Released in 1987 by Fisher-Price, the pixelvision camera PXL2000 was, according to its manual, “the lightest, least expensive and easiest to use camcorder currently on the market.” ¹) Only slightly larger than a video cassette, a lightweight, cheap plastic case and big buttons make this analog camera easily identifiable as a toy intended for children or adolescents.²) One of its particularities lies in its technological simplicity. The average user can do little to manipulate the recording, because there is no focus adjustment, no light adjustment, no variable speed and the image is constrained to black and white. At the same time, this apparent lack of options allowed for easily accessible video-making in the late 1980s. There is another feature that distinguishes pixelvision from any other recording device: by capturing video on an audio tape, pixelvision not only makes use of a standard audio support in an unexpected way, but also testifies to its genuine technological hybridism. When the camera is connected to a TV-monitor, these re-recordable audio cassettes can be played back and viewed immediately. The limited information capacity of an audio cassette not only results in a lack of color, but also in a reduced image size and a low-resolution image. As the manual explains, “[t]he pixels are larger than in conventional TV images and therefore more visible. On larger TV-screens, the lower resolution of the PXL2000 camcorder picture will be more noticeable” (ibid). As compared to the resolution of a modern 35mm color film, which is, expressed in digital terms, 12,750,000 pixels in width (Fossati 2009: 76), a PXL2000 image is composed of only 2,000 pixels – hence the camera’s name. It records approximately ten minutes of video and audio, five minutes per side on a ninety-minute audio cassette. To make up for the reduced image size, a thick black box frame surrounds the image. Due to its low-resolution and its very slow screen refresh rate, a PXL2000 recording looks, well, pixelated and blurry; its gritty, hazy images with their washed-out look contribute considerably to the format’s visual identity. As Henry Jenkins points out, “the Pixelvision’s murky, grainy and unstable image has become the marker of alternative media authenticity” (2006: 154). In other words: its very materiality determines its meaning.

²) Though no longer being produced, the PXL2000 is still being used by many people and so I write in the present.
The PXL2000 came with a built-in front microphone allowing for recording the soundtrack directly on tape. Due to its lack of directionality, the microphone indiscriminately picks up information and noise, including sounds emitted by the tape itself, which runs at a very high speed. Hence, a whirring noise is ever-present in a pixelvision audio recording and functions as a material reminder of its technological base. This “sound of technology,” as Andy Birtwistle (2010: 85) would put it, can be regarded as the aural correlative of the format’s visual noisiness, embedded in its pixelated texture. Another unique feature of the PXL2000 is its fixed-focus lens, nothing more than a “plastic disk shielding a ‘photo receptor’ attached to a small circuit board” (Almereyda 1993: 2). This lens allows one to come extremely close to the pro-filmic object, miraculously registering both detail and depth. According to Nina McCarty, “[t]he lack of distortion in objects close to the lens is striking, and it is the close-up that, to many, defines pixelvision” (McCarty 2005: 139). Or, as artist Erik Saks explains, “you can get up close to your subject whether it is an inanimate object or a person because that, in particular, is the sweet zone of what looks good in pixelvision – being close to things” (ibid). Together with the format’s low-resolution, pixelated surface, the capability of shooting objects in extreme close-up enables the viewer to explore the surface of objects and of tangibly sensing both the texture of the medium and the texture of the pro-filmic event.

The history of pixelvision as an artistic medium begins with a Dada-like joke. This simple point-and-shoot camera failed to attract children – why would a child be happy to shoot a few minutes of low-resolution grey video? – and was already withdrawn from the market in 1989. Not good enough for kids raised with the production values of MTV, it was soon embraced by the underground art scene. From a commercial point of view, pixelvision can rightly be called a failed technology, already fallen into obsolescence by the time artists began to work with it. It made its first appearance on the big screen in Richard Linklater’s Slacker (1991), in a scene shot in Pixelvision that is worked into the diegetic world of the film, and in which characters are shown shooting with the PXL. In the final shot of the pixelvision scene, a character passes by, looks into the lens and exclaims, “Man, there ain’t no film in that shit!” This memorable line perfectly summarizes the low-cultural haut goût of the PXL2000 (as compared to ‘real’ film-making tools), before it turned into a retro object and collectors’ item. Stripped down to its bare essentials, not only the camera itself
looks ‘poor,’ but the images it delivers manifest ‘poorness’ too. Originally conceived as a toy, abandoned by its makers, reborn as an avant-garde filmmaking tool and eventually synonymous with preciousness and scarcity, the PXL2000’s shifting identities and transformations challenge us to engage with the format and its specific qualities in material, temporal, and political terms.

**LOW RESOLUTION MEDIA**

Questions of filmic materiality seem to have little relevance for film theory, which is mainly interested in content issues. Substandard image resolution is a strong marker of film’s material base as it confronts us with the physicality of the projected image, its grains and pixels, hardly perceptible in high resolution formats; at the same time, a surface attesting to low resolution conveys culturally produced meaning, according to which these images are ranked, classified and ‘sensed.’ In her manifesto “In Defense of the Poor Image,” Hito Steyerl states that “[t]he contemporary hierarchy of images is not only based on sharpness, but also and primarily on resolution” (2009: 3). Though low-resolution formats have existed before, digital technology and its possibility to upload, download, share, reformat and edit has dramatically increased the circulation of what Steyerl calls the “poor image.” On the one hand, as Steyerl admits, the poor image is “perfectly integrated into an information capitalism thriving on compressed attention spans, on impression rather than contemplation, on previews rather than screenings”; on the other it subverts “the fetish value of high resolution” (ibid: 7) and feeds into alternative audiovisual economies, by enabling the participation of a large group of producers and audiences.

While Steyerl explores the relation between the technically poor image and digital capitalism, Laura Marks’s *Hanan al-Cinema* (2015) situates the discussion of low resolution in the context of Third World experimental cinema from Arab-speaking countries. Unlike wealthy countries, which can trust in more or less reliable internet access, poorly infrastructured countries have to accept the loss of resolution and its companions compression and glitch as everyday annoyances. According to Marks, “[g]litches remind us of the ideology of convention, which includes assumptions that users have up-to-date platforms, legally acquired software, and access to customer support, and also that their computers are able to stream data at optimal speeds on reliable electrical systems” (ibid: 251). Far from romanticizing “Arab glitch,” Marks argues that low-resolution images are a considerable source of inspiration for artists in poorly

3) “Low resolution, compression, and glitch cannot be entirely distinguished visually, but each has a symbolic effect. Glitch interrupts the intended message with a more urgent one. Low resolution diminishes individuality and separation. Compression forces data to conform to filters” (Marks 2015: 251).
infrastructured countries. She pursues the question of how the daily experience of diminished image quality is exploited for artistic means: “Many artists in Arab countries explore the aesthetics of low-resolution video that has been copied multiple times, as a metaphor for selective memory and forgetting, an examination of archives, and a direct indication of practices of bootlegging, pirating, and making do with inferior copies” (ibid: 253).

Both Steyerl and Marks discuss the issue of substandard image resolution within the context of contemporary digitization and image transfer. Steyerl’s alignment of the “poor image” with class distinctions and defense against the imperative of pristine visuality in Western media landscapes, as well as Marks’s emphasis on lesser privileged countries and the creative potential inherent in low resolution media, raise the question of what led earlier generations of audio-visual artists to deliberately explore the low end of technology. One of the best known examples is, of course, Super-8 filmmaking, which fully exploded as an artistic practice during the 1980s – the reason why J. Hoberman (1991) retrospectively called this decade “The Super-8s.” This narrow, inexpensive gauge was appreciated by experimental filmmakers for its quasi-tangible graininess, which soon became a trademark of low-budget independent filmmaking. But from the 1990s onwards, the format and its provocative texture “gradually migrated from experimental to mainstream cinema and advertising, where the haptic image is now standard fare” (Marks 2015: 276). The final irony is that at about the same time Eastman Kodak stopped manufacturing Super-8 in 1998, contemporary digital devices made recreations of vintage effects available, suggesting the feeling of low-tech recording (Jutz 2016: 411). As pixelvision never became attractive enough for commercial purposes, what it shared then with Super-8 in the 1990s was, instead of a common future, a common past as a home-movie filmmaking tool.

In terms of resolution, pixelvision might be situated in the same family as Vuk Ćosić’s experiments in the late 1990s with ASCII, the American Standard Code of Information Interchange, in which the artist created his own software to convert still and moving images into this superannuated code, a relic from the early days of computer technology; and Gebhard Sengmüller’s VinylVideo (1998), a fake piece of media archaeology, which makes the storage of video on analog long-playing records possible. Discovered or invented by artists during the 1990s, Pixelvision, ASCII and VinylVideo can be seen as being in competition for the lowest
resolution rate, an attempt to fill the vacuum of slowly vanishing graininess left behind by Super-8. Compared to standard video’s 480 active lines of resolution, pixelvision has 100 and VinylVideo 84, all of them beaten by ASCII with its mere 20 lines. However, the revival of extremely reduced picture, and, at times, sound quality, which occurred at the very moment that technological perfection entered artistic practice, prompts us not only to criticize the teleological view of technology progressing ever forward, but also to reevaluate the role of the so-called obsolete within the media constellation of the 1990s.\textsuperscript{4}

Artworks which involve dated formats and low-tech aesthetics are not only a rewarding field for exploring their respective politics of representation, but also for examining the question of how materiality and temporality are connected. Ćosić’s dated computer code, Sengmüller’s attempt to make up for forgotten inventions, and some artists’ repurposing of a commercially failed apparatus – pixelvision – have at least one thing in common: a trust in obsolete and low-tech media to regain the haptic quality of former media technologies. But are ‘old’ media and dated formats necessarily related to low-tech and hapticity? And how do they indicate ‘pastness’? To reassess the significative potential of low resolution in temporal terms, it might be useful to take a look at Andy Birtwistle’s investigations into film sound, where he explains how a medium’s sonic signature itself – and not its content – is able to convey a feeling of pastness. As Birtwistle points out, in the realm of film sound, low-tech stands as the signifier of a technology of the past, because it foregrounds the technological and material circumstances of the sonic event as opposed to the “well-behaved, well-modulated and largely ‘inaudible’ soundtrack of mainstream cinema” (2010: 64). Simply put, the inaudibility of the contemporary sound of technology indicates presentness, whereas audible materiality today signals pastness (cf. ibid: 92). However, in the realm of cinematic images it would be misleading to support the idea that visible materiality embodied in a striking texture inevitably announces ‘pastness.’\textsuperscript{5} 35mm-film of course, as well as 16mm-film, could always deliver excellent image quality, whereas the later Super-8 could be regarded as rather ‘poor’; and celluloid aside, there is the diminished quality of digital files, if shared and copied multiple times. Hence, one has to be aware that sound and image might indicate ‘pastness’ in a different way. Birtwistle concedes that “[…] it is surely a mistake to suppose that inaudibility is a unique feature of twenty-first-century technology.

\textsuperscript{4} The artistic research project Reset the Apparatus! Retrograde Technicity in Artistic Photographic and Cinematic Practices, based at the University of Applied Arts Vienna, and funded by the Austrian Science Fund (FWF), examines the use of dated formats in contemporary photographic and cinematic practices. For more information, see http://www.resettheapparatus.net

\textsuperscript{5} Thanks to Michael Almereyda for having pointed out this fact (interview with Michael Almereyda, October 31, 2016).
and that with the recent development in digital media we are somehow finally approaching a point of complete technological inaudibility. Rather, inaudibility should be thought as an effect of currency, and it is therefore temporal displacement rather than a specific historical moment that determines the sound of pastness” (ibid: 92, emphasis in original). Pixelvision, a format falling into oblivion before it was re-activated by artists, will serve as the exemplary case study here for my explorations into the materiality, temporality and politics of a dated medium. I chose to look at three filmmakers – Sadie Benning, Michael Almereyda and Peggy Ahwesh – who are among the artists most often associated with the format.

EXPERIMENTAL VIDEO ART

Sadie Benning’s videos gained attention in the early 1990s for their powerful involvement with heterosexual norms and the raw portrayal of queer identity. These highly intimate and personal video diaries were shown at gay and lesbian film festivals and were also included in the 1993 Whitney Biennial program. Benning began making video around the age of fifteen when her father, experimental filmmaker James Benning, gave her a PXL2000 for Christmas. Her first videos coincide with the advent of “riot grrrl,” a socio-musical movement, which, though engaging with the Punk ethos, defied Punk’s growing misogyny (Johnson 2009: 178–179). Benning’s recurring theme is the questioning of empowerment within a culture not only hostile to non-standard gender identities, but also to young people and women. Her videos show a clear engagement in favor of difference – sexual or otherwise – and express rebellious non-conformism, but also its consequences, marked by feelings such as fear, anxiety and loneliness, which result from not fitting into social norms.

Narrated in the present, and largely in the first person, all of Benning’s nine pixelvision videos contain autobiographical references. Most are shot in her bedroom, a very personal space, and contain extreme close-ups of her body (Holmlund 2002: 301). *Me and Rubyfruit* (1990), Benning’s first video to be overtly presented as a coming-out narrative, begins with a handwritten dedication: “For/Libby/And/The Rubyfruit in all of us.” Surprisingly, the word “Libby” is blinking, “And” appears against a red background, and the rest of the dedication is written in green letters. As the missing black box frame in these initial inserts makes clear, color and blinking account for the use of a more advanced media format, because, as mentioned, pixelvision lacks color and does not...
allow for special effects such as blinking. The film’s title alludes to Rita Mae Brown’s classic 1973 novel *Rubyfruit Jungle* about coming out in the United States’ South. Benning’s video consists in large parts of an imaginary dialogue between the author and a fictional girlfriend, exchanged via scrawled inter-titles on the one hand and voice-over (spoken by Benning herself) on the other. *Me and Rubyfruit* begins with a handwritten question: “Leota, you thought about getting married?,” to which the voice-over quickly answers that “girls can’t get married.” The girls’ musing about lesbian marriage oscillates between a dedication to breaking rules and awareness that lesbian romance must be hidden from the public sphere; it even comprises a dash of desperate Hollywood glamor when Benning’s voice-over declares: “We’ll kiss like they do in the movies, and then we’ll be engaged.” It is not by chance that the name of the imaginary girlfriend is “Leota.” In Rita Mae Brown’s *Rubyfruit Jungle*, Leota is a young woman, with whom Molly, the main character, has her first sexual relationship in the sixth grade.

The written comments are accompanied by intrusive close-ups of Benning’s eye, ear, nose and hair and occasionally by shots captured from a television screen or shots of stereotypically glamorous women found in magazines. Occasionally, Benning’s voice-over gives way to snippets of pop songs and are quite suddenly interrupted. *Me and Rubyfruit* comes very close to the ideal of a “purist” usage of the PXL2000, which Nina McCarty describes as follows: “A Pixelvision purist would be a user who shoots and edits in the camera, with the original camera audio, and makes a video no longer than the length of one cassette. The purists confine themselves to the same technical limitations as the average home user in the late 1980s [...]” (2005: 131). And indeed, *Me and Rubyfruit* runs for five minutes and thirty seconds (five minutes being the length of one tape, the additional 30 seconds are due to the initial title insert, not shot on pixelvision and obviously added afterwards); the soundtrack is recorded directly on camera and hence accompanied by a considerable whirring noise emitted by the camera’s recording mechanism; the in-camera edits are distinctive and appear “as a visible jagged line cutting across the screen, a visible result of pressing the stop button on the camera [...]” (ibid: 137). Compared to the rough-and-readiness of Benning’s early work with pixelvision, in her films following *Me and Rubyfruit*, she abandoned this crude primitivism. In *Girl Power* (1992), for example, one of her most acclaimed and more accessible videos, there are no more in-camera edits and the music has been added...
carefully by post-synchronization. Instead of regarding such ‘impure’ practice as being against the ‘true’ spirit of pixelvision, or as a mark of indifference to the medium and its specific qualities, we should rather take them as a challenge to rethink our concept of medium specificity and its meaning within the media landscape of the 1990s.

Michael Almereyda frankly admits⁶ that when he began his first pixelvision project, Another Girl Another Planet (1992, fig.1-2), he drew inspiration from Sadie Benning’s videos. Without a producer and having only a modest budget, he decided to make an hour-long film about “two messed-up young men and their involvement with perhaps too many young women” (Almereyda 1993: 2). This East Village chamber drama (the action is confined to two apartments, a stairwell, and a roof) enthusiastically exploits the format’s blurry images and even re-enforces them by the ubiquitous cigarette smoke of the characters, thereby creating additional on-screen blur. The soundtrack consists of voiceovers and music. Almereyda chose pixelvision partly for economic reasons, but nevertheless appreciated its aesthetic qualities: “[…] it’s necessary to compose shots with an eye towards compressed space, to stage action with an awareness of how silhouettes register and relate to one another, and to favor close-ups […]” (Almereyda 1993: 3). The shooting was based on a script and a storyboard; the actors – except for Almereyda’s neighbor who agreed to play himself – were professionals. Moreover, not willing to accept the limitations of pixelvision, a series of simple, but far-reaching technical adjustments were made. First, Almereyda and his crew modified the lens, for many the unique aspect of the PXL2000. But not enough: another feature of the format, the recording of visual information onto audio tape was bypassed by wiring the PXL2000 to a conventional VCR unit in order to better control the shooting. Furthermore, Almereyda neither made use of the in-built mike and the possibility of direct sound recording, nor did he edit in-camera. Image and

⁶) Interview with Michael Almereyda (October 31, 2016).

// Figure 1
sound were recorded separately and finally edited at a more or less well-equipped video editing studio. Eventually, the only element of the PXL2000 not touched was the camera’s sensor. Strangely enough, all these manipulations, modifications and media transfers – including the final blow-up to 16mm-film and its eventual transfer to DVD – are far from vitiating pixelvision’s specific look. The film’s distinct physicality manifests itself in an evocatively grainy image, which echoes the main character’s hazy memories, when he thinks back on relationships with girlfriends past (Kipp 2003: 4). The title *Another Girl Another Planet* was inspired by the eponymous song of the British band The Only Ones, but does not appear in the film itself, though music does play a prominent role. The filmmaker’s passion for alternative tunes is exemplified by the inclusion of performers like Marianne Faithful, Ike Turner, Nick Cave, Psychic TV and Lefty Frizell. Their vocal performances activate what Roland Barthes called “the grain of the voice,” which lets us hear the very materiality of the performer’s body, “the cavities, the muscles, the membranes, the cartilages,” as Barthes elaborates (1977: 181). Many recordings are contemporary, though they do not conform to the polished sound of the post-dolby era. The audible articulations of the human body, perceptible in the performers’ voices and the technological audibility of the recording equipment contribute to the affective charge of Almereyda’s soundtrack.

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The superimposition of different layers of temporality can also be seen in *Another Girl Another Planet*’s references to the history of cinema. The film includes scenes from a 1935 Max Fleischer cartoon called *Dancing on the Moon*, watched by the film’s characters on TV, as well as verbal references to *Buongiorno, elefante!*, a 1952 Italian comedy directed by Gianni Franciolini, in which Vittorio de Sica plays a teacher struggling to take care of his family. An Indian prince visits Italy and gives the De Sica character a baby elephant named Sabu as a reward for showing him...
around. In Almereyda’s film, Sabu materializes – indeed, it is a real elephant in a real apartment – as the embodiment of an impossible dream and wishful thinking, as the filmmaker explains.\footnote{Interview with Michael Almereyda (October 31, 2016).} One could argue that the decision to include an elephant in the film also offered the unique possibility of pixelvision encountering the highly tactile quality of an elephant’s skin. Wrinkled, furrowed and marked with ridged creases, the pachyderm’s epidermis seems to be the perfect profilmic object for a camera that delivers with startling detail “the exact grain of any surface” (Almereyda 1993: 3). The texture of the elephant skin viewed in close-up shifts our attention from an optic toward a haptic materiality and leads us to think the visual in a material way.

\textbf{Peggy Ahwesh works in a variety of media, including Super-8 and 16mm-film, and both analog and digital video, but is equally interested in appropriating unusual tools and materials, such as surveillance cameras or footage from video games. More recently, she has experimented with a heat-sensitive camera and a 360 degree camera.\footnote{E-Mail to the author from November 4, 2016.}} Her openness towards unconventional technologies brought her in touch with pixelvision in the early 1990s. She found the camera to be best suited for \textit{Strange Weather} (1993, co-made with Margie Strosser, \textbf{fig.3-4}), a 50-minute fiction film about crack addicts during a hurricane, set and shot in Florida. As Ahwesh explained to Scott MacDonald: “I wasn’t sure how \textit{Strange Weather} was going to work out, so I went to Florida with a surveillance camera, a Super-8 camera, and a Pixil camera. […] I knew that with the Pixil camera I would be able to make overly dramatic things look underdramatic, and things that were nothing to look at, spectacular and tactile – and the drug world look grim and raw. I thought, ‘Degraded and grainy, Pixil will give me the right texture’” (Ahwesh in MacDonald 2006: 129).

Ahwesh’s high awareness of pixelvision’s specific material qualities did not prevent her from modifying the camera and adapting it to her own needs. As in Almereyda’s case, she did not use an audio tape in the PXL2000 but connected it to a VHS-deck and...
Ahwesh’s obvious lack of interest in any kind of ‘purism’ can also be sensed in her merging of fiction and documentary. Despite the fact that *Strange Weather* was scripted and staged mainly with professional actors, it is profoundly marked by a documentary realism. Its hybrid aesthetics is, on the one hand, due to the gritty black and white of pixelvision, and on the other, deliberately woven in by the filmmaker. *Strange Weather* tracks four young drug addicts during a single afternoon as they wait for a hurricane to hit. Towards the end, a blond girl gives a long speech about the first time she used crack. This scene was rehearsed many times and then shot in a single eight-minute take. As Ahwesh argues, “It’s a cliche from cinema verité that the longer a shot goes on without a cut, the more believable it is as reality” (Ahwesh in MacDonald 2006: 127). This constant oscillation between fiction and documentary is one of the most gripping aspects of her film. As the example with the long take makes clear, in order to interlace document and fiction (or, at least, the codes indicative of them), Ahwesh necessarily had to overcome the limitations of Pixelvision, especially the use of audio cassettes, which would have allowed only five minutes of uncut footage to be recorded. In other words, to realize her artistic goal, she had to abandon what purists would call the “medium specificity” of Pixelvision. Another interesting point is how Ahwesh makes use of a format often labelled ‘kid’s stuff’ by both practitioners and critics. Here again, Ahwesh does not hesitate to contaminate the ‘high’ with the ‘low’: a serious topic (drug addiction) is explored via a ‘not serious’ means (a toy camera).

Ahwesh was formed by the 1970s. She comes out of “feminism and the anti-art sensibility of punk” (Ahwesh in MacDonald 2006: 121), not unlike Sadie Benning, who, two decades later, was formed by second-wave feminism and the post-punk spirit of “riot grrrl.” Though overt gender issues seem to play no role in Michael
Almereyda’s work, Another Girl Another Planet’s urgency, rawness and DIY-attitude unequivocally testify to the punk sensibility, dear to all three filmmakers working with pixelvision.

A DEVOTION TO THE MINOR — As Peggy Ahwesh declared, “working in Super-8 is a devotion to the minor, to the low end of technology, to things that are more ephemeral and have less authority in the world” (Ahwesh in MacDonald 2006: 126). The same might be said even more rightly of Pixelvision. The term “minor” was introduced by Tom Gunning in discussing the new generation of avant-garde filmmakers who emerged from the 1980s onwards. Gunning himself borrowed it from Gilles Deleuze and Félix Guattari’s study Kafka Toward a Minor Literature: “There is nothing that is major or revolutionary except the minor. To hate all languages of masters” (Deleuze and Guattari 1986: 26). According to Gunning, “[m]inor literature remains aware of, and celebrates, its marginal identity, fashioning from it a revolutionary consciousness. [...] [A minor cinema] assert[s] no vision of conquest, make[s] no claims to hegemony. [It] reshapes our image of the avant-garde, moving away from its image of shock troop battalions” (1989: 2). Ten years later, uncomfortable with the mastery implied in masterworks, Catherine Russell declared: “We need to shift the emphasis from ‘great works’ to ‘examplary texts’” (1999: 22). And in 2005, William C. Wees entitles an article that looked back at the avant-garde of the 1980s and 1990s “No More Giants.” — The idea of mastery is intimately related to the principles of orthodox high modernism, best exemplified by Structural Film, which was much more than a temporary movement, but a kind of “International Style” (Gunning 1989: 2). This is clearly seen in the canonization politics of the influential Anthology Film Archives, whose “Manifesto” was published in The Essential Cinema (1975), edited by P. Adams Sitney. Here, the selection committee all male, by the way – declared: “Anthology Film Archives is philosophically oriented toward the pure film [...]” (Sitney 1975: XI). In the given context, “pure” meant an exclusive concentration on the medium’s formal properties – to the detriment of any extra-textual consideration. — Pixelvision, however, partakes in the minor, as defined by Gunning. Moreover, this bastard of audio and video without any aesthetic lineage represents the underground of underground. The use that filmmakers like Benning, Almereyda and Ahwesh make of the format lacks the self-reflexive impetus characteristic
of earlier generations of experimental filmmakers. The works described above refuse the notion of cinematic purity and embrace instead an impure, contaminated practice, one not regulated by modernism’s norms. More often than not, these filmmakers either modify the equipment, adapting it according to their needs, or they mix formats. Unlike the earlier generation, they are not willing to let formalism gain the upper hand above subject matter. The willingness rather to privilege the minor can rightly be understood as a political gesture, a deconstruction of hierarchical oppositions in favor of the under-privileged term (in this case, the minor, the low, the poor). As compared to the exclusionary ethics of high modernism, these filmmakers’ attitude is more inclusive in regards to the choice of their filmmaking tools as well as the use they make of them. The fact that the limitations of the medium need not necessarily be respected but rather deliberately disregarded, demonstrates a commitment to the spirit of punk and a rejection of mastery and paternal authority. It also can be read as a changed understanding of what medium specificity might mean in altered media conditions.

**REASSESSING MEDIUM SPECIFICITY**

Seen historically, the demand to maintain a medium’s ‘purity’ – that is, the emphasis on its medium-specific qualities – has gained in importance whenever a new medium strove for recognition as an art form. This was the case in Europe during the 1920s, when the cinematic avant-garde stopped imitating the established arts of literature and theater and began instead to rely on its own ‘essential’ qualities; this was true also in the United States after 1945, when film had to hold its own in the face of painting. The US avant-gardes, in comparison with those of Europe in the 1920s, went a step further in their purism. There the trend was not just towards refusing non-specifically cinematographic codes such as verbal language, narration, or even music, but even towards reducing specifically cinematographic codes to their material base (Wollen 1982: 197). In this regard, the ‘essence’ of the film medium was located in its physical characteristics, particularly in the filmstrip, the camera, projector, and screen, a tendency, which achieved its highpoint with the aforementioned Structural Film of the late 1960s and 1970s.

What we call “medium specificity” is not evidentially uncontroversial, but open to debate. According to Erika Balsom (2013), despite all recent attempts to abandon the notion of medium specificity, the term is still useful, but has to be reassessed in the context...
of digitization and media convergence. For a contemporary understanding of medium specificity, it is necessary to give up “the old fiction of the purity of media” and to consider “interpenetration and contamination” (Balsom 2013: 74). Instead of locating medium specificity in the material base of the apparatus, as the discourse of Structural Film had suggested, Balsom favors another conception of medium specificity, one grounded in film’s “ability to register a trace of pastness” (ibid: 77). Instead of forging self-reflexive systems in order to achieve an artwork’s autonomy, “[n]ow, on the contrary, film’s medium specificity lies in its ability to point beyond itself, in the assertion of its radical lack of autonomy by indexing the past” (ibid). The indexical trace is intimately allied with the extra-textual realm of objects. Hence, art practices based on the trace challenge conceptions of “autonomy” and “purity” and can be considered alternatives to high modernist claims of purity (Jutz 2010: 36).

Nevertheless, the question of pixelvision’s bond to reality, and therefore its ability to register a trace of pastness, needs a more articulated investigation into the ontological status of this mode of reproduction as compared to the photochemical mode, on which the discourse of the trace was originally based. Pixelvision’s ontology is complicated by the fact that it is a hybrid of (early) digital and analog modes of reproduction. The analogical mode “transcribes before it represents” (Rodowick 2007: 78), whereas the digital mode implies a transcoding process from light or sound waves into digits or codes. Giovanna Fossati (2009) rephrases the debate, analog versus digital, to a debate among media, that is, between those which are immediately intelligible for the observer and can be called “isomorphic,” and those, which require transcoding to allow intelligibility: “From this perspective also analog sound waves (or the analog video images) transcribed onto a magnetic tape would not be isomorphic, as the magnetic signal cannot be directly interpreted as sound or moving images by our senses. Also in this case a sort of transcoding process has occurred, even though within the ‘continuous’ physical domain. Magnetic tapes, but also analog television, may well be considered part of a non-isomorphic representation process, even though they provide analog (continuous) representations” (ibid: 18). It cannot be denied that pixelvision offers a different form of representation than photochemical film. Pixelvision’s particular ontological status, though based on transcribing, and non-isomorphic, might be seen as a loosening of its bond with reality. Even if it is true that pixelvision does not register the indexical trace in the same way as photochemical systems do,
it is nevertheless able to “point beyond itself” (Balsom 2013: 77), and to embrace the extra-textual and thereby to stand for an anti-autonomous conception of medium specificity. Indeed, the PXL2000 Camcorder’s manual itself encourages a non-specific use of the medium by recommending direct recording to a video tape or transferring recorded material from the PXL2000 audio tape to a video tape, and describes in detail how this can be done.\(^{11}\) This is to say that a ‘purist’ use of the PXL2000 never was intended or envisioned – not even by its makers! The use artists such as Benning, Almereyda and Ahwesh made of pixelvision in the early 1990s comes very close to a conception of medium specificity that foregrounds transition, transformation and contamination. Their videos tell narratives about continuous transformations, the migration of images and sounds from one format into another. And this is precisely where pixelvision’s medium specificity can be located – in its inherently transitional nature, a feature this dated format shares with audiovisual artifacts in our current media condition.

CONCLUSION: THE NEWNESS OF A DATED FORMAT

Today, all content produced by technical media can be converted into digital data. Hence, transformation is at the heart of our contemporary media constellation and offers, as Fossati argues, “the most appropriate and productive term to define the process that film is undergoing at the moment” (2009: 20). The critical engagement with pixelvision, a genuinely hybrid format, can not only contribute, as Tom Gunning put it, “[to grasping] the newness of old technologies” (2003: 303), but also to shedding light on a theorization of the contemporary media scape, one that is marked by conversion, transfer and transformation.

The timeliness of this untimely format also lies in its capacity to embody matters of texture and time, further attesting to its multiple trajectories. If transformation is an inherent property of contemporary media, pixelvision is its avant-garde. With every transfer – for example, from the initial audio tape to video tape, to 16mm-film to digital file, and so on – resolution diminishes. The constant migration of images from one format to another builds up layer over layer, and these layers materially document the uses the artist has made of the format as well as the history of the copy’s circulation. The multiple transformations a PXL2000 video has undergone are manifest on its surface and can be regarded as, in Giordana Bruno’s phrase, “an archive of temporalities”

Moreover, all these transfers add textural quality and hapticity and serve as a reminder of cinema’s initial tactile quality of vision. According to Walter Benjamin, film’s tactility was due to montage and the constant and sudden change of shots it provoked, which “periodically assail[ed] the spectator” (1973: 238). However, Thomas Elsaesser points out that already during the early 1920s cinema had lost its initial tactility, as Benjamin had argued, and “acquired its own aura: that of glamor and total specular entrancement” (Elsaesser 1996: 17). During the 1980s, the small-gauge format Super-8 raised again the question of haptic vision, though not by means of montage, but by means of its very texture, not unlike pixelvision in the 1990s. These minor mediums’ tactile visuality can be seen as a revenant of film’s initial shock effect, ascribed by Benjamin to the young film medium. From this perspective, pixelvision’s provocative textural quality, enhanced by its transitional nature, would point to a lost past. At the same time, haptic vision describes the ongoing desire for textured surfaces, under threat of disappearance due to the fetishization of high resolution.

An engagement with pixelvision would be incomplete without considering the institutional and economic determinations of the format. In this regard, Jonathan Walley offers a useful distinction between the tradition of “filmmakers’s films” on the one hand, and that of “artists’ films” on the other, which represent two entirely different economic models: “The key difference is in how avant-garde film and artists’ film regard the tangible, material object that film-making produces: the print. Whereas the limited number of prints avant-garde film-makers strike is a function of their extraordinarily low budgets, in artists’ film prints are purposefully scarce, as scarcity is what makes them valuable in the art market. [...] Simply put, artists’ film regards the film print as an art object in a way that avant-garde cinema does not. The same medium used in two different modes of film practice is subject to strikingly different processes based on distinct conceptions of its materials” (Walley 2008: 187). The videos of Benning, Almereyda and Ahwesh can be clearly situated in the tradition of “filmmakers’s films.” They completely lack the sense of purposeful scarcity (a means of traditional bourgeois value-creation) and instead favor an attitude of open access. While Sadie Benning’s films were originally distributed on VHS, Michael Almereyda offers a DVD, and Peggy Ahwesh disseminates her films on the internet platform vimeo.
During the 1990s, pixelvision, this low-end version of analog video, appealed to artists with counter-cultural, subversive and radical agendas. Its particular aesthetics escaped not only the institutional and economic determinations of the art market, but also the commercializations of vintage culture and nostalgia. Less commodifiable than other formats, pixelvision tells the story of an artistic practice – without aesthetic lineage and not striving for either autonomy or mastery – that can rightly be regarded as political. Pixelvision encourages the conversion from one format into another, which is, at the same time, the defining characteristic of our contemporary digital culture. Though a dated format, its inherently transitional nature allows for a rethinking of materiality and temporality within the framework of transformation, so crucial for our current media constellation. Pixelvision's topicality lies (among other areas) in its capacity to reshape questions of medium specificity in the face of convergence, thus enhancing its relevance to the contemporary moment.

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// About the Author

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// Gabriele Jutz

MAN THERE AIN’T NO FILM IN THAT SHIT
MATERIALITY, TEMPORALITY AND POLITICS OF PIXELVISION VIDEO

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