enhance these contrasts (rather than to coincide with broadcasting times, as in Paik’s case, for it was not a live event).

As he grew interested in making films that simultaneously followed the laws of television and of the art he was covering, then, Winkler found his perfect subject in the Zero Fest. Mack, Piene, and Uecker featured in his list of “television-show artists” [Fernsehschaukünstler] who consider “television-specific” traits and “play with the medium and do not think about art needing to hang on the walls, but about art intended for broadcast on the television screen.” To that end, he noted, “in almost all objects, black-and-white effects, light-shadow values, counted. Much was kinetic, some was spectacular.” When Mack “for the first time saw one of his rotors filmed in detail—three centimeters tall in reality [but] forty centimeters on the screen—he could hardly contain himself he was so excited. He found that only now did his objects properly come to the fore.” These, in fact, are the aspects Winkler kept bringing back throughout 0x0=Kunst, as he ostensibly “documented” Zero art beyond the happening: close-ups of turning metal sheets and flickering reflective patterns that dramatically filled the television screen and revealed its composition out of glowing or non-glowing phosphor—for limited but defining moments collapsing filmed object and filming medium. As television’s qualities mapped onto Zero art, Winkler in turn became a sort of Zero artist, following Uecker’s facetious demand that he “become and stay Zero” himself in order to produce the film. In subsequent Zero exhibitions, 0x0=Kunst took its place alongside Zero art.


Many of these televisual qualities had defined Zero art since its inception—particularly space and light—and collaborative production moved into the foreground in objects such as the Light Mills that the Zero trio would soon make together.63 Some previous work was in explicit dialogue with specific components of television—for example, the last issue of the Zero journal, which juxtaposed a spiraling Mack detail with a radar screen; Mack’s 1960 wall painting, which was made from phosphorescent paint; and Piene’s Frequenz and Raster paintings from the late 1950s, in which “relief-like protrusions reminiscent of electron paths,” as one critic had it, animated natural or electric light reflections.64 More profoundly, Zero’s simultaneous pursuit of materiality and immateriality—by concretizing space and light, or by using new technologies and industrial materials to suggest a vague sense of transcendence and idealism—matches television’s simultaneous presence and absence, its physical hardware box framing an evanescent picture, and its offering of actual live events viewed in spatially distanced reproduction.65 Moreover, Zero’s and television’s joint negotiations of such dualities echoed the context of the so-called Wirtschaftswunder within which both came into being. That “miraculous” economic boom—which from the mid-1950s through the 1960s resurrected West Germany from the rubbles of the war and reconnected it to an international (Western) community—effectively caused citizens to negotiate an unfathomable turn from nothingness to their current plenitude, and to balance the unprecedented acquisitions of material goods with skepticism about the miracle’s longevity, and a blind optimistic spirit with concerns for human values.66

66. On Germans’ ambivalence, see Adorno, “What Does Coming to Terms with the Past Mean?”
Winkler. Stills with screen fills from 0x0=Kunst. 1962.
As economic growth brought more and more televisions into people’s homes, it gradually transformed the nature of television and of television art in Europe: the medium without content, which had allowed artists to map various aspects of its essence onto a range of contextual concerns, was growing into a cultural force. It was a transformation addressed in Paik’s *Exposition* but also central to Winkler’s film. The idea for *0x0=Kunst*, which would become Winkler’s first in a series of art features, had been suggested to him by Zero dealer Rochus Kowallek, who prior to opening his gallery dato had worked under Winkler and covered the group on HR radio to make up for its exclusion from *Documenta* 2 in 1959. As is well known, television’s defining potential to “broadcast,” to reach an infinitely large audience, made it highly useful for advertising. Since this need not always be of the corporate kind, it only made sense that Kowallek, invested in increasing the audience and market for his artists, lobbied Winkler. In part due to his HR background, the Frankfurt-based dealer intensely cultivated press relations and was intellectually committed to a broad outreach. In a letter to Mack, Kowallek suggestively talks of populating major West German cities with new artistic expressions in order to “realize a confrontation of individual artistic situations with the audience . . . radiating across the whole area” (similar to Gerstner, Kowallek uses the term *ausstrahlen*, the literal meaning of which is “radiating”). The Zero artists themselves were not uninterested in self-promotion. It made sense that they agreed to repeat *Zero Fest*: filmic recordings presented the most suitable means of preserving the inherently transient performances that were so much a part of the peak Zero years and that were themselves staged as a sort of advertisement.

Moving *Zero Fest* to the Rhine meadows also meant that both the artists and Winkler were counting on the popular (and national) associations of the new location to draw an audience. In general, the Zero artists were known to work “with determination and skill to achieve their enormous media presence” and the omnipresence of the Zero name and the *0* logo in exhibitions, performances, and publications effectively functioned as a kind of branding.


69. Renate Wiehager, “The ZERO spirit: action, demonstration and teamwork,” in *ZERO aus Deutschland*, p. 24. Eleanor Atwood-Gibson, a doctoral candidate at Yale University, has been developing
Competition with American art then flooding the market surely shaped these strategies, which went hand in hand with efforts to build a continental avant-garde network and a Zero movement across Europe. These conditions had intensified significantly since Fontana had first envisioned the use of television to address them. Less than a decade later, as television had established itself in Europe but still remained relatively open to artistic experimentation, the Zero artists were able to realize more fully the prescient vision of an artist they deeply admired, although reportedly without knowing about his plans. Moreover, Kowallek and the
Zero artists’ thinking mirrored recent developments within West German public television that were still far in the future when Fontana worked at RAI. Beginning with the Bayerischer Rundfunk (BR) on November 3, 1956, one regional producer after another introduced advertising to supplement income from subscriber fees. Although by contemporary American standards its presence was limited—in 1963, the ZDF screened no more than three five-minute segments of ads daily, all clustered in the prime time hour of 7 to 8 P.M.—advertising was nevertheless becoming a staple of West German television. That said, while Zero art in the course of the 1960s became extremely popular, at least on the rising West German art market, 0x0=Kunst was decisively not. Its title was reportedly transformed into the “battle cry ‘0x0=German television,’” a pun meant to suggest that German television, and its production of the film, were of zero value; the twenty-one per cent of the television audience that was willing to “stay tuned” rated it -3 on a scale from +10 to -10.

Deluge of the Nails to Black Gate Cologne

Uecker was the first of the three Zeroists to continue individual work with television. He did so following the same dualities established in early Zero art, but setting them more explicitly against the backdrop of the economic miracle. For his exhibition Deluge of the Nails (Sintflut der Nägel) on view from September 13 to October 26, 1963, at Frankfurt’s Galerie d (Kowallek’s successor to Galerie dato), Uecker’s signature nails cascaded across portions of various furniture, including a table, a nightstand, an ironing board, a chair, a radio, and a television set. Winkler struck again. In conjunction with the on-site production of the exhibited works and in collaboration with Uecker, the journalist shot a three-minute segment for HR of the artist shopping for a brand-new television, hammering nails all over it and other household objects, and spraying paint on them.

73. Uecker’s first exhibition of nailed household items, which opened January 11, 1963, at Galerie Schmela, apparently did not include a television; d.w. “Uecckers Nagelkissen: Eine Ausstellung bei Schmela,” Düsseldorfer Nachrichten, January 29, 1963. The segment was broadcast on the local news program Hessenschau, date and time unknown; Uecker, interview. Uecker kindly made the film available to me. Winkler claims the idea to nail a television stemmed from him; Winkler, “Beziehungen zwischen filmischer Dokumentation,” p. 37. Winkler also stressed that the purchase of the television was part of the art; Winkler “Die-Günther-Uecker-Story,” Kunst 8/9 (1965), p. 163. Uecker does not dispute this but calls the film and exhibition an “interlude.” A documentary segment about Uecker’s subsequent
Uecker made four additional nailed television sculptures, but this first version’s contexts of broadcast and exhibition highlight their implications. To begin with, there is the sizeable physical box that Uecker, as we see in the film, could just barely carry, a raw and expensive commodity among other household objects that, whether or not it was actually running, critics clearly understood as a middle-class status symbol of a booming economy, thereby going a step further than Paik’s televisions scattered around an upper-class villa half a year earlier. These same critics fittingly stressed Uecker’s diligence and hard work, recalling so many busy Germans who made the miracle happen.\textsuperscript{74} One of the two short stories read by artist Bazon Brock during the exhibition as Uecker “nailed up” the manuscript suitably tells of a “fat man,” a car pileup, and other excesses.\textsuperscript{75} To the same effect, Uecker chose for the film’s background music a contemporary pop hit that reportedly happened to be playing at the store when he bought the television. Billy Mo’s “Ich kauf mir lieber einen Tirolerhut” (‘I’d rather buy myself a Tyrolian Hat’) celebrates the light-hearted consumption of a traditional item of Austrian clothing—rather out of place on the black Trinidadian musician pictured on the record cover—over his “hard life” in the military, a sentiment that resonated with the economic miracle’s wiping out of the National Socialist past. Yet an element of critique is built into these framing devices, for Mo’s song opens with a man from Las Vegas tempting him with false promises of wealth, and the second text read by Brock recounts a trial that, with its suggestions about the responsibilities of an nailing of a piano in a music store was covered on television. Clipping from \textit{Stadtnachrichten} (Gelsenkirchen), April 4, 1964, in Uecker’s studio archive, Dusseldorf.

\textsuperscript{74} The other versions can be found in Dieter Honisch, \textit{Uecker} (1983; New York: Abrams, 1986), pp. 76, 194, 207. The respective titles are \textit{Nails on TV Case} (1963), ill. 346; \textit{TV on Table} (1963), ill. 348; \textit{TV} (1966), ill. 492; and \textit{TV for Film 1957–1977} (1977), ill. 955. Uecker noted in my interview that televisions were still expensive, “a worker’s monthly income.” There is conflicting information as to whether this and other nailed televisions were playing when exhibited. Uecker recalls they showed whatever program happened to be on and specifically mentions a soccer match, and Winkler reports they were surprised the television still worked (Winkler, “Uecker-Story,” p. 163). However, the film does not show the TV playing, nor do the many reviews of the exhibition mention it, and a photograph of a different version features the caption “Might it still be working, that nailed television set?” P. K., “Nägel als ‘Kunststoff,’” \textit{Buersche Morgenzeitung}. Easter, 1964. Some photographs do show the cord running away from the sets. A follow-up 1966 version is listed in the catalogue raisonné as “functioning.” Critics seem to have the economic miracle and middle-class pride in mind when they refer to the “chattels of the proper home,” the \textit{Kaffeehaustisch}, \textit{a Tischlein Deck Dich} mentality, and Uecker’s nailing of a piano in an “economic miracle shopping window.” Cited in order from hr, “Marsch der Nägel,” \textit{Frankfurter Rundschau}, September 27, 1963; A. K., “Seine Arbeiten werden die eines Poeten sein,” \textit{Gelsenkirchner Blätter} (March 1964); miscellaneous reviews from the Kestner-Gesellschaft, Hanover, exhibition collected in Uecker’s studio archive, Akte IA 1965–66; and Hans Joachim Langner, “Feierabend-Vorschuss auf das Jahr 2000,” \textit{NRZ am Sonntag}, January 28, 1968. For Uecker’s work style, see Ekkehart Reinke, “Die Milch ist rund!” \textit{Berliner Zeitung}, April 6, 1963; d.w., “Ueckers Nagelkissen.” The voiceover for the film states Uecker had “a hard workload behind him.” Uecker himself stressed the self-discipline of the Zero artists in Heinz-Norbert Jocks, “Gespräche mit Künstlern: Günther Uecker,” \textit{Kunstforum International} No. 117 (1992), p. 309.

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older generation, alludes to the Auschwitz trials scheduled to start in the city two months after the close of Uecker’s exhibition. Similarly, Uecker’s nails, while usually the most material and cultural element of his abstract reliefs, visually dematerialize the TV shell with the help of paint and suggest electronic pixels as a basis for an abstract television art that questions and—perhaps idealistically at this point in time—transcends the object’s commodity status. Uecker accordingly referred to these nailed household items as “transgressions” and as efforts to “make this fetish cult . . . a little more artificial and sensitive to ideas [empfundlicher im Geistigen].” Toward the end of the film, shadows cast by the nails sweep over the shiny screen in an abstract pattern of horizontal stripes recalling the linear movement of the cathode ray tube.

The Zero artists’ individual work with television concluded with Black Gate Cologne: A Light Play, made collaboratively by Piene and his American artist friend Aldo Tambellini, who had co-founded the Black Gate, an “electromedia theater” in New York. In Cologne, the two worked with a complete electronic television studio and team including five cameras and cameramen under the supervision of WDR’s art editor, Wibke von Bonin. The raw footage for the 45,000 DM production was recorded on August 30, 1968, then mixed with additional material and cut during the following week to forty-seven minutes. Although reduced further to a twenty-three-minute version to address producers’ concerns about monotony, the work was eventually broadcast four times—first on January 26, 1969, and again in 1970, 1971, and 1974. “The broadcast became a work of art,” von Bonin states, the first full-scale television artwork, no less. Finally, some twenty-four years after Götz’s radar experiments, a largely abstract artwork was produced using the full pos-


79. The director’s cut is part of the documentation 40JAHREVIDEOKUNST.DE, DVD 1 1963–69. Von Bonin remembered a 45-minute director’s cut, but the one released on this DVD is 47 minutes. For this, basic facts, and a citation from Piene’s letter outlining the projects, see von Bonin, “Video and Television—Who Needs Whom?”, in Media Art Action, pp. 111–14. Her role in making this production possible appears significant, especially in light of the cost and Piene having first approached her only on August 5. Ibid., p. 112. Von Bonin had been on the staff of the WDR since 1966 and during her tenure produced between forty and sixty programs annually on art, design, and architecture. See her bio in Synthesis: Die visuellen Künste in der elektronischen Kultur, ed. Manfred Eisenbeis and Heide Hagelbolling (Offenbach: Hochschule für Gestaltung, 1987), p. 296. On Black Gate Cologne, see also Christiane Fricke, “1968/69 Black Gate Cologne: Otto Piene/Aldo Tambellini,” in 40JAHREVIDEOKUNST.DE, ed. Rudolf Frieling and Wulf Herzogenrath (Stuttgart: Hatje Cantz, 2006), pp.
sibilities of televisual form, production, and reception—preceding by a few months The Medium Is the Medium, also featuring Piene and Tambellini, produced by Fred Barzyk, and broadcast on March 23 on WGBH Boston; and Gerry Schum’s Land Art, broadcast on April 15 on SFB (Sender Freies Berlin)—each much better-known in the American annals of television art.  

If Uecker was concerned with the literal shell of television, the final directors’ cut of Black Gate Cologne zooms inside—inside the studio, inside its electronic manipulations, even inside our processing of it. Interlacing contributions by Piene, who dominated the first part, and by Tambellini, who more strongly shaped the second, the production throughout superimposes several layers of light reflections, movements, and patterns and transmutes them into one another. These were created by electronic manipulations of the footage, “all manner of visual wizardry of exclusively electronic origin,” as von Bonin has it, and by light sculptures that Piene had brought into the studio and developed out of the Light Ballets he had been making since 1959. Participants invited into the studio initially engage playfully with one another and with a circa 250-meter-long transparent hose-like sculpture and with smaller pneumatic structures, reminiscent of flowers, titled Fleurs du Mal and floating almost weightlessly through the studio. More continuous shots of these happenings are gradually replaced by fast cuts and pulsing camera movements, and the collaborators increasingly introduce in highly fragmented formats the slides, films, and open spool videos that Tambellini had brought with him for the production. These include most prominently footage from World War II, the shooting of Robert Kennedy, and electronic medical charts. Interlaced are self-reflexive shots of the production of the work—of cameramen, cameras, monitors, and the like. Of course this was the very electronic studio equipment that made possible the carefully crafted sampling of diverse sources. As von Bonin reports, “a decisive

98–103. Due to space limitations, I am not discussing Mack’s 45-minute work with and for television, entitled Tele-Mack and broadcast on WDR May 2, 1969, a few months following Black Gate Cologne. The film develops the tensions between a work of art and documentary already discussed with respect to 0x0=Kunst. Mack kindly made the film available to me.


81. Von Bonin, p. 112. For the light sculptures, see Fricke. Piene’s Light Ballets feature light and shadows moving through spaces. Lights were placed behind perforated metal objects, initially moved by hand and later mechanically, not unlike Fontana’s use of the buchi described above. Piene, “Lichtballet” (1960), reprinted in ZERO aus Deutschland, p. 250. During preparations for Winkler’s 0x0=Kunst, Piene thought of a “completion of my Light Ballets . . . perhaps we can show the Light Ballet;” Piene, in “0x0 gleich Kunst,” p. 252. These Light Ballets later developed into a series of multimedia performances, including audience participation, slide projections, sounds, and transparent, pneumatic objects. These culminated in The Proliferation of the Sun (1967) at Black Gate Theater, New York, and at Galerie Art Intermedia, Cologne; and in the September 7, 1968, Black Gate Düsseldorf on the Rhine bank, in collaboration with Tambellini and immediately preceding the production of Black Gate Cologne, see Otto Piene, exh. cat. (Cologne: Kunstverein, 1973), pp. 27, 59. Tambellini had worked with painted-glass slide projections and film montages of found television footage, especially for his
advantage was the ability to directly supervise images on the monitor in the control room, and also on the studio monitors, where the camera images could be incorporated into the final product together with the prefabricated ones.”

Black Gate Cologne thus subtly intertwines a series of arcs: from playful to urgent; from slow to fast cuts; from soothing, even melodic sounds to voices of found footage laid over shrill siren-like pulsing; from active to passive participants; from a public that participates to a public force-fed with an onslaught of informational fragments; from footage presenting television abstractly to footage about the production and institution of television; from Europe to the United States. The viewer effectively experiences television as it develops at this moment from a medium for making self-reflexive abstract art to one that conveys, structures, and manipulates information, particularly that of a political nature. Black Gate Cologne figured the transformation of television’s capability to reflect ambivalence toward the German economic miracle into an increasingly skeptical attitude toward the medium in Western Europe at large, as television maintained its public nature but began to be Americanized. The significance of Black Gate Cologne as the first work of art to make full-scale use of television thus coincided with its embodiment and representation of the end of television art’s abstract starts.


82. Von Bonin, p. 113.

83. Piene held on to a vision of television as a creative art form. In 1986, he stated that “another possibility, yet to be explored and developed, is the use of television as a creative art form… We need a television system that, by way of increased distribution and unrestricted creativity, can establish a new and expanded relationship between artist and audience.” Piene with Robert Russett, “Sky, Scale and Technology in Art,” Leonardo 19, no. 3 (1986), p. 198.