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## Stories from Ultrasonographic Abyss

Much has been written about foetal images; it is generally believed that their appearance in the 1960s – mainly in the form of photographs and, following the development of ultrasound technology in the 1970s, as sonograms – played a role in the emergence of the notion of foetal subjectivity within the discourses of medicine, bioethics and culture <sup>1</sup>.



Ultrasound image of a foetus at 14 weeks.  
Public domain

These discourses are noticeably bifurcated. On the one hand there is the positive narrative involving the “discovery” of the foetus by “new technology”; it is a story of rapture over the “ability to see” that which had previously been hidden from the human eye. It is also a story – one spun primarily by doctors – of the technological progress that has enabled us to alleviate suffering, offer therapy in the early stages of pregnancy, and dispel doubts. “There were no ultrasounds back in our mums’ day, and they still managed to get through their pregnancies, some with fewer complications and others with more. Now we can eliminate every risk factor. [...] More than anything else, an ultrasound lets the doctor know that everything is fine with the baby. It also gives the parents peace of mind and an image of their little one on the screen”, says the narrator of an instructional video titled *Dominika i Marcin będą rodzicami* [Dominika and Marcin are having a baby], posted on YouTube by happytv.pl, a channel that describes itself as “TV for parents” <sup>2</sup>. Finally, it is a story about pleasure: “I find looking at the foetus in my body to be unbelievably pleasurable” <sup>3</sup>, says Sharon Lehner in her essay “My

Womb, the Mosh Pit”.

On the other hand, the history of prenatal images is depicted as a dark one. The foetus/image isn't treated as a human being, but as a phantasm and a product of ambiguous technology (perhaps technological manipulation?) used to create a prosthetic entity that enables the total supervision of women's bodies and minds. What we see is uncertain, possibly even unwanted. In an era when ultrasonic images have become a ubiquitous part of pregnancy, the viewer begins to resemble the main character in Stanley Kubrick's *A Clockwork Orange* (1971): immobilised before the screen, his eyes wide open – watching images that are intended to mechanically transform his brain and, in turn, modify his behaviour. This optimistic narrative is tinged with a blatant falsehood (does the ultrasound actually guarantee “peace of mind”?), and the awe of technology is undercut by a concurrent sense of apprehension.

I will explore the tropes of these two – often tightly interwoven – narratives in an attempt to describe the discourses that accompany the experience of prenatal ultrasound testing, while also considering the force of the imagery and the nature of the cultural entities that it conjures up. These reflections hinge on the crucial issue of ultrasonography as a (relatively) new electronic technology, encounters with which are described in contemporary recapitulations as particularly stirring or even traumatic. I rely primarily on the exhaustive anthropological interpretations of ultrasound written worldwide in the past twenty years, as well as on narratives of an artistic, popular and documentary/instructional nature pertaining to ultrasound testing and other forms of medical imaging, insofar as they warrant mentioning.

## Stories of fear

By the time Sharon Lehner wrote her narrative about the

pleasure she experienced at the sight of the ultrasound image of her own foetus, the story of her pregnancy had already reached its unfortunate conclusion: the results of an invasive diagnostic procedure (amniocentesis, which involves the extraction of a woman's amniotic fluid and subsequent testing of the foetal DNA contained in it) revealed "profound anomalies", and Lehner chose to have an abortion. American anthropologist Rayna Rapp described this experience – having a sonogram performed when facing the possibility of a problematic pregnancy – in her book *Testing Women, Testing the Fetus: The Social Impact of Amniocentesis in America*<sup>4</sup>. One of the women she interviewed, a 35-year-old theatre producer, said the following:

Because as soon as you see the sonogram, it's very real. They focused on the heart, and it was beating, and then you could see the head.... And the doctor was really terrific, like, there was all this excitement in the room, and she gave me a picture, and they're all very positive ... but you're trying to contain yourself from feeling that way [...] because you're more likely than the average [pregnant] person to have a problem. So I walked out of there pretty high ... but I really have been trying to hold back the feeling pending results [of the invasive procedure].<sup>5</sup>

This description, and numerous similar ones (to which I will return later), illustrate the ambiguous role of ultrasound images. Ultrasonography is a medical procedure, but it is also a significant social ritual of sorts, one that leads to the creation of a particular visual "surplus": a media entity which the woman encounters during the sonogram, and a "picture" of which is then given to her as a "souvenir" (one that also happens to be part of her conventional medical documentation). A good example of the ambiguous nature of the ultrasound procedure can be found in a four-minute video produced by the Edward Hospital Perinatology Center in Naperville, Illinois (USA) – one of many such videos available on YouTube – in which staff member Dr Jill

Moran explains the procedure to viewers and emphasises the importance of prenatal ultrasounds<sup>6</sup>. She discusses the purpose of the three routine sonograms conducted during pregnancy, which include determining the number of fetuses and dating the pregnancy, but also examining the foetal structure to check for “evidence of birth defects” and to “assess for risk of chromosomal abnormalities”. Dr Moran looks directly at the camera as she delivers this information, but her words are punctuated with footage of her performing an ultrasound on a woman in the advanced stages of pregnancy. The next part of the recording focuses on this procedure, attended by the doctor, the patient and her boyfriend, who is accompanying her as an observer. The doctor changes her language significantly – she now uses the word *baby* rather than *foetus* – but she continues to discuss the technical aspects of the ultrasound (e.g. the option to listen to the foetus’ heartbeat and view its waveform on the screen, to add colour in order to map selected parts of the foetus’ cardiovascular system, or to generate a three-dimensional image in order to identify “abnormalities” in its external appearance) along with its individual functions. This ultrasound clearly produces satisfactory results, and no abnormalities are detected; the patient beams with joy throughout almost the entire procedure. “If they cooperate, we can usually get a profile picture, which is always nice to take home [...]. And we have that very nicely here [...]”, says the doctor. “Oh, wow!” exclaims the patient as she looks at the monitor. “That’s amazing”, her partner adds when, a moment later, Dr Moran points out fingers on the screen. The recording ends with the doctor’s assurance, delivered directly to the camera, that ultrasound testing is both necessary and safe for mother and child.

In this video ultrasound is depicted as a simultaneously pleasant and terrifying procedure. The assurance that everything is fine comes with the constant threat that the opposite is true, while both diagnoses are presented – in keeping with the mechanism of medicalisation – as being beyond the pregnant patient’s ability of assessment; she can do nothing but await a verdict passed down by an outside institution. The image is simultaneously a live transmission (or even a form of communication, as the foetus can choose to “cooperate” with the doctor) and – once again – a souvenir. At the same time, it is a space in which to examine and discover (diagnose) “aberrations” and “abnormalities”. The experience of this sort of pregnancy encourages comparison with Hito Steyerl’s description of a world modelled on the likeness of the Internet, in which “intense voyeurism [is] coupled with maximum nontransparency”, control is coupled with conformism, and “where intelligent cars do grocery shopping until a Hellfire missile comes crashing down”<sup>7</sup>. While these words refer to a forecasted future, they aptly convey the pairing of technologically generated pleasure with the expectation of catastrophe that accompanies prenatal visual diagnostics.

Extreme examples of the search for anomalies can be found in Tsipy Ivry’s article “The Ultrasonic Picture Show and the Politics of Threatened Life”<sup>8</sup>, in which she discusses ultrasound practices in Israel. As Ivry writes, ultrasonography serves there as an “illustration of reproductive catastrophe”<sup>9</sup>: “ultrasonic images work as illustrations of the ‘mistakes’ that may occur”<sup>10</sup>. A particular example of this tendency, in the scholar’s view, are the study days for pregnant women held at hospitals, where ultrasound specialists depict the scale of the threats – disabilities and foetal deformations – that can be screened with the help of



Ultrasound image. Public domain

ultrasound. Ivry describes these lectures as “ultrasound picture shows” (referencing Jim Sharman’s 1975 film *The Rocky Horror Picture Show*) that mix pleasure and horror<sup>11</sup>. The pleasure, however, doesn’t come from “looking at babies”, especially when a woman is expecting the birth of her own child, but from the awe at technology that is capable of “foreseeing” danger (the event described by Ivry is held under the Mishnah-inspired motto “To See the Unborn”, which in the original context is a reference to prudent foresight rather than pregnancy<sup>12</sup>) and is able to display an image that offers pleasure by way of its own perfection and – simultaneously – a certain absurdity. The absurdity (and, in the lecturer’s view, the humour) stems from the fact that the three-dimensional images portray the foetuses as if they were performing various “grown-up” activities (including, for example, “masturbation”) that are supposed to amuse the audience of pregnant women gathered in the hospital conference room<sup>13</sup>. At the same time, the lecture features a compilation of reproductive mishaps, all of which lead to the conclusion that “a myriad of deformations and abnormalities occur all the time and that each and every organ [in the foetus] may be subjected to deformity and abnormality”<sup>14</sup>. Ivry describes how one doctor, excited by the possibilities offered by ultrasonography, points “out to the audience ‘how nicely you can see small details like the fingers and the toes,’ after which he shows pictures of fetuses with six fingers”<sup>15</sup>.

The Israeli scholar observes that there are cultural differences in the way ultrasound technology is used in the United States (whose narrative has been adopted by a significant part of the Western world), Asia (Ivry cites her own anthropological research in Japan, and the thoroughly studied medical and cultural practices of Vietnam) and Israel. Researchers of the Euro–American discourse emphasise the manner in which foetuses are cast as “foetal subjects” and perceived, as a result of ultrasonic imagery, as “children” and “patients”; the pregnant

woman (henceforth referred to as the “mother”) is, from this perspective, either altogether absent or a threat to the foetus<sup>16</sup>. In Israel, by contrast, the visual culture of prenatal care separates the woman from the foetus in order to reinforce an opposing perspective. The “threatened life” mentioned in the title of Ivry’s essay refers not to the foetus, but to the woman: in Judaism, a religion that also wields strong influence over the cultural practices involved in medicalised pregnancy, the foetus can be described as *rodef*, “the pursuer”, one who threatens the woman (and, by extension, society)<sup>17</sup>. In this highly advanced society, one that nevertheless displays a strong traditional propensity for catastrophic thinking, only technology grants salvation and protection from the chaos, disease and death involved in the “reproductive catastrophe” that is the birth of a deformed child. At the same time, as the doctors emphasise, not even technology can guarantee complete certainty; thus, the mechanisms of testing and the reproduction of fear multiply in an endless loop<sup>18</sup>.

Like the experience of fear that accompanies the practice of ultrasound testing, this mechanism – the reinforcement of certainty – also occurs in the ostensibly more familiar Euro-American context. An unfavourable diagnosis means that a decision must be made whether to terminate a pregnancy or carry it to term – a personal dilemma that is resolved under great social pressure (which is likely why Rapp refers to women who subject themselves to the new modalities of prenatal diagnostics as “moral philosophers of the private”<sup>19</sup>). The fear of bad results is compounded, somewhat paradoxically, by the fear of this still-new technology. There is a rational dimension to these misgivings: while doctors assure us of the safety of ultrasound, they also suggest caution against its “overuse”<sup>20</sup>. The enthusiastic response evoked by the procedure, virtually since the very start of its popular use, has been accompanied by



more sceptical opinions that fundamentally question the medical benefit of widespread ultrasound screenings for pregnant women, although the frequency of ultrasound testing continues to grow<sup>21</sup>. It is also likely, however, that the sources of these apprehensions can be traced to broader cultural contexts. If viewing ultrasound images is (also) pleasant, perhaps this is pleasure for which one must pay a price – a price that is exacted for viewing that which ought not to be viewed. I believe this notion warrants further exploration.

## Ghost stories

Another of Rapp's interviewees, 42-year-old museum curator Carol Seeger, recalls the ultrasound that she underwent for her amniocentesis:

All of a sudden, the baby, the foetus turned its face toward me. And, Rayna, there was a real face. [...] And the technician said, "See it," and I thought for a moment, "He's looking right at me." He looked like that image from 2001: I mean there was a person there, inside my body, looking out at me. It was too strange. And too traumatic to have an abortion after that. That's what the sonogram did.<sup>22</sup>

This stirring description offers extraordinary insight into a traumatic encounter with a media image. It includes an obvious over-interpretation (one caused in part, as the patient mentions earlier, by the behaviour of the technicians conducting the procedure, who help her see her "child"<sup>23</sup>): a 20-week foetus, like the one mentioned by Seeger, cannot open its eyes, and even if it could, it could not "look" at her via the ultrasound machine. The manner in which the woman recalls the experience makes it apparent that she is aware of the phantasmal nature of these sensations, ones permeated – as Rosalind Pollack Petchesky observes – by previously viewed images, particularly the iconic "Star Child" in Stanley Kubrick's *2001: A Space Odyssey* (1968)<sup>24</sup>

. Drifting through space, shaped and posed to resemble a foetus in the late stages of pregnancy, the being – a symbol of the birth of a new humankind – has wide-open blue eyes. Yet Seeger's self-awareness does not mitigate the impact of this experience. Sharon Lehner, herself a media scholar, also wrote: "I believe I have seen my child. I can't help myself"<sup>25</sup> .

Seeger's description of the being gazing at her from the screen reveals a clear concern that the ultrasound image has done something irreversible. Perhaps something was seen that should have remained unseen until the moment she was ready to see it. But what happens when it is actually seen? Seeger's narrative is not positive, much less sentimental; the patient describes the feeling of viewing the foetus (or rather being viewed by it) as "strange" and even "traumatic". There is something deeply unsettling about the impossible "gaze" the foetus directs at her.

In the reconstruction of her experience with prenatal ultrasound, Lehner compares the examination room and its semi-darkness (which Seeger also mentions) to a film theatre. Yet in modern cinema the technological marvel that is the depiction of life and movement evokes practically no astonishment. Here it is worth mentioning the earliest passages describing encounters with moving images. In 1896, in Nizhny Novgorod, Maxim Gorky wrote about his impressions following the first screening of a motion picture:

You imagine the spray will reach you, and you want to shield yourself. [...] But [you cannot] hear the gurgle of the water as it gushes from the hose left lying on the ground. This mute, grey life finally begins to disturb and depress you. It seems as though it carries a warning, fraught with a vague but sinister meaning that makes your heart grow faint. You are forgetting where you are. Strange imaginings invade your mind and your consciousness begins to wane and grow dim....<sup>26</sup>

The Lumière brothers' "living images" reflect reality – they are even its indexical mark – but that reflection is at once marked by

an unambiguous shift relative to the original. Thus, rather than mere representation, “this mute, grey life” becomes an entity in its own right – like a phantasm, but of technological provenance. In fact, this was precisely the outcome that the “moving pictures” first audiences had hoped for. A journalist for *Le Poste* wrote on December 30, 1895 – the year of the invention of cinema and the discovery of X-rays – about the device built by the Lumières: “Once these instruments [...] are delivered to the public, once all will be able to photograph the beings dear to them, no longer in an immobile form, but in movement, in action, making their familiar gestures, with speech on the tips of their tongues, death will cease to be absolute”<sup>27</sup>. When read in the context of Gorky’s account, this promise seems strikingly ambiguous.

We observe this anxiety even more intensely in the instance of medical images that reveal the “future”, e.g. an unborn child. “To see the unborn” is almost like seeing a ghost, a being from another dimension. Although the foetus undoubtedly exists and is alive, and we are also hopeful (or anxious) in our expectation that it will be born as a child, it has now become a being that is at once (still) invisible and (yet) unborn; therefore, to see it – as a being that reciprocates our gaze, no less – ruptures the regular, sanctioned order of reality. “I am mourning, and I can’t say for whom, or even what”<sup>28</sup>, Lehner writes. Meanwhile, as Wojciech Micher points out, after Jacques Derrida – in the chapter “Beauty as Beast”, devoted to ghosts – the ghosts and spectres produced by our unconscious share a certain characteristic: “we do not know what it *is*, what it is now. More precisely, it is something we don’t know about, and we don’t know whether it is precisely this that *is*, whether it exists, whether it falls under some name and corresponds to some being”<sup>29</sup>. The sight of the foetus on the screen floating in the darkness, separate from the body of the expectant mother and fragmented (as electronic reconstructions are inevitably

incomplete), only heightens that sensation.

Yet such treacherous ventures into the future are nothing new in the history of medical imaging. In Thomas Mann's *The Magic Mountain* Hans Castorp is given an X-ray examination (in a dark laboratory, naturally: "We first have to let darkness wash over our eyes to see anything"<sup>30</sup> ), allowing him to view, with the help of Director Behrens, a live radiograph of his own hand.

And Hans Castorp saw exactly what he should have expected to see, but which no man was ever intended to see and which he himself had never presumed he would be able to see: he saw his own grave. Under that light, he saw the process of corruption anticipated, saw the flesh in which he moved decomposed, expunged, dissolved into airy nothingness – and inside was the delicately turned skeleton of his right hand [...]. And for the first time in his life he understood that he would die.<sup>31</sup>

Mann compares the qualities of X-rays to the abilities displayed by mediums (in the spiritualist sense), referencing a popular turn-of-the-century myth, according to which clairvoyants who possessed the supposed ability to predict a person's illness or death in fact wielded actual "radiation" of some sort, allowing them to see more than normal people did<sup>32</sup> . Yet the skeletal image shown to Castorp in *The Magic Mountain* is more significant than a psychic's intuition: it is accompanied by a firm belief in science and modern technology, while also affirming the validity of a metaphysical perspective<sup>33</sup> . A radiograph, like an ultrasound image, is something that can be observed in real time, but which also "remains" (as a keepsake) with the help of technical mediation and preservation: "You'll get a free copy, Castorp. Just think, you'll be able to project the secrets of your bosom on the wall for your children and grandchildren"<sup>34</sup> , Director Behrens says to Hans contentedly, thus anticipating the gesture that would one day be made by thousands of ultrasound technicians as they offered their

patients souvenir “photographs”.

Naturally, not every medical image is eagerly offered or taken home as a souvenir. We choose depictions which we can imbue with cultural relevance: photos of a (future) skeleton and a (future) child certainly fall into this category and, as has been the case in the past, they lend technology certain magical and metaphysical qualities – like a trick that simultaneously evokes laughter and fear – reaffirming a specific “profound” image of reality. Both prenatal ultrasound and X-ray radiography were, in their own eras, “new visual media”, yet part of the fascination they evoke has its source in the liminal processes of life and death, which they appear to reference. After all, even the then-spectacular breakthrough in visual technology that cinema was inevitably provoked reflections on mortality (as was later the case with William Gibson’s cyberspace, populated by dead beings or those that had never existed).

Meanwhile, the theme of spiritualism re-emerges at the end of *The Magic Mountain* as Hans Castorp voices his concerns over having seen something that he should not have seen in the X-ray (“Spooky, isn’t it? Yes, there’s no mistaking that whiff of spookiness”<sup>35</sup>, says Behrens, referring to the image of Castorp’s skeleton)<sup>36</sup>. This time, however, the director’s doubts pertain to Hans’ viewing of the “inside” of his cousin and friend Joachim Ziemssen. While Ziemssen consents to “certain optical indiscretions”<sup>37</sup> on the part of Hans (the subject’s courteous and almost indifferent invitation – “Oh, please, go ahead and look” – is given several emphatic repetitions in Mann’s prose), they nevertheless seem somewhat inexcusable – curiosity cannot be justified on moral grounds. It remains “mere” curiosity, excusing us from the responsibility of judging what we see, satisfying the desire to see at any cost; a suspicious desire that involves dicing with the dark, irrational forces within oneself, heedless of the warnings that accompany Hans Settembrini’s objection to Castorp’s participation in the séances held by the bored patients

of the Berghof<sup>38</sup>. (Is this not the very sort of curiosity – the kind that might provoke some unspecified misfortune – that we are warned against in the above-quoted recommendations, which discourage the “excessive” use of ultrasonography for entertainment or “souvenir pictures” rather than for legitimate medical purposes?) Hans sees the bones and beating heart of Ziemssen, and after his cousin’s death he takes part in a séance to communicate with the spirit of the deceased. The séance turns out to be a terrifying experience. It resembles a “scandalous birth”: the medium – a frail, adolescent patient named Ellen Brand – “gives birth” to Joachim’s spirit. The event is accompanied by paranormal phenomena such as the appearance of an X-ray of Clavdia Chauchat in Hans’ lap and the inexplicable materialisation of a record of “Valentin’s Prayer” from the opera *Faust* by Charles Gounod on the gramophone. By its association with the séance, the X-ray examination, conducted in a dark laboratory, is also placed on the side of irrational forces, as is the practice of summoning the dead, to which it is peculiarly linked.

The appearance of Joachim’s ghost – his purely “optical” image – is also scandalous, of course, and Hans realises rather too late that it should not have happened (“‘Forgive me!’ he whispered to himself, and then the tears came to his eyes and he saw nothing more.”<sup>39</sup>) As Mann writes:

The desirability of such a return [of the dead] – is always a complicated, ticklish matter. Ultimately, to put it plainly, it does not exist, this desirability. It is a miscalculation; by the light of cold day, it is as impossible as the thing itself, which would be immediately evident if nature rescinded that impossibility even once; and what we call mourning is perhaps not so much the pain of the impossibility of ever seeing the dead return to life, as the pain of not being able to wish it.<sup>40</sup>

This piece of metaphysical advice does not preclude, however,

the notion of conquering death with the help of images – a vision that is referenced with surprising regularity in the era of film and new media (as it was in the past, from the psychological mechanisms that drove the ancient Egyptians to mummify their dead, all the way back in time to the very first pictures<sup>41</sup> ).

This idea assumes a futuristic form in *Black Mirror*, a television series set in the near future, written by Charlie Brooker (three seasons, 2011–2016). The opening episode of season two, titled “Be Right Back” (dir. Owen Harris, 2013), tells the story of a young woman who is grieving after the death of her partner. An offer from an unnamed company gives Martha (Hayley Atwell) the chance to “recreate” her dead boyfriend through a computer simulation; initially limited to text-based interaction, this simulation later assumes the voice of Ash (Domhnall Gleeson), and is finally equipped with a synthetic body, modelled on the likeness of the original.

Martha is initially uninterested in creating a “digital ghost”<sup>42</sup>, as one reviewer describes the artificial Ash; she refers to the use of his name in the e-mail offer as “obscene”. But she soon learns that she is pregnant. In her loneliness, Martha’s desire to share this news with her deceased partner is so overpowering that she soon succumbs to this media temptation. Following Ash’s death, the woman moves into a remote old house in the country; her contact with the outside world is only sustained through media. “Black mirrors”, i.e. the touchscreens on smartphones, laptops and tablets<sup>43</sup>, are as ubiquitous as they are discreet, obediently responding to Martha’s subtle gestures. Ash emerges from the digital darkness as a perfect product, nearly identical to his deceased precursor, and yet, as a “mere image” he is fundamentally and consciously different to him.

In this video ultrasound is depicted as a simultaneously pleasant and terrifying procedure. The assurance that everything is fine comes with the constant threat that the opposite is true, while both diagnoses are presented – in keeping with the mechanism of medicalisation – as being beyond the pregnant patient’s ability of assessment; she can do nothing but await a verdict passed down by an outside institution. The image is simultaneously a live transmission (or even a form of communication, as the foetus can choose to “cooperate” with the doctor) and – once again – a souvenir. At the same time, it is a space in which to examine and discover (diagnose) “aberrations” and “abnormalities”. The experience of this sort of pregnancy encourages comparison with Hito Steyerl’s description of a world modelled on the likeness of the Internet, in which “intense voyeurism [is] coupled with maximum nontransparency”, control is coupled with conformism, and “where intelligent cars do grocery shopping until a Hellfire missile comes crashing down”<sup>7</sup>. While these words refer to a forecasted future, they aptly convey the pairing of technologically generated pleasure with the expectation of catastrophe that accompanies prenatal visual diagnostics.

Extreme examples of the search for anomalies can be found in Tsipy Ivry’s article “The Ultrasonic Picture Show and the Politics of Threatened Life”<sup>8</sup>, in which she discusses ultrasound practices in Israel. As Ivry writes, ultrasonography serves there as an “illustration of reproductive catastrophe”<sup>9</sup>: “ultrasonic images work as illustrations of the ‘mistakes’ that may occur”<sup>10</sup>. A particular example of this tendency, in the scholar’s view, are the study days for pregnant women held at hospitals, where ultrasound specialists depict the scale of the threats – disabilities and foetal deformations – that can be screened with the help of



*Black Mirror*, “Be Right Back”, season 2, episode 1, 2013



ultrasound. Ivry describes these lectures as “ultrasound picture shows” (referencing Jim Sharman’s 1975 film *The Rocky Horror Picture Show*) that mix pleasure and horror<sup>11</sup>. The pleasure, however, doesn’t come from “looking at babies”, especially when a woman is expecting the birth of her own child, but from the awe at technology that is capable of “foreseeing” danger (the event described by Ivry is held under the Mishnah-inspired motto “To See the Unborn”, which in the original context is a reference to prudent foresight rather than pregnancy<sup>12</sup>) and is able to display an image that offers pleasure by way of its own perfection and – simultaneously – a certain absurdity. The absurdity (and, in the lecturer’s view, the humour) stems from the fact that the three-dimensional images portray the foetuses as if they were performing various “grown-up” activities (including, for example, “masturbation”) that are supposed to amuse the audience of pregnant women gathered in the hospital conference room<sup>13</sup>. At the same time, the lecture features a compilation of reproductive mishaps, all of which lead to the conclusion that “a myriad of deformations and abnormalities occur all the time and that each and every organ [in the foetus] may be subjected to deformity and abnormality”<sup>14</sup>. Ivry describes how one doctor, excited by the possibilities offered by ultrasonography, points “out to the audience ‘how nicely you can see small details like the fingers and the toes,’ after which he shows pictures of fetuses with six fingers”<sup>15</sup>.

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Like the experience of fear that accompanies the practice of ultrasound testing, this mechanism – the reinforcement of certainty – also occurs in the ostensibly more familiar Euro-American context. An unfavourable diagnosis means that a decision must be made whether to terminate a pregnancy or carry it to term – a personal dilemma that is resolved under great social pressure (which is likely why Rapp refers to women who subject themselves to the new modalities of prenatal diagnostics as “moral philosophers of the private”<sup>19</sup>). The fear of bad results is compounded, somewhat paradoxically, by the fear of this still-new technology. There is a rational dimension to these misgivings: while doctors assure us of the safety of ultrasound, they also suggest caution against its “overuse”<sup>20</sup>. The enthusiastic response evoked by the procedure, virtually since the very start of its popular use, has been accompanied by

more sceptical opinions that fundamentally question the medical benefit of widespread ultrasound screenings for pregnant women, although the frequency of ultrasound testing continues to grow<sup>21</sup>. It is also likely, however, that the sources of these apprehensions can be traced to broader cultural contexts. If viewing ultrasound images is (also) pleasant, perhaps this is pleasure for which one must pay a price – a price that is exacted for viewing that which ought not to be viewed. I believe this notion warrants further exploration.

## Ghost stories

Another of Rapp's interviewees, 42-year-old museum curator Carol Seeger, recalls the ultrasound that she underwent for her amniocentesis:

All of a sudden, the baby, the foetus turned its face toward me. And, Rayna, there was a real face. [...] And the technician said, "See it," and I thought for a moment, "He's looking right at me." He looked like that image from 2001: I mean there was a person there, inside my body, looking out at me. It was too strange. And too traumatic to have an abortion after that. That's what the sonogram did.<sup>22</sup>

This stirring description offers extraordinary insight into a traumatic encounter with a media image. It includes an obvious over-interpretation (one caused in part, as the patient mentions earlier, by the behaviour of the technicians conducting the procedure, who help her see her "child"<sup>23</sup>): a 20-week foetus, like the one mentioned by Seeger, cannot open its eyes, and even if it could, it could not "look" at her via the ultrasound machine. The manner in which the woman recalls the experience makes it apparent that she is aware of the phantasmal nature of these sensations, ones permeated – as Rosalind Pollack Petchesky observes – by previously viewed images, particularly the iconic "Star Child" in Stanley Kubrick's *2001: A Space Odyssey* (1968)<sup>24</sup>

. Drifting through space, shaped and posed to resemble a foetus in the late stages of pregnancy, the being – a symbol of the birth of a new humankind – has wide-open blue eyes. Yet Seeger's self-awareness does not mitigate the impact of this experience. Sharon Lehner, herself a media scholar, also wrote: "I believe I have seen my child. I can't help myself"<sup>25</sup> .

Seeger's description of the being gazing at her from the screen reveals a clear concern that the ultrasound image has done something irreversible. Perhaps something was seen that should have remained unseen until the moment she was ready to see it. But what happens when it is actually seen? Seeger's narrative is not positive, much less sentimental; the patient describes the feeling of viewing the foetus (or rather being viewed by it) as "strange" and even "traumatic". There is something deeply unsettling about the impossible "gaze" the foetus directs at her.

In the reconstruction of her experience with prenatal ultrasound, Lehner compares the examination room and its semi-darkness (which Seeger also mentions) to a film theatre. Yet in modern cinema the technological marvel that is the depiction of life and movement evokes practically no astonishment. Here it is worth mentioning the earliest passages describing encounters with moving images. In 1896, in Nizhny Novgorod, Maxim Gorky wrote about his impressions following the first screening of a motion picture:

You imagine the spray will reach you, and you want to shield yourself. [...] But [you cannot] hear the gurgle of the water as it gushes from the hose left lying on the ground. This mute, grey life finally begins to disturb and depress you. It seems as though it carries a warning, fraught with a vague but sinister meaning that makes your heart grow faint. You are forgetting where you are. Strange imaginings invade your mind and your consciousness begins to wane and grow dim....<sup>26</sup>

The Lumière brothers' "living images" reflect reality – they are even its indexical mark – but that reflection is at once marked by

an unambiguous shift relative to the original. Thus, rather than mere representation, “this mute, grey life” becomes an entity in its own right – like a phantasm, but of technological provenance. In fact, this was precisely the outcome that the “moving pictures” first audiences had hoped for. A journalist for *Le Poste* wrote on December 30, 1895 – the year of the invention of cinema and the discovery of X-rays – about the device built by the Lumières: “Once these instruments [...] are delivered to the public, once all will be able to photograph the beings dear to them, no longer in an immobile form, but in movement, in action, making their familiar gestures, with speech on the tips of their tongues, death will cease to be absolute”<sup>27</sup>. When read in the context of Gorky’s account, this promise seems strikingly ambiguous.

We observe this anxiety even more intensely in the instance of medical images that reveal the “future”, e.g. an unborn child. “To see the unborn” is almost like seeing a ghost, a being from another dimension. Although the foetus undoubtedly exists and is alive, and we are also hopeful (or anxious) in our expectation that it will be born as a child, it has now become a being that is at once (still) invisible and (yet) unborn; therefore, to see it – as a being that reciprocates our gaze, no less – ruptures the regular, sanctioned order of reality. “I am mourning, and I can’t say for whom, or even what”<sup>28</sup>, Lehner writes. Meanwhile, as Wojciech Micher points out, after Jacques Derrida – in the chapter “Beauty as Beast”, devoted to ghosts – the ghosts and spectres produced by our unconscious share a certain characteristic: “we do not know what it *is*, what it is now. More precisely, it is something we don’t know about, and we don’t know whether it is precisely this that *is*, whether it exists, whether it falls under some name and corresponds to some being”<sup>29</sup>. The sight of the foetus on the screen floating in the darkness, separate from the body of the expectant mother and fragmented (as electronic reconstructions are inevitably

incomplete), only heightens that sensation.

Yet such treacherous ventures into the future are nothing new in the history of medical imaging. In Thomas Mann's *The Magic Mountain* Hans Castorp is given an X-ray examination (in a dark laboratory, naturally: "We first have to let darkness wash over our eyes to see anything"<sup>30</sup> ), allowing him to view, with the help of Director Behrens, a live radiograph of his own hand.

And Hans Castorp saw exactly what he should have expected to see, but which no man was ever intended to see and which he himself had never presumed he would be able to see: he saw his own grave. Under that light, he saw the process of corruption anticipated, saw the flesh in which he moved decomposed, expunged, dissolved into airy nothingness – and inside was the delicately turned skeleton of his right hand [...]. And for the first time in his life he understood that he would die.<sup>31</sup>

Mann compares the qualities of X-rays to the abilities displayed by mediums (in the spiritualist sense), referencing a popular turn-of-the-century myth, according to which clairvoyants who possessed the supposed ability to predict a person's illness or death in fact wielded actual "radiation" of some sort, allowing them to see more than normal people did<sup>32</sup> . Yet the skeletal image shown to Castorp in *The Magic Mountain* is more significant than a psychic's intuition: it is accompanied by a firm belief in science and modern technology, while also affirming the validity of a metaphysical perspective<sup>33</sup> . A radiograph, like an ultrasound image, is something that can be observed in real time, but which also "remains" (as a keepsake) with the help of technical mediation and preservation: "You'll get a free copy, Castorp. Just think, you'll be able to project the secrets of your bosom on the wall for your children and grandchildren"<sup>34</sup> , Director Behrens says to Hans contentedly, thus anticipating the gesture that would one day be made by thousands of ultrasound technicians as they offered their

patients souvenir “photographs”.

Naturally, not every medical image is eagerly offered or taken home as a souvenir. We choose depictions which we can imbue with cultural relevance: photos of a (future) skeleton and a (future) child certainly fall into this category and, as has been the case in the past, they lend technology certain magical and metaphysical qualities – like a trick that simultaneously evokes laughter and fear – reaffirming a specific “profound” image of reality. Both prenatal ultrasound and X-ray radiography were, in their own eras, “new visual media”, yet part of the fascination they evoke has its source in the liminal processes of life and death, which they appear to reference. After all, even the then-spectacular breakthrough in visual technology that cinema was inevitably provoked reflections on mortality (as was later the case with William Gibson’s cyberspace, populated by dead beings or those that had never existed).

Meanwhile, the theme of spiritualism re-emerges at the end of *The Magic Mountain* as Hans Castorp voices his concerns over having seen something that he should not have seen in the X-ray (“Spooky, isn’t it? Yes, there’s no mistaking that whiff of spookiness”<sup>35</sup>, says Behrens, referring to the image of Castorp’s skeleton)<sup>36</sup>. This time, however, the director’s doubts pertain to Hans’ viewing of the “inside” of his cousin and friend Joachim Ziemssen. While Ziemssen consents to “certain optical indiscretions”<sup>37</sup> on the part of Hans (the subject’s courteous and almost indifferent invitation – “Oh, please, go ahead and look” – is given several emphatic repetitions in Mann’s prose), they nevertheless seem somewhat inexcusable – curiosity cannot be justified on moral grounds. It remains “mere” curiosity, excusing us from the responsibility of judging what we see, satisfying the desire to see at any cost; a suspicious desire that involves dicing with the dark, irrational forces within oneself, heedless of the warnings that accompany Hans Settembrini’s objection to Castorp’s participation in the séances held by the bored patients

of the Berghof<sup>38</sup>. (Is this not the very sort of curiosity – the kind that might provoke some unspecified misfortune – that we are warned against in the above-quoted recommendations, which discourage the “excessive” use of ultrasonography for entertainment or “souvenir pictures” rather than for legitimate medical purposes?) Hans sees the bones and beating heart of Ziemssen, and after his cousin’s death he takes part in a séance to communicate with the spirit of the deceased. The séance turns out to be a terrifying experience. It resembles a “scandalous birth”: the medium – a frail, adolescent patient named Ellen Brand – “gives birth” to Joachim’s spirit. The event is accompanied by paranormal phenomena such as the appearance of an X-ray of Clavdia Chauchat in Hans’ lap and the inexplicable materialisation of a record of “Valentin’s Prayer” from the opera *Faust* by Charles Gounod on the gramophone. By its association with the séance, the X-ray examination, conducted in a dark laboratory, is also placed on the side of irrational forces, as is the practice of summoning the dead, to which it is peculiarly linked.

The appearance of Joachim’s ghost – his purely “optical” image – is also scandalous, of course, and Hans realises rather too late that it should not have happened (“‘Forgive me!’ he whispered to himself, and then the tears came to his eyes and he saw nothing more.”<sup>39</sup>) As Mann writes:

The desirability of such a return [of the dead] – is always a complicated, ticklish matter. Ultimately, to put it plainly, it does not exist, this desirability. It is a miscalculation; by the light of cold day, it is as impossible as the thing itself, which would be i

Meanwhile, the expectant Martha is given an ultrasound. The three-dimensional image on the screen differs significantly from what we might expect. The foetus is portrayed as smooth and shiny, framed in the iconic position found in Lennart Nilsson photo albums and other similar images.



But rather than the familiar colour palette – the pink and orange hue of the photographs, the ultrasound’s shades of grey, or even some of the more naturalistic attempts to recreate the pigmentation of human skin with computer graphics – we witness the interplay of black and cold, glaring green. Reminiscent of outer space, the colours redirect our associations towards something more “alien” – more like a traveller from a distant planet than a member of the new and better variety of humanity symbolised by the “Star Child”. Martha records the sound of the foetus’ heartbeat, which she replays the next day for Ash, who, at this point, exists solely in vocal mode. For a brief instant, two humans – one yet unborn, the other no longer alive – encounter each other in media space through synthetic sounds. The biblical reminder “For you are dust, and to dust you shall return” comes to mind and acquires particular significance in the context of the episode, which directly grapples with the symbolic coexistence of birth and death, and in which the deceased character bears the name Ash. Rather than dust in the physical sense, the name indicates a media simulation whose presence resembles that of a ghost or spectre, something that causes metaphysical trouble because we “don’t know what it is”. Technology acquires yet another capability: the creation of ghosts – technological avatars of the dead and yet unborn. The vision of the process’ individual stages of development – from the first technical drawings to simulations based on digital data – could be complemented with the example of Jacek Dukaj’s *Córka łupieżcy* [The Plunderer’s Daughter], in which the visually perceptible and intelligent avatar of the main character’s daughter precedes not only the child’s birth, but even the mother’s impregnation<sup>44</sup>.

Though the issue is somewhat problematic in both psychological and cultural terms, *Black Mirror* leaves the trope of the ultrasound foetus simulation unresolved; Martha’s pregnancy goes well and concludes with the birth of

a girl. The sounds and images of the foetal stage thus become part of Martha and Ash's daughter's media history. But that cannot be said of Ash himself, or his presence in Martha's life. Electronic devices such as the smartphone and laptop are unambiguously portrayed as seducing the heroine, who, in a moment of weakness, initiates the process leading to the construction of the synthetic version of her dead boyfriend, which happens to be possible in large part due to his strong media presence (on social media, for example). Ash would not have had such a rich afterlife had he not constantly been somewhat "absent in spirit". Yet when this desperately desired media reconstruction becomes fact, Martha is at a loss as to what to do with it. She stows Ash away in the attic along with photos of her other dead loved ones, thus acting out the pattern of unresolved mourning once practiced by her boyfriend's mother (according to recollections Ash shared before his death). Despite the expectations expressed by one of her girlfriends, the digital reconstruction doesn't help Martha cope; in fact it prevents her from fully progressing through the stages of grief. The presence of the ghost (and don't ghosts traditionally inhabit attics?) is a sign that something has gone wrong, if we consider the notion that, as Thomas Mann writes, mourning is essentially caused by "the pain of not being able to wish" for the return of the dead.

## Stories of weak images<sup>45</sup>

In light of the above considerations, prenatal ultrasound begins to appear as a stereotypical example of treacherous technology – the kind that lures us in only to disrupt our normal mental and cultural functions. A similar characterisation emerges from Rosalind Pollack Petchesky's early analysis, cited above, in which she identifies within the practice of ultrasonography the male need to control – even appropriate – reproduction while also fetishising the foetus as a (phantasmic) object of erotic emotions<sup>46</sup>. The Kubrickian

figure of the “Star Child” – a visual and interpretative cliché that (as demonstrated in the comments made by Rayna Rapp’s interviewees) overlaps with the blurry ultrasound images viewed by patients during the procedure – is a “cyborg”, a “biomechanism” – the only survivor of a nuclear holocaust, the fear of which partially inspired the vision of the world found in *2001: A Space Odyssey*<sup>47</sup>. The foetal image “diverts us from the real threat of nuclear holocaust” and thus “signifies not life but death”<sup>48</sup>, Petchesky claims.

This problematises the pleasure that women draw from viewing ultrasound images; Petchesky postulates the creation of new images that would consider the body of the woman carrying the foetus and the social space in which that body is immersed<sup>49</sup>. The images we see today create a media spectre that is the “unborn child” which, rather unsurprisingly, turns out to be dangerous: even ghosts in the psychoanalytic sense speak nothing but untruths<sup>50</sup>.

It is worth mentioning at this point that the *Black Mirror* episode featuring the digital ghost is not part of the horror genre; rather, its style is one that can be described as “tenderly ironic”. The “uncanny” is attenuated by the characteristically modern stance of detachment. Perhaps the same is sometimes true of ultrasonography: ultimately, as one of the doctors quoted by Tsipy Ivry admits, “There is a mutual understanding between the patients and the doctors that this blah blah of ‘Hey look, the baby’s waving goodbye to you’ is a joke. Both parties know what ultrasound is for”<sup>51</sup>. On the other hand, Ivry reminds us that “people joke about only what is most serious”, citing folklorist Alan Dundes<sup>52</sup>. Naturally, questions of life and death are by their very nature serious, but in this case there is something more at stake: not just the gravity of reality, but also the gravity of the image, which continues to be a mere image while it assumes a particular position in the realm of culturally sanctioned feelings and practices. But what position is this? Can we unambiguously

determine what impact sonograms have as “strong” images? This “strong” position has been widely written about and discussed by supporters of the various methods of disciplining pregnant women. In her book *The Public Life of the Fetal Sonogram: Technology, Consumption, and the Politics of Reproduction*, Janelle S. Taylor presents a view that is widespread among doctors despite the lack of research to support it – namely that when a patient views an ultrasound image, a “bond” is formed between her and the foetus<sup>53</sup>. This bond is believed to have medical significance: patients who experience it will be more likely to refrain from harmful behaviour (such as smoking cigarettes or drinking alcohol while pregnant) and make positive choices (maintaining a healthy diet and lifestyle)<sup>54</sup>. Taylor characterises this purely imaginary cause-and-effect model as “seeing is behaving”<sup>55</sup>. The problem, as the author points out, is that there are no studies to support these expectations, and it is unclear what this mysterious “bond” that supposedly forms between the woman and the child projected on the screen is. Supporters of the theory of “ultrasound bonding” base their claims, on the one hand, on their conviction that some special relationship between the mother and child must surely exist; on the other hand, they argue that viewing a technological image allows this bond to emerge earlier than it normally would. Technology seems to offer salvation, as it does in Tsipy Ivry’s article, although in the latter it is a cure for nature’s mistakes, one that allows us to efficiently “track down” and “eliminate” any anomalies that might occur (precluding the possibility of a bond with the foetus by way of the image, or the foetus “as the image”); Taylor, in contrast, depicts it as a crutch in the “natural” development of maternal love, advancing this stage to the first weeks of pregnancy. But when it comes to the matter of unambiguously diagnosing the effect of ultrasound images on women, doctors are less radical than pro-life activists. Katha Pollitt quotes the director of a “pregnancy resource center” in Baton Rouge who claims

that “ninety-eight percent of women who have ultrasounds choose to carry to term”<sup>56</sup>. Convictions like these drive pro-life organisations to insist that women seeking abortions be encouraged or obligated to view ultrasound images, and that they listen to explanations of the pictures and recordings of the foetus’ pulse<sup>57</sup>.

But just as there is no statistical data to confirm that an ultrasound image could stimulate the formation of a bond between a pregnant woman and the child she is expecting (according to Taylor’s research, studies to back up such a claim have not even been attempted), the data on the number of women who reconsider their choice to abort after viewing ultrasound images is false. “Just about every pro-choice woman who has had a baby in the last three or four decades has seen a sonogram”<sup>58</sup>, Pollitt writes. She goes on to cite a widely reported 2014 study that looked at 15,575 women who had used the services of a Planned Parenthood clinic in Los Angeles. It found that 42% had agreed to see the ultrasound, and 98.4% of those who did so followed through with their decision to terminate the pregnancy. “Of the 1.6 who changed their minds, all were part of the 7.4 percent of patients who were already ambivalent”<sup>59</sup>, Pollitt writes. In a popular article titled “Is This the Ultrasound Generation?”, journalist Mattie Kahn quotes a remark from one of the researchers behind the California study, Katrina Kimport, who tries to explain the findings:

Women make abortion decisions in relationship to the circumstances of their lives. And what you see on a screen is not going to change your financial situation. It’s not going to change or reduce the needs of your existing children. It’s not going to make a partner supportive or stop him from being abusive. The visualization on the screen doesn’t change the reasons that make women seek abortions in the first place.

In addition to the social reasons listed above, there is also the medical context to consider: a woman may have a wanted pregnancy, but the foetus may turn out to be suffering from a condition that is classified as serious and irreversible. On the one hand, ultrasonography seems to play a crucial role in the diagnosis of disease – permitting the conclusion that these images are “strong” in a manner contrary to that assumed by pro-lifers. On the other hand, in many instances, including those mentioned in Rayna Rapp’s aforementioned observations, the diagnosis is ultimately based on the results of the amniocentesis: diagnostic imaging is merely an additional, secondary modality, albeit a highly significant one (an ultrasound image that reveals abnormalities in the medical sense can signal the need for more in-depth diagnostics; an ultrasound also increases the safety of the amniotic fluid test). “Even as the sonogram personifies the fetus, the amniocentesis puts its situation in question”<sup>61</sup>, writes Rapp, unambiguously assigning the roles in the emerging equation while emphasising the moral, social and psychological challenges of the patient’s circumstances. This configuration is reinforced by cutting-edge genetic diagnostic testing that uses the woman’s blood, rendering the ultrasound completely unnecessary from a medical perspective (at the same time, however, due to the distribution of medical services, women who undergo such genetic testing are those who are most likely to have the greatest number of ultrasounds performed)<sup>62</sup>. The question of the mutual relationship between various tests and the way in which they function is a separate subject, particularly in regard to the popular and medical discourses in Poland. What interests me here is how a woman experiences the media image when undergoing an ultrasound, how powerfully it affects her, and the possible consequences of that influence. Immediately evident if nature rescinded that impossibility even once; and what we call mourning is perhaps not so much the

pain of the impossibility of ever seeing the dead return to life,<sup>40</sup>  
as the pain of not being able to wish it.

This piece of metaphysical advice does not preclude, however, the notion of conquering death with the help of images – a vision that is referenced with surprising regularity in the era of film and new media (as it was in the past, from the psychological mechanisms that drove the ancient Egyptians to mummify their dead, all the way back in time to the very first pictures<sup>41</sup> ). This idea assumes a futuristic form in *Black Mirror*, a television series set in the near future, written by Charlie Brooker (three seasons, 2011–2016). The opening episode of season two, titled “Be Right Back” (dir. Owen Harris, 2013), tells the story of a young woman who is grieving after the death of her partner. An offer from an unnamed company gives Martha (Hayley Atwell) the chance to “recreate” her dead boyfriend through a computer simulation; initially limited to text-based interaction, this simulation later assumes the voice of Ash (Domhnall Gleeson), and is finally equipped with a synthetic body, modelled on the likeness of the original.

Martha is initially uninterested in creating a “digital ghost”<sup>42</sup>, as one reviewer describes the artificial Ash; she refers to the use of his name in the e-mail offer as “obscene”. But she soon learns that she is pregnant. In her loneliness, Martha’s desire to share this news with her deceased partner is so overpowering that she soon succumbs to this media temptation. Following Ash’s death, the woman moves into a remote old house in the country; her contact with the outside world is only sustained through media. “Black mirrors”, i.e. the touchscreens on smartphones, laptops and tablets<sup>43</sup>, are as ubiquitous as they are discreet, obediently responding to Martha’s subtle gestures. Ash emerges from the digital darkness as a perfect product, nearly identical to his deceased precursor, and yet, as a “mere image” he is

fundamentally and consciously different to him.

The “weakening” of the image – brought about by the discrediting of its media identity – could also be achieved by examining the mechanisms leading to its creation.

“When an ultrasound scanner measures the inside of a person’s body using sound waves, the machine computes the result in digital format and renders it as what we take to be an image. But it

is only a computation”<sup>63</sup>, writes Nicholas Mirzoeff, referring to the near-30-year tradition of considering digital images as results of the work of computational machines, which – as forms of advanced technology – are potentially susceptible to endless manipulation<sup>64</sup>. This description of the simulated and constructivist nature of prenatal ultrasound once again indicates a possible connection to the “digital ghost” in *Black Mirror*. Ash, a reconstruction of the digital traces left by the boyfriend prior to his death, is essentially a “product” delivered by an unnamed company to fulfil the “need” of the main character’s mourning. In the world depicted in the episode, Ash exists not because he should, but – like most technological innovations – because he can, both in technical and psychological terms. In this context, we can only ask rhetorically: is this an actual need? Do we not mourn without such forms of support? This brings us back to the question of whether the medical and cultural need for ultrasound images is sufficient “justification” for their existence and the manner in which they function in society. Now that they exist, though, we cannot but recognise their cultural significance, although the role played by these images may turn out to be lesser or different than suspected.

Sharon Lehner writes: “Images ARE real, insofar as they offer



Star Child. Prop from the film *2001: A Space Odyssey*. Stanley Kubrick, exhibition at the National Museum in Kraków, 2014. Photo: Matylda Szewczyk



pleasure, cause pain, and incite viewers to action”<sup>65</sup>, while Rayna Rapp observes: “Fetal imagery is changing the ways in which women respond to the anxiety of grading, normalising, and controlling pregnancy”<sup>66</sup>. Both authors apparently reject the notion that technical images of fetuses should be considered irrelevant or powerless to affect us. At the same time, in contrast to Rosalind Pollack Petchesky, they don’t view the presence of these images as clearly threatening, much less encouraging specific behaviour – even if the images “incite viewers to action”, they leave room to negotiate the scope and nature of this action. When an ultrasound technician shows Lehner the foetus’ fingers and toes, the patient consents to the deal she is offered: she perceives the “boy” in the image and laughs at the jokes about his “behavior”. When she goes on to write: “In the crowded abortion clinic after the Catholic hospital refuses to perform the procedure, I feel alone with my only witness: an image with ten fingers and ten toes”<sup>67</sup>, her loneliness is mostly the result of her struggle to find the right language to convey her experience. And perhaps it’s not just one language she needs, but many; what remains certain is that her task is as urgent as ever.

The author wishes to thank her students at the Institute of Polish Culture, University of Warsaw, for their input on the series *Black Mirror* and – more importantly – medical imaging.

1 See, for example: Rosalind Pollack Petchesky, “Foetal Images: The Power of Visual Culture in the Politics of Reproduction”, in *The Gender/Sexuality Reader: Culture, History, Political Economy*, eds. Roger N. Lancaster and Micaela di Leonardo (New York–London: Routledge, 1997); Magdalena Radkowska-Walkowicz, *Doświadczenie in vitro. Niepłodność i nowe technologie reprodukcyjne w perspektywie antropologicznej* (Warsaw: Wydawnictwa Uniwersytetu Warszawskiego, 2013), 144 and subsequent pages; Matylda Szewczyk, „Obrazy (od) początku. Kilka uwag o kulturowej roli medycznych i dokumentalnych przedstawień płodu”, in *Więcej niż obraz*, ed. Eugeniusz Wilk et al. (Gdańsk: Wydawnictwo Naukowe Katedra, 2015); Agnieszka Graff, *Świat bez kobiet. Płeć w polskim życiu publicznym* (Warsaw: WAB, 2001). The dates mentioned pertain primarily to the United States and Western Europe. Prenatal ultrasound

- became popular in Poland later, and has only been standard medical practice since the early 21<sup>st</sup> century. However, photographic imagery of fetuses was also present in Poland earlier (e.g. photos by Lennart Nilsson, cf. Lennart Nilsson, Axel Ingelman-Sundberg and Claes Wirsén, *Fotodokumentacja rozwoju życia ludzkiego w łonie matki*, trans. Jolanta Sychowska-Kavedžija (Zagreb: Kršćanska Sadašnjost and Warsaw: Instytut Rodziny, 1985), and the procedure was a topic of public discussion.
- 2 The name Happy.tv comes from a brand of disposable nappies; the film is available at <http://www.youtube.com/watch?v=3nJAWsFVBOI>, accessed April 15, 2017.
  - 3 Sharon Lehner, "My Womb, the Mosh Pit", in *The Feminism and Visual Culture Reader*, ed. Amelia Jones (London–New York: Routledge, 2003), 547.
  - 4 Rayna Rapp, *Testing Women, Testing the Fetus: The Social Impact of Amniocentesis in America* (New York–London: Routledge, 2000).
  - 5 *Ibid.*, 126.
  - 6 Recording available at: <http://www.youtube.com/watch?v=JEFh13-qcNs>, accessed April 15, 2017.
  - 7 Hito Steyerl, "Too Much World: Is the Internet Dead?", *e-flux* no. 49 (2013), <http://www.e-flux.com/journal/49/60004/too-much-world-is-the-internet-dead/>, accessed April 18, 2017.
  - 8 Tsipy Ivry, "The Ultrasonic Picture Show and the Politics of Threatened Life", *Medical Anthropology Quarterly* 23, no. 3 (2009).
  - 9 *Ibid.*, 200.
  - 10 *Ibid.*, 201.
  - 11 *Ibid.*, 195.
  - 12 *Ibid.*
  - 13 *Ibid.*, 197.
  - 14 *Ibid.*
  - 15 *Ibid.*
  - 16 *Ibid.* Ivry is referring in particular to the aforementioned article by Rosalind Pollack Petchesky, "Fetal Images", and to the research of Janelle S. Taylor. See for example *The Public Life of the Fetal Sonogram: Technology, Consumption, and the Politics of Reproduction*

(New Brunswick–New Jersey–London: Rutgers University Press, 2008).

- 17 Ibid. 205.
- 18 Ibid. 207.
- 19 Rapp, *Testing Women, Testing the Fetus*, 128.
- 20 This anxiety is expressed in popular and scholarly articles, in numerous Internet posts about alternative medicine, and on various online forums, where the discussions frequently take on a preposterous form.
- 21 Juned Siddique, John D. Lantos, et al., "Trends in Prenatal Ultrasound Use in the United States 1995–2006", *Medical Care* 47, no. 11 (2009).
- 22 Rapp, *Testing Women, Testing the Fetus*, 127.
- 23 The narrative accompanying the image, delivered by a doctor or technician speaking as an expert, is central to the majority of testimonials describing the prenatal ultrasound experience. Magdalena Radkowska-Walkowicz writes (referencing the ultrasound image in the documentary film *The Silent Scream*, directed by Jack Dabner, 1984): "The viewers essentially see what they are told to see. It is the commentary, the choice of words that play the most important role" (Radkowska Walkowicz, *Doświadczenie in vitro*, 147). Conversely, patients and their partners often come to the ultrasound laboratory with specific expectations and experiences (including visual ones) that augment their perception and produce complex circumstances for the reception of ultrasound images.
- 24 Petchesky, "Fetal Images", 136.
- 25 Lehner, "My Womb, the Mosh Pit", 548.
- 26 Maxim Gorky, "A review of the Lumière programme at the Nizhni-Novgorod Fair", trans. Leda Swan, in Jay Leyda, *Kino: A History of the Russian and Soviet Film* (London: George Allen and Unwin, 1960), 408.
- 27 Cited in Louis-Georges Schwartz, "Cinema and the Meaning of 'Life'", *Discourse* 28, no. 2 (2006): 7–27, <http://muse.jhu.edu/>, accessed November 15, 2017.
- 28 Lehner, "My Womb, the Mosh Pit", 546.
- 29 Quoted in: Wojciech Michera, *Piękna jako bestia. Przyczynek do teorii obrazu* (Warsaw: Wydawnictwa Uniwersytetu Warszawskiego, 2010), 262.

- 30 Thomas Mann, *The Magic Mountain*, trans. John E. Woods (New York: A. A. Knopf, 2005), 257.
- 31 Ibid., 260.
- 32 Ibid.
- 33 A similar confusion – in this case between the “empirical” and the “mythical” – is discussed by Rosalind Pollack Petchesky in “Fetal Images”, 137.
- 34 Mann, *The Magic Mountain*, 257.
- 35 Ibid., 260.
- 36 For an examination of Mann's critique of “objective” viewing technology, see the chapter “X-ray Vision in Thomas Mann's *The Magic Mountain*”, in José van Dijck, *The Transparent Body: A Cultural Analysis of Medical Imaging* (Seattle–London: University of Washington Press, 2005).
- 37 Mann, *The Magic Mountain*, 799.
- 38 Ibid., 795.
- 39 Ibid., 813.
- 40 Ibid., 805.
- 41 See, for example: André Bazin and Hugh Gray, “The Ontology of the Photographic Image”, *Film Quarterly* 13, no. 4 (1960): 4-9, <http://faculty.georgetown.edu/irvinem/theory/Bazin-Ontology-Photographic-Image.pdf> <http://faculty.georgetown.edu/irvinem/theory/Bazin-Ontology-Photographic-Image.pdf>
- 42 Ryan Lambie, “*Black Mirror* series 2 episode 1 spoiler-free review: 'Be Right Back'”, June 24, 2013, <http://www.denofgeek.com/tv/24209/black-mirror-series-2-episode-1-spoiler-free-review-be-right-back>, accessed April 18, 2017.
- 43 This source of the title of the series by Charles Brooker was brought to my attention by Olga Byrska; on the other hand, the mirror theme referenced in St. Paul's “Hymn to Love” is practically a clichéd media metaphor.
- 44 Jacek Dukaj, *Córka łupieżcy* (Kraków: Wydawnictwo Literackie, 2009).
- 45 The concept of “weak images” has a notable presence in contemporary literature on visual culture: weak (and strong) images have been written about by Gottfried Boehm

(cf. Boehm, *O obrazach i widzeniu. Antologia tekstów*, ed. Daria Kołacka, trans. Małgorzata Łukasiewicz, Anna Pieczyńska-Sulik [Kraków: Universitas, 2014]) and also in *Widok* by Marek Krajewski (see Krajewski, "Słabe obrazy – obrazy słabych", *Widok. Teorie i Praktyki Kultury Wizualnej* no. 9 [2015], <http://pismowidok.org/index.php/one/article/view/267/512>, accessed April 15, 2017); the category of "poor" images was proposed by Hito Steyerl (Steyerl, "In Defense of the Poor Image", *e-flux* no. 10 [2009], <http://www.e-flux.com/journal/10/61362/in-defense-of-the-poor-image/>, accessed November 23, 2017). I do not apply any of these perspectives in this essay (although all of them have likely influenced my understanding of images to some extent), instead combining – in the Mitchellian vein – the categories of "strength" and "weakness" with what we would consider to be the diversely motivated influence images have on reality, particularly human behaviour.

46 Petchesky, "Fetal Images".

47 Ibid., 138. Petchesky quotes Zoe Sofia here.

48 Ibid.

49 Ibid., 147.

50 Wojciech Michera discusses this in *Piękna jako bestia*, 259.

51 Ivry, "The Ultrasonic Picture Show", 200.

52 Ibid.

53 Taylor, *The Public Life of the Fetal Sonogram*, 77-115.

54 Ibid. 61.

55 Ibid.

56 Katha Pollitt, *Pro: Reclaiming Abortion Rights* (New York: Picador, 2014), 83.

57 Ibid.

58 Ibid., 81.

59 Ibid., 83. The original article by Mary Gatter, et al., "Relationship Between Ultrasound Viewing and Proceeding to Abortion", appeared in the journal *Obstetrics & Gynecology* 123, no. 1 (2014).

60 Mattie Kahn, "Is This the Ultrasound Generation? A reported look at the social impact of a Facebook feed full of sonogram images", *Lenny Letter* no. 33, May 11, 2016, <http://www.lennyletter.com/politics/a382/is-this-the-ultrasound-generation/>

, accessed December 10, 2016.

61 Rapp, *Testing Women, Testing the Fetus*, 126.

62 The NIFTY test, which provides a precise estimate of the probability of the occurrence of genetic conditions, is now available in Poland. Due to its high price, however, it is paid for out of one's own pocket, and therefore is most likely available to women who use the entire range of medical services recommended during pregnancy.

63 Nicholas Mirzoeff, *How to See the World: An Introduction to Images, from Self-Portraits to Selfies, Maps to Movies, and More* (New York: Basic Books, 2016).

64 See, for example: Alain Renaud, "L'image numérique ou la catastrophe technologique des image", in *3e Semaine Internationale de Vidéo Saint-Gervais Genève*, ed. André Iten (Genève 1989), 24; Matylda Szewczyk, *W stronę wirtualności. Praktyki artystyczne kina współczesnego* (Warsaw: Wydawnictwo IBL PAN, 2015), 107-121.

65 Lehner, "My Womb, the Mosh Pit", 547.

66 Rapp, *Testing Women, Testing the Fetus*, 128.

67 Lehner, "My Womb, the Mosh Pit", 546.