

PATRICIA PISTERS

METALLURGIC FASHION Sartorial Transformations in Changing Techno-Mediated Worlds

Abstract

This essay investigates the concept of metallurgic fashion by looking at three designers who have all worked with metals and metallurgic principles: Paco Rabanne's metal dresses in the 1960s, Alexander McQueen's harnessed models in the 1990s, and the high-tech alchemical designs of Iris van Herpen since 2007. While 'following the metals' in their sartorial transformations, I will investigate the specific techno-media context in which the specific metallurgic designs could come about. I will argue that these fashion designers and the specific metallurgic characteristics of their creations should be read in relation to the technological and media developments in, respectively, the Space Age and the optimism of conquering the future, the darker sides of the collective unconscious explored in the Video Age, and the alchemical transmutations of media and materials in the Digital Age. The fashion designers whose work is explored here demonstrate how their creative work is linked to, investigates and comments on their time.

Keywords

Metallurgy; media; space age; Paco Rabanne; Alexander McQueen; Iris van Herpen.

*It was a perfect time to think silver. Silver was the future.
It was spacey. Astronauts wore silver suits and their equipment was silver too.
And silver was the past. The silver screen. Hollywood actresses on silver sets.
And maybe more than anything else, silver was narcissism.
Mirrors were backed with silver.*

Andy Warhol¹

In the 1960s Andy Warhol's Silver Factory in New York was the place where underground and pop culture, avant-garde art and fashion industry came together. Artists, models and superstar took 'a walk on the wild side' at hip parties and collaborated with Warhol to make art on silk screens, to shoot experimental films and create an iconic 'fashionating' scene where silver was the leading theme. I will take Warhol's preference for silver as a starting point to follow several fashion designers who can be considered as metallurgic designers. The concept of metallurgy was introduced as a concept by Deleuze and Guattary in 1980 in their book *A Thousand Plateaus* when they argue that metal is the most important conductor of all matter; miners, metallurgists and artisans

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¹ Quoted from the documentary *Andy Warhol's Silver Factory* (Rick Burns, 2006).

are its first transformers and they deserve our attention². The concept needs more exploration than I can give here, where I will simply look at fashion designers who all work at some point with metals in their creative process³. While I am not claiming that these couturiers work exclusively with metals, I do take the metallic materials in their designs as a guiding principle to unfold metallurgical dimensions in their works. I will examine Paco Rabanne's metal dresses in the 1960s, Alexander McQueen's harnessed models of the 1990s and early 2000s, and the almost alchemical designs of Iris van Herpen in the last decade, since 2007. While following the metals in their sartorial transformations, I will investigate the specific techno-media context in which the specific metallurgic designs could come about. As such I suggest that each metallurgic dress code is to be seen as connected to a larger contextual assemblage: the Space Age, the Video Age and the Digital Age respectively. In this way I hope to demonstrate that even a metal dress enfolds many hidden layers, stories about the past and the future that both reflect and are interwoven with developments in film- and media culture in what could be called 'fashionating media ecologies'.

I. A PERFECT TIME TO THINK SILVER

Andy Warhol was in love with silver. As evident from the quote at the beginning of this article, for Warhol the sixties were the perfect time to think silver. Silver offered fashionable access to both the past and the future. Because of its reflective qualities the Hollywood screens were pigmented with silver, which made black and white photography stand out much better. Photography in itself was only possible because of silver halide salts and silver gelatin. In photography and film, silver allowed imagination to take shape in image making. So iconic Hollywood actresses on silver sets, on the silver screen and glamorous photographs glowed in silver. Warhol captured and transformed the sparks of Hollywood stars in the magic and appeal of his studio. In 1963 he asked photographer and filmmaker Billy Name to 'silverize' his studio loft on East 47th street in mid-Manhattan. All walls covered in silver tin foil and silver paint, all was shiny in The Factory. It gave Warhol's extravagant underground superstars the allure of glitter and glamour of Hollywood stars.

Classical Hollywood was in the 1960s already a nostalgic art form. Postwar cinema with its light weight camera's allowed shooting in the streets and new waves in cinema created a different aesthetic style; iconic stars of the time, such as Brigitte Bardot, were less studio bound icons of the silver screen. Silver, however, signified not only the past but also the future. In the 1960s Space travel took shape and became part of the collective unconscious; this was picked up at its incipience by Warhol and his factory scene, where all things silver also radiated the optimism and thrill of the Space Age. So much so that Silver was the dress code at Warhol's parties. Astronaut suits were silver and shiny and spoke to the imagination of millions of people. But it was more than a fashionable fascination. The Space Age, its shiny technology, and the silver suits of the astronauts did not just superficially translate into fashion. There is a deeper connection

² G. Deleuze, F. Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, translated by B. Massumi, London: The Athlone Press, 1988, 404-423.

³ This essay is part of a larger project on the idea of the filmmaker as metallurgist. See P. Pisters, "The Filmmaker as Metallurgist: Political Cinema and World Memory", *Film-Philosophy* (2016): 149-167. See also the series of films on Metallurgy, Media and Minds at www.patriciapisters.com.

to fashion and Space traveling hidden in the silver frocks of Warhol's Factory. And here we can begin to see how a techno-mediated ecological landscape full of connections between different threads (of silver and other strings of metal and their metallurgical transformations) begins to unravel.

2. THE NEW LOOK, WOMEN'S UNDERWEAR AND SPACESUITS

In his book *Spacesuit: Fashioning Apollo*, Nicolas de Monchaux uncovers interesting connections between Space travel, fashion and media culture⁴. Monchaux points out how in postwar France Christian Dior's fashion innovations in 1947 that came to be known as The New Look was highly influential beyond the world of fashion. Dior wanted to bring back the female form; he used lots of fabric in his elegant and extravagant designs that were revolutionary after the sobriety and scarceness of the Second World War. Dior's approach included the production of what Roland Barthes later would call the 'fashion system'⁵. Besides a sensational change in women's dress, The New Look introduced a way of thinking about a fashion system, a networked ecology of material production that included designers and goods, magazines, photographers, writers, and consumers, all mediated in a transnational image culture.

On the other side of the Atlantic the couture phrase 'new look' came to stand for a whole range of postwar transformations: "From dressing gowns to government policy, the phrase 'new look' moved beyond even the colossal power of postwar marketing to describe all those jarring elements that the media-rich, newly industrialized United States found itself confronting after 1945"⁶. In 1953 Chief of Staff Admiral Arthur Redford gave a speech about president Eisenhower's defense planning that was entitled "The 'New Look' in Defense Planning", which included a "refashioning of the defense establishment [...] rearranging the financial and organizational priorities by which the Cold War was waged"⁷. Eisenhower's New Look also included a missile program to Space that would eventually lead to the Apollo mission to the moon in 1969.

Besides the idea of the New Look as an 'eco-system' of military-industrial-media complex, there are also more direct links between Dior's garments and space suits. As Monchaux demonstrates, the space suit of 1969 and the most popular Dior girdle of 1949 shared a common manufacturer. In the beginning of the Space Age green military suits were literally sprayed silver to give astronauts a futuristic look: science fiction films such as *Air Hawks* (Albert Rogell, 1935) and *The Day the Earth Stood Still* (Robert Wise, 1951) had already imagined space traveling in silver suits and thus these cinematographic imaginations were part of the 'new look-system'. However, more than spraying silver was needed to stand the extra-orbital conditions of actual Space voyages. The United States government issued a competition for design and manufacturing of space suits for American astronauts. The International Latex Corporation, known for their fabrication of women's bras and girdles as Playtex, triumphed over the more politically connected, engineering-driven Hamilton-Standard to win the Apollo lunar space-suit contract. Rather than a military-industrial manufacturer, it was a company

⁴ N. de Monchaux, *Spacesuit: Fashioning Apollo*, Cambridge, Mass.-London: MIT Press, 2011.

⁵ R. Barthes, *The Fashion System*, translated by M. Ward, R. Howard, Los Angeles: University of California Press, 1990.

⁶ Monchaux, *Spacesuit*, p. 31.

⁷ *Ibid.*, 37.

specialized in women's undergarment who were to create extra-orbital clothing. The spacesuits were handmade by seamstresses who had to work with incredible precision to connect the twenty-one layers of different tissues (among which a silver tin foil thermal space blanket) in each suit to ensure safety, comfort and mobility. An X-ray machine was installed to detect unremoved pins, less than a sixty-fourth of an inch in only one direction of the seam of tolerance was allowed, and seamstresses and glue dippers worked nevertheless according to military protocol. "Only two decades after The New Look, when an American man stood on the surface of the moon and his photograph beamed round the globe, his garments would be as restrictive as a 1940s rubber girdle-and made of the same material"⁸. Both Dior and Eisenhower presented a new look that adapted the body to the technical and mediated postwar world. The eventual moon landing in 1969, transmitted live on television, laid the foundations of the modern 24/7 broadcast system. The new look had gone into space, fashioning Apollo was a large part of the ecologies of the new look.

3. PACO RABANNE'S UNWEARABLE METAL DRESSES

It is in the context of this new world and new looks that Paco Rabanne entered the world of fashion. Rabanne had started his career as a jewelry maker for Dior and other fashion designers. In 1966 Rabanne released his first collection entitled "12 Unwearable Dresses in Contemporary Materials". The collection marked the beginning of Rabanne's view of design as a form of experimentation that used uncommon materials. Rabanne's handmade created clothing were pieces of art works: unusual fabrics, hammered metal, knitted fur, aluminium jersey, paper, fluorescent leather, plastic and fiber glass have all been used in his creations that emphasized the modern postwar world and new ways of dress. Nicknamed the "metal worker", by Coco Chanel, Rabanne's aversion to needle and thread made him a revolutionary metallurgist of the fashion world. Inspired by armors, shields and chain mails, Rabanne is the first Metal Couturier⁹. He deterritorialized combat outfits and 'shielding garments' into a sprawling everywhere in popular culture¹⁰.

Salvador Dali was a big fan of Rabanne and there is indeed a surreal playfulness in Rabanne's transgressive designs. Fashion photographer Jean Clemmer made a series of famous erotic images of models in Rabanne dresses that added a layer of sensuality to the metals. And soon enough, Rabanne was the preferred couturier for popular stars such as Françoise Hardy, Jane Birkin and Serge Gainsbourg, France Gall and Brigitte Bardot. Jane Fonda's spacy outfits in cult science fiction film *Barbarella* (Roger Vadim, 1969) are made by Rabanne and his metal dresses appear also at other places in Hollywood, for instance they were worn by Audrey Hepburn in *Two for the Road* (Stanley Donen, 1967) and were the uniforms of the female guards in *Casino Royale* (John Huston *et al.*, 1967). And so Rabanne's revolutionary unweearable metal dresses, meant as an artistic provocation, became part of the popular imagination that resonated with the silvery future of the Space Age.

⁸ *Ibid.*, 33.

⁹ Contemporary Metal Couturiers that work in the tradition of Rabanne are amongst others Manuel Albarranand Laurel de Wit (Laurelux).

¹⁰ See A. Warwick, D. Cavallaro, *Fashioning the Frame: Boundaries, Dress and the Body*, Oxford-New York: Berg, 1998, 46-94.

Within the world of fashion, Rabanne introduced the first black model on the catwalk Donyale Luna. Luna appeared as the first black super model on the cover of *Vogue* (1966) and other fashion magazines, such as *Harper's Bazaar*, often dressed in Paco Rabanne outfits. A few years earlier Andy Warhol had already shot a few films with Luna (*Screentest: Donyale Luna* (1964), *Camp* (1965) and *Donyale Luna* (1967), where she appeared as Snow White). And so here we can get another glimpse of the fashion system as a media ecological assemblage that slowly but surely transforms our (image of) the world. Luna also acts in the fashion parody film *Qui êtes-vous, Polly Maggoo?* (1966), made by fashion photographer William Klein and which I inspired by his time at *Vogue*. The film is an exuberant satire of the fashion industry, starring Grayson Hall as a bitchy magazine editor based on Diana Vreeland. In this film the metallurgic fashion designer (referring clearly to Paco Rabanne) is more like a blacksmith cutting large pieces of silvery aluminum to hilarious proportions, dressing the models in shiny metal pipes and plates. After the metal catwalk show the magazine editor exclaims that the designer “has recreated woman for the nuclear age”. Dior and Eisenhower’s New Look meet here in absurdist hilarious ways with Warhol and Rabanne, all tightly connected to the media ecological landscape of the Space Age. Nevertheless, Rabanne, as part of an entire fashion system that includes popular media, high art and politics, had an important role as metallurgist in a modern postwar world. Today Rabanne’s fashion designs are still often metallic and spacy but his materials are more soft and pliable. Most of the transgressiveness of his creations has done its work, or at least he has helped to shift some of the norms of the fashion system, including bringing fashion into the art space and bringing diversity onto the catwalk.

4. ALEXANDER MCQUEEN’S VIDEO AGE TRANSFORMATIONS

The optimist futurism of the Space Age of the 1960s slowly faded in the 1970s (the last moon landing – Apollo 17 – took place in 1972). Clearly Alexander McQueen developed his ideas on fashion in a very different world. After his graduation show in 1992 from Central St. Martin’s, Alexander McQueen soon became another influential fashion metallurgist whose work stretched far beyond the catwalk. His deeply personally motivated couture shook not only the world of fashion but also cut more deeply into the collective unconscious of the 1990s and early 2000s. His shows and dresses were savagely theatrical, with each collection providing a total experience, which built the catwalk like a film stage. He was inspired by the Victorian Age, art history, photography and especially by cinema.

McQueen grew up in the 1980s video age and his fashion can only be seen in connection to this particularly filmic media ecology. His graduation show *Jack the Ripper Stalks his Victims*, obviously referred to the infamous Victorian serial killer; some of the garments were overlaid with portraits from magazines, including a young Johnny Depp in 1980s cult TV series *21 Jump Street*¹¹. His first Collection (autumn/winter 1993) was called *Taxi Driver*, inspired by Martin Scorsese’s famous film from 1976. This show was also in homage to his father who was a London black cabbie driver.

¹¹ See K. Bethune, “Encyclopedia of Collections” in *Alexander McQueen*, edited by C. Wilcox, London: V&A Publishing, 2015, 303-321. This book accompanied the exhibition *Alexander McQueen: Savage Beauty* in 2015 at the Victoria and Albert Museum in London. All factual references to McQueen’s shows are provided by Bethune’s extended overview.

The combination of references to his personal life and popular film culture would remain a returning element in his collections. McQueen had a preference for cult and horror classics. The spring/summer 1995 collection *The Birds* was obviously a gesture to Hitchcock and their shared love for cinema, suspense and ornithology¹². *The Hunger* (spring/summer 1996) appropriates the bloody vampire aesthetics of Tony Scott's homonymous film (1983) with David Bowie and Catherine Deneuve as sexy vampires. *The Omen* (Richard Donner, 1976) provided the fusion between human and animal in *Untitled*, McQueen's spring/summer 1998 collection. The collection *Joan* (autumn/winter 1998) was inspired by the sci-fi horror film *The Village of the Damned* (Wolf Rilla, 1960). *The Overlook* collection (autumn/winter 1999) referred to The Overlook Hotel in Stanley Kubrick's *The Shining* (1980). All these evocations of film worlds were also often expressed in the sound track of the catwalk shows and would remain a strong element in McQueen's creations until the last shows he staged before his untimely death in 2010: *The Horn of Plenty* (autumn/winter 2009) had the gothic and overabundance feeling of Terry Gilliam's film *Brazil* (1985); this show was dedicated to his mother and a reference the grotesque madness of western capitalism, including the entire fashion system. And *Plato's Atlantis* (collection spring/summer 2010), McQueen's final runway presentation in Paris-Bercy (6 October 2009) contains references to Ridley Scott's *Alien* (1979) and the artworks and special effects of H.R. Giger and James Cameron's *The Abyss* (1989). The otherworldly alien looking models, shifting and changing in blue watery light actually also seem to foreshadow Cameron's blue 3D creatures in *Avatar* (2009/2010). This show was a multi-media presentation and the first to be streamed over the internet. With McQueen's fashion shows we have entered a completely different ecosystem, where fashion and cinema are combined and transformed into awe-inspiring worlds full of sublime beauty and excruciating horror. So McQueen can be called an artisan-metallurgist for his power to transmute the personal and the mediated collective in highly original ways: "Anything I do is based on craftsmanship. A bit of tailoring, or a bit of woodwork, or be it anything else, you know. I try to involve a lot of handcrafted things"¹³.

5. METALS AND MADNESS

McQueen is also a metallurgist because, like Rabanne, he often uses metals in his designs. He bends the imagination of visual culture and draws out its sinister beauty through his frequent use of coiled corsets, chain mails, silver plated body armors, iron head pieces and helmets, steel frames placed around his models, uncomfortable metal mouth pieces, extended neck rings and other aggressive metal jewelry. In *The Horn of Plenty*, *Eshu* (autumn/winter 2000), *Dante* (autumn/winter 1996), *It's a Jungle out There* (autumn/winter 1997) and other shows, McQueen's models are armored and have a predatory or combatant look. McQueen himself appeared in *The Face* magazine (August 1998) as a dark knight in an armor designed by Terry English for John Boorman's film *Excalibur* (1981). McQueen collaborated with a small number of jewelers who were kindred metallurgist spirits, such as Shaun Leane and Sarah Harnarnee, "whose

¹² Hitchcock would return in the Autumn/Winter 2005 Collection *The Man who Knew too Much*.

¹³ Alexander McQueen, quoted by Caroline Evans, "Modelling McQueen: Hard Grace," in Wilcox, ed., *Alexander McQueen*, 189.

power to shock prompted her the description as ‘an angry young silversmith with a killer instinct’¹⁴.

The metals in McQueen’s garments have a very different effect than the more playfully erotic unwearable dresses of Paco Rabanne. These metals are more like protective shields, they empower McQueen’s female models, as they empower his own life. Many of the films that play in the unconscious of his collections deal with horror, pain and trauma’s inflicted by all kind of abuses: colonialism, capitalism (including the entire fashion industry), sickness, death, domestic violence and sexual abuses. As Andrew Wilson describes in *Blood beneath the Skin*, his biography about McQueen, McQueen had been sexually abused himself in his youth and his sister was entrapped in a violent marriage. He had a very turbulent (homosexual) love life. Toward the end of his life he suffered from heavy depression, especially after the suicide of his equally depressed friend and patron Isabella Blow¹⁵. By shielding and literally enforcing his models, McQueen also wanted to empower women and others in minoritarian power positions. What renders his metallurgic efforts to strengthen and protect the body even more powerful is the fact that all the aggressiveness in his work is accompanied by the fragility of sublime beauty.

Disturbingly beautiful was for instance VOSS (spring/summer 2001), where McQueen referred to film *The Green Mile* (Frank Darabont, 1999), about an inmate on death row. Here the catwalk was staged as a psychiatric ward. At the end of the show McQueen restaged Joel-Peter Witkin’s photograph Sanitarium (gelatin silver print, 1983), a surreal image of voluptuous naked woman wearing a silver mask and connected to tubes, covered by living moths. “VOSS offered a commentary on the politics of appearance, upending conventional ideals of beauty. For McQueen the body was a site for contravention, where normalcy was questioned and the spectacle of marginality was embraced and celebrated”¹⁶. By transgressing and transcending bodily norms, extending the body with a metal animalistic spine (reminiscent of David Cronenberg’s *Dead Ringers* instruments), or blending the human body with aquatic alien creatures, by defying the normal from the mad and mentally ill, McQueen created what Deleuze and Guattari would call Bodies without Organs¹⁷. Again there is much more to say about this concept than can be done here, but I’d just like to indicate here that Deleuze and Guattari refer to this concept to indicate a deep desire to transform and liberate the body, to extend it beyond the functions of the organism, beyond the stratifications into oppositions between human-non-human, self-other, man-woman, human-animal, organic-machinic. They see metal itself as the expression of the idea of nonorganic life: “Metal is neither a thing nor an organism, but a body without organs”¹⁸. And so here we see McQueen once more as a metallurgic fashion designer. It’s not just about the beauty of the dress and the model but about the transformation of our collective psyche, our social world, bending and reshaping our consciousness, our thinking through fashion, mediated through technology. In McQueen’s case these metallurgic fashion strategies were all connected to the media technology of film in the video age.

¹⁴ C. Philips, “Armoring the Body”, in *ibid.*, 203.

¹⁵ See also A. Wilson, *Alexander McQueen: Blood beneath the Skin*, London-New York: Simon & Schuster, 2015. This biography paints a lively portrait of the turbulent personal life of McQueen and explicitly mentions countless references to cinema as sources of inspiration for each show.

¹⁶ A. Bolton about VOSS, quoted in S. Brown, “Nightmares and Dreams”, in Wilcox, ed., *Alexander McQueen*, 286.

¹⁷ Deleuze, Guattari, *A Thousand Plateaus*, 149-166.

¹⁸ *Ibid.*, 411.

6. IRIS VAN HERPEN'S FRAGILE FUTURITIES

Van Herpen's first collection in 2007, after she graduated from ARTEZ institute of the arts in Arnhem (the Netherlands), was significantly called *Fragile Futurity*. In contrast to the optimism and playfulness of Rabanne's metal dresses of the space age, and different from the savage beauty and sublime horror of McQueen's armored fashion of the video age, in Van Herpen's work there is a very different relationship to technology. Working in the digital age her designs refer more to the precariousness of the contemporary world that is also referred to as the Anthropocene, the geological era where humans are recognized as having a significant impact on the earth's ecological systems¹⁹. Much more conscious of the fragility and vulnerability of the earth and the precariousness of planetary life, there is less focus on the (eroticism or horrors of) the body, and more a direct a metallurgic search for the possibilities of materiality in Van Herpen's collections. Her designs always start with a material. Van Herpen, too is an artisan as she designs a lot with handwork (plissé techniques, sewing), which she combines with high tech procedures such as 3-D prints, copper electroplating, magnetic resins, and other techniques that involve chemical treatments and digital designs, often in collaboration with other artists (architects, musicians, and other specialist high-tech artisans)²⁰. "I first make it by hand in the atelier, then we 3D-scan textures and start working with them on the computer", she says. "It's the more natural way"²¹.

The titles of Van Herpen's following collections and shows are equally very telling. In *Chemical Crows* (January 2008) she is a true alchemist of the New High Tech age. As alchemists had a passion for controlling and transmuting materials and tried to turn base metals into gold, so Van Herpen transformed the ribs of 700 children's umbrellas into shapes reminiscent of wings and feathers, a reference to the crows that lived around her studio; crows are animals known for their association with secrecy and symbolism. In *Refinery Smoke* (July 2008) Van Herpen translated the elusiveness of industrial smoke into specially woven metal gauze. She turned metal threads into an extremely soft and pliable material. The metal kept its characteristic of oxidation and Van Herpen considers this inherent chemical process as (visually) reflecting the dual aspect of industrial smoke: beautiful and poisonous. *Radiation Invasion* (September 2009) translates Herpen's question of what we could do with our daily (over)dose of electromagnetic waves and digital information streams if we could see them. In these designs the wearer seems to be surrounded by a whimsical complex of wavy rays, flickering patterns, vibrating particles, and reflecting pleats. The *Voltage* collection (January 2013) resents alchemist-like experiments controlling high voltage electricity and its interaction with the human body and focuses specifically on how the reaction of chemistry and electricity causes structures to respond to their environment and react as living beings. *Biopiracy* (March 2014) refers to DNA technology and the purchase of patents on our genes,

¹⁹ See for instance, J. Davies, *The Birth of the Anthropocene*, Berkeley: University of California Press, 2016.

²⁰ See the interview with Iris van Herpen and Sarah Schleuning in I. van Herpen, *Transforming Fashion*, Atlanta and Groningen: High Museum of Art and Groninger Museum, 2015. This book was published on the occasion of the exhibition *Iris van Herpen: Transforming Fashion* at the High Museum of Art, Atlanta (November 2015-May 2016). The descriptions of the collections are taken from this book and from the information on Van Herpen's website www.irisvanherpen.com.

²¹ O. Franklin Wallis, "Magnetic Dresses and Laser cut Feathers: The Designer behind Bjork and Beyonce. Interview with Iris van Herpen", *Wired*, 8 September 2016. Online <http://www.wired.co.uk/article/fashion-designer-iris-van-herpen>.

which put the question of ownership and bodily integrity at the heart of Van Herpen's show where models are vacuum packed between two layers of PVC. *Magnetic Motions* (September 2014) was inspired by Van Herpen's visit to the Large Hadron Collider in CeRN. In all these works we see how digital technology, materials of the earth and chemically transformed materials are part of her experiments and designs: metal satin, burned copper gauze, magnets, polyamide, silver Magiflex, metallic coated stripes, glass, calf leather, silver ECCO leather, silicone, mirror foil, iron filings, stainless steel, cotton, black glass crystals, cashmere, silk, nylon with water shine, photopolymer, viscose fabric, resin, thermoformed acrylic are but a selection of the materials she uses, and that she metallurgically transforms into dresses that question the contemporary in poignantly beautiful ways²².

Van Herpen's couture is worn by celebrities such as Lady Gaga, Beyoncé, and Bjork. Bjork's organic high tech dress in her Biophilia tour (2011), designed by Van Herpen, are a perfect match with Bjork's music performances. Both artists are looking for new ways of connecting, transgressing the boundaries between nature, technology and the body. For *Quaquaversal* (summer/spring 2016) Van Herpen invited Gwendoline Christie, star of *Game of Thrones* to remain motionless for the entire show, as a trio of animatronic trees surrounding her began to move, as they were weaving the soft, fishnet-like dress spread out in a circle around her. *Quaquaversal* means "going off in all directions", and refers to living tree bridges in India, questioning the notion of a finished product and offering instead a 'rhizomatically' growing one. So the creation of an open work, a dress that changes in time (by rusting), grows (by being made on the spot) or even transforms in contact with other materials (something that is possible with 4D laser techniques in which shapes mutate in time) are but some of the metallurgical procedures that Van Herpen in her couture performs. As for Paco Rabanne and Alexander McQueen, for van Herpen, it is always about more than just aesthetics. Fashion, she explains, has the capability "to challenge the way we think, and the way we make something"²³.

In *Lucid* (autumn/winter 2016) optical light screens created mirrored rainbow effects on garments that look like soap bubbles and were made from transparent hexagonal laser-cut elements, which are connected with translucent flexible tubes. Both the models and the audience are mirrored as one in the show space. And this brings us back to Andy Warhol, who connected silver to the past, the future and ultimately to the mirror: "silver was narcissism"²⁴. I hope to have demonstrated that the fashion designers that I have discussed go beyond fashion as a narcissistic embellishment. If anything their work mirrors, reflects, bends and co-constructs particular media environments. They are all metallurgists that bend our habitual connections to the world, to nature, to the other by creating, each in their own ways "Bodies without Organs", forging and welding new connections to the world, acknowledging techno-imagination that keep on changing and growing in the interconnected ecologies of our environment (nature), our social relations (to the other, communities) and our perceptions and consciousness (mental states of being). The optimism of Rabanne's silvery space age fashion, was molded and transformed into the gothic sublime of the video age in McQueen's metallurgic garments, and we have now arrived in the digital age of the Anthropocene where Iris van Herpen brings high-tech back to earth, proposing our intricate relations to both technology and

²² Materials as described in Iris van Herpen, *Transforming Fashion*, selected from various collections.

²³ Franklin Wallis, "Magnetic Dresses and Laser cut Feathers".

²⁴ Warhol in *Andy Warhol's Silver Factory*, quoted at the beginning of this article.

nature. Instead of sewing astronaut suits for men to go to the moon like the seamstress of Playtex for the Apollo missions, Van Herpen explores technological tools to alchemically alter the materials we have on earth, investigating and questioning the fragility and precariousness of our world and our future on this planet by way of dress.