Dust, vacuum cleaners, (war) machines and the disappearance of the interior

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ABSTRACT

Working on the ambiguity and circularity intrinsic to the operation of 'dusting', this paper explores the role of dust in the definition, organisation and dissolution of the domestic interior in its 20th century representations. An analysis of images from the visual arts, film, and advertising, shows how their readings of dusting offer contradictory interpretations of space that blur the distinction of interior and exterior and expose the permeability of their boundaries. In Richard Hamilton's iconic collage of 1956, 'what makes today's homes so different, so appealing' (as its title recites), is the fact that, behind the exposed bodies of the inhabitants of the modern home and besides the pervasive presence of telecommunication media, the act of dusting is here performed by an alter-ego of the female inhabitant reduced to a diminutive appendage of the vacuum cleaner. The new dusting appliance not only removes dust but, participating in the dynamics of the mediatic and machinic centre-less interior, it sucks up (together with dust), all familiar connotations of domesticity. Vacuumed, the interior is fragmented, multiplied and centrifugally dispersed; made permeable and exposed it is no longer separable from world events. Other examples follow, from literary divertissement (Graham Greene's facetious political satire), to tongue-in-cheek high art (Jeff Koons's vacuum cleaner taxonomies), to consumerism and advertising (Dyson's 1990s high-tech commercials), to show that while dust continues to return, invincible, the enclosures and (false) security of the 20th century interior are, more than vacuumed, literally and lightly laughed away.

Works of fiction and the visual arts produced in the second half of the 20th century offer a critical and often witty insight into a technological obsession with the removal of dust. In time, the vacuum cleaner, symbol and object of the mechanisation of cleaning, takes different forms and significations, and its representations provide visual interpretations of dust and its removal in relation to the definition, organisation and dissolution of the contemporary domestic interior, offering contradictory interpretations and inhabitations of space that blur the distinction of interior and exterior and expose the fragility of their boundaries.

Attitudes towards dust have changed culturally and evolved over time. Walter Benjamin's writings on 19th century Paris (mainly in the massive Das Passagen-Werk! assembled between 1927 and 1940) have shown how in European culture dust traditionally denoted the familiar, comfortable, but often suffocating space of the bourgeois interior, while in the city it accumulated on the obsolete products and spaces of consumerist society (shopping arcades). Dust settles in time, measures history, and preserves the past and its values, but as it coats objects, at the same time it literally destroys the material traces of the past from within.

A lot is at stake in the management and removal of dust, and its cultural implications go well beyond notions of domestic cleanliness. Dust derives from the dissipation and dispersal of materials, things and bodies. It always has to do with an undoing. Heterogeneous, made of particles of different origin, dust is a compound in which constitutive connections have been loosened or dissolved. Dust defies order and control, both in its internal constitution and in its environmental dispersion and re-aggregation. A disturbance of order and a reminder of our own perishable nature, dust is removed because it threatens not only cleanliness but also logic and control. In his short polemical text 'Poussiere' (1929) Georges Bataille had observed how 'dust constantly invade[s] earthly habitations and uniformly defile[s] them: ... making [them] ready... for the imminent occupation of the obsessions, phantoms, spectres'. For Bataille the operation of removing dust with a vacuum cleaner therefore contributes 'as much as the most positivists of scientists to dispelling the injurious phantoms that cleanliness and logic abhor.'

Traditionally, cleaning was identified as woman's chore, and domestic dust and woman had a privileged and yet conflicting relationship, which was clearly reflected in visual representations. Woman was in charge of making dust disappear, as if she could physically introject it and as if the vacuum cleaner could become a physical extension of her body. As the process of removing dust became increasingly scientific and mechanical (and transparent) it also became more and more masculine – or so it may seem. The relationship with dust, which is no longer hidden but displayed, becomes ambiguous. As dusting becomes more mechanised and is progressively removed from the body, the body itself becomes de-gendered first, and then altogether disembodied. And yet, as we get rid of dirt, of our body and of our bodily functions (cleaning chores included), the cleaned up dust becomes more and more visible: it can now be displayed as long as it is controlled. From acceptance to concealment, to removal, control and display, the management of dust in the domestic space goes in parallel with the dismantling of the domestic interior in the 20th century, and with re-conceptualisations of privacy, cleanliness and domestic economy.

PROLOGUE: WOMAN AS DUSTY INTERIOR

There was one in days of old who was imprisoned In a chamber like a grave, within a tower: Fair Danae, who in darkness was held, and never saw the pure daylight. Antigone [944-946] ⁴

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Perseus did accidentally kill his grandfather.

But what happens of Danae, the locked-in woman who, unlike Antigone, remains an interior and in interior, penetrated by dust but incapable of changing her sort through it? Locked in vain to prevent her from procreating, locked again because she did, she remains passive throughout her life, moved by men and events. An anti-Antigone, she confirms and exasperates the role of woman in interior to the point that for her the oikos becomes first a locked room and then a locked box. For Danae, dust remains a sign of passivity, and of man's domination and control over her. And yet the myth itself remains ambiguous. In the middle ages Danae is used as a symbol of chastity, the example of the union of the divinity with a virgin, and the theme is interpreted as a pre-figuration of the Annunciation to the Virgin Mary. Then, through time, different painters give the myth a sexual reading, representing Danae as a languid nude, usually reclining on a bed and propped against soft cushions, who looks upwards while a shower of golden dust falls on her. In Andrea Correggio's painting (Danae, 1530 ca., Galleria Borghese, Rome) the golden dust remains a cloud suspended above Danae and about to fall in her lap. Then in Titian's sensual reading, an explosion of golden dust hovers over the reclining nude (Danae, 1544-46, Museo di Capodimonte, Naples). The golden spermatic cloud produces dust, but also coins: five years later Titian paints another Danae for king Philip II of Spain (Danae with a Nurse,

Thus sings of Danae the chorus in Sophocles's tragedy Antigone. For 1549-50, Museo Nacional del Prado, Madrid). Here coins fall with her crime – performing a ritual burial extra moenia, thus dislocating greater rapidity, violently thrust, and the little Cupid dodging the golden the interior of the oikos and exposing it in the public of the polis invasion is replaced by an old maidservant or pimp who promptly and outside the palace – Antigone is condemned by King Creon to collects the coins in her apron. Orazio Gentileschi (Danae, 1621 ca., be buried alive in a cave. The sentence confirms the ambiguity of Museum of Art, Cleveland) transforms the shower of gold dust into her in-between condition: she who illegally scattered sacred burial golden coins falling into Danae's hands. Then the representation of dust in the open is to die locked in a cave. Different is the sort of Danae evolves further, with the full transformation of the golden Danae, instrumental human figure in Greek mythology, who lives her dust into golden coins that violently hit her bed, as in Max Slevogt's passivity in a cave, cage or chest, exasperating the 'in interior' role of Danae (1875, Lenbachhaus, Munich), or as they more gently wrap woman. Danae was the only daughter of Acrisius, King of Argo, who, and penetrate her languid sleeping body, as in Gustav Klimt's version having been warned by the Oracle that he would be killed by one (Danae, 1907-08, private collection, Graz). Danae is by now turned of his grandchildren, kept Danae imprisoned in a tower in a room into an upper class prostitute whose body is bought and possessed sealed by bronze doors. But Zeus, who had fallen in love with Danae, by minted coins, accompanied in some cases by a maid who collects visited her by penetrating the tower and impregnating Danae in form the golden rain in an apron. No longer divine sperm impregnating a of a shower of gold dust. When Acrisius found out that the baby virgin, the golden dust becomes the currency of exchange for the Perseus had been born he had mother and son locked into a chest commodified access to the interior of woman's body. The reading of and abandoned at sea. They were of course rescued, and eventually the myth, beyond its obvious sexual connotations, seems to suggest that dust belongs to woman, or that it is the role of woman to interiorise it, absorb it, to take it in so as to transform it (and herself).⁵



In 1972 newspaper photographer David McEnery ironically commented on the connection between woman and dust, womb and vacuum cleaner, motherhood and domesticity, with his staged picture Like Dust, or Hoover Pregmatic. Here a heavily pregnant young mother wearing a short housedness operates a vacuum cleaner in a stereotypical British 1970s middle-class front room, with telephone and TV set on display. The similarity of the vacuum cleaner's dust-bag and the woman's belly attracts the curiosity (and concern) of the little daughter who is assisting Mummy in her domestic chores. And while the housewife here is a miniskirt-wearing, modern (emancipated?) woman, she remains attached to a plush domestic interior of carpet-cum-rug and to a vacuum cleaner that is disturbingly shaped like her: the new Danae is a (visibly pregnant) woman/vacuum-cleaner. This Danae is multiple and has already reproduced: the vacuum cleaner's dust-bag shaped like the woman's belly and the presence of the little daughter seems to suggest that the forthcoming sibling will be not a menacing Perseus but yet another girl. Sooner or later one of them will make it out of the box.

ENTER THE VACUUM CLEANER (LITERALLY)

In 1956 British artist Richard Hamilton produced the iconic collage Just what is it that makes today's homes so different, so appealing? for the London exhibition This is Tomorrow (Figure 1). What is so different and so appealing in the liberated domestic space constructed in this image, a 1950s living room littered with modern props and telecommunication media? The lady of the house is seductively propped on the edge of a minimal modern couch; naked, only her little brain sheltered by a lampshade hat (is she a woman or a floor lamp?). She proffers her adorned breasts to her briefs-wearing muscleflexing male companion, who is shielding his genitals behind a semi-erect racket inscribed with the term 'POP' in large letters. Yet, both her gaze and his suggest that she is in fact displaying them to the viewer and that, faced with the choice, her body-builder male partner would prefer the more fleshy and more substantial tinned ham that sits on the coffee table between them. In the room with this disconnected and exposed couple, an inconspicuous, tiny lady properly attired in a red dress operates a vacuum cleaner. Working in the background of the image and on the threshold of the apartment, at the top of stairs that are too big for her, she seems plugged to the machine rather than controlling it. As an umbilical chord, the suction duct attaches her to the spherical volume of the vacuum cleaner, a sort of expelled uterus which is ultimately the only remaining interior in this otherwise exposed and centre-less domestic space. Hamilton's collage constructs not only a manifesto of pop art and a critique of consumerism, but proposes also an image of a domestic interior that refuses dust and, as Elio Grazioli has observed, presents itself as clean and perfectly fit, glossy and well groomed, banishing whatever might perturb or affect it. But, does it? 'Vacuumed', as if they had been suctioned into the cleaning appliance, all the familiar connotations of domesticity are here dissipated, fragmented, multiplied, and centrifugally dispersed. Broken open and made permeable, the interior is no longer separable and sheltered from world events, but invaded by them.

In this recreated domestic space, the image of the woman is equally fragmented and questioned. Stripped of her exterior cladding she becomes a home accessory, reduced to a light fixture in the bachelor's pad. She is also deprived of an interior (which is transferred to the vacuum cleaner), and exploded into pieces, multiplied into many little women distributed on the margins

Figure 1: David McEnery, Like Dust, or Hoover Pregmatic, 1972. Image courtesy of Rex Features, London.

'romanced' in a comics poster on the wall; idealised and safely Pile vacuum cleaner from his shop, take it apart and draw its remote on the TV screen where she is further mediated by a parts: sprayer, needle-jet, nozzle, and telescopic tube are scaled telephone conversation (represented and connected but not up (one inch representing three feet), and presented to the physically present, she is therefore twice remote); and yet she Service as components of a secret military atomic plant being still performs her domestic chores, although she is reduced here built in the mountains of Cuba. To further clarify the scale and to an attachment of the machine.

In 1958 the vacuum cleaner as space-defining machine is appropriated in Graham Greene's novel Our Man in Havana,6 a bittersweet comedy of vacuum cleaners and espionage set. The vacuum cleaner disconnected from feminine identifications not very profitable business in a city of recurring power outages workings are exposed. and concerned more with survival and politics than with the removal of dust. Wormold (his name a fitting composite of the 'worm' and 'mold' that Georges Bataille had associated with dust), short of money and always trying to keep up with the extravagant lifestyle of his teenaged daughter, accepts the undercover job offered to him by the Secret Service: he becomes a spy. But what can a vacuum cleaner retailer know or find out about international plots and military developments? As he has nothing to report, he invents facts and characters and pretends to recruit agents and to discover secret constructions. The plans of secret weapons that he reports to the Secret Service are vacuum cleaners that he sells: domestic appliances turned into collage, the Midget Make-Easy Air-Powered Suction Small Home hermaphrodites that the vacuum cleaners are' (Figure 2),

of Hamilton's image, each performing her own task. She is Cleaner. All Wormold needs to do then, is to take an Atomic for pretense of realism he adds to his drawings 'a little man two inches high below the nozzle. He dressed him neatly in a dark suit, and gave him a bowler hat and an umbrella.'7

in Cold War Havana. In what Green called an 'entertainment', or associations, is no longer an enclosed container of dust but the vacuum cleaners' technical drawings and specifications are an x-ray-scanned machine whose workings are now exposed. presented as those of Cuban atomic plants threatening potential Appropriated by man (an English spy in bowler hat), enlarged world destruction. Very much set in its own times, the novel was and turned into a nuclear weapon, it abandons the domestic hurriedly turned into a movie (directed by Carol Reed), one space to operate on the stage of international politics. There of the last filmed in Cuba before Fidel Castro took power in is no safe shelter any more, no unreachable interior left: as January 1959. In the story, Jim Wormold (played in the film by the enclosure of the domestic interior dissolves, the vacuum Alec Guinness) sells vacuum cleaners in Havana, an unlikely and cleaner becomes transparent, and its contents and its

EXIT THE INTERIOR

In the mid-eighties, Jeff Koons de-sexualises the vacuum cleaner, producing a taxonomy of hermaphrodites removed from the domestic space and reduced to objects of display, safely placed in glazed and lit display cases to gather dust on their carapace rather

In his study of dust in art, Elio Grazioli notes the shift performed by these works ('almost a reversal'8) from Hamilton's earlier critical reference to 'the vacuum cleaner as home appliance of the nothing else than the blueprints of the technical drawings of the hedonistic consumeristic and conditioned metropolitan society of the nineteen-fifties and sixties'. A 'postmodern promise of weapons of mass destruction. And the job is not too difficult or happiness' 10 Koons's vacuum cleaners, encased, sealed and divided too absurd, albeit comically so: Phastkleaners, the firm Wormold as they are, still propose a world beyond division, where exposure works for produces machines named, in very late-1950s fashion: does not threaten and enclosure does not segregate: while Turbo Jet, marketed with the slogan 'It beats as it sweeps as it Koons's 'vitrine' refers to Marcel Duchamp's Grand Verre, 'this one is cleans'; Atomic Pile Suction Cleaner, a name that promises total entirely inhabited by vacuum cleaners: even when divided in two cleansing; and, for those who cannot afford more or better, or vertical parts marked by neon tubes, they are not one for the who live in compact modern dwellings like the one in Hamilton's Bride and the other for the Bachelors, but both for this sort of



Koons himself is guite clear about his use of the vacuum cleaner: it is, he explains, 'a machine that breathes, and I have chosen it for its sexuality, because I believe that the vacuum cleaner possesses both sexes, masculine and feminine [...] they are machines that suck, therefore they have large holes [...] but they also have phallic attachments. But I see them as a neutral sexuality [...]'.12

invulnerable, [...] purely [displayed] in its presence, suspended cleaner does not clog and does not lose suction).

and yet absolute, closed, protected, accomplished, 'immortal". 13 And so these unusable objects become the prefiguration of the completeness they wish to everybody, fetishes of a perfection and happiness promised to everyone.'14 It seems inevitable here to refer to the fairy tale of Sleeping Beauty, slumbered and preserved in her crystal coffin and dormant castle, for whom 'eternity' only lasts one hundred years. Koons's vacuum cleaners, useless appliances made incapable of performing, collect dust on their outside. Frozen, switched off, removed from their home and their use, they are framed and displayed as aesthetic objects of contemplation, supposedly offered to sedate the observer and grant a sense of security and protection. But what security, what protection? The de-functionalised machine is perhaps no longer a threat, but the apparent completeness and perfection offered by the postmodern object continue to incorporate the machine: reduced to perform only on the surface in a dust-collecting faciality, the trapped and de-activated vacuum cleaner remains a dormant machine – a hermaphrodite Sleeping Beauty. One wonders when the prince/princess will come.

While Koons's hermaphrodite objects lie asleep, apparently harmless, a new generation of highly functional vacuum cleaners is being developed into technological machines, which combine high design with the aesthetic of war machines. Vacuuming is no longer a chore but a war to be won, and while the machine loses its dust bag, and with it all associations to a female interiority, it 'never loses suction'. 15 In 1993, after 15 years of research, 5127 prototypes, and trial production and distribution on the Japanese market, UK inventor and entrepreneur James Dyson launched his first vacuum cleaner, the DC01, with patented Dyson Dual cyclone™ technology, heralded as 'the first vacuum cleaner that doesn't lose suction'. The Dyson Dual cyclone™ technology creates a centrifugal force in the airflow of the vacuum cleaner, which spins out the suctioned dirt and debris to be collected in a clear plastic bin. The new machine without a concealing interior does not collect dust on filters and in bags, but organises it by centrifugal force: spinning to empty the centre, it separates dust from the air stream and collects For Grazioli the hermaphroditism or neutral sexuality attributed to the it on the outer surface of its exposed removable interior (and machine (deprived of its use), makes it untouched and untouchable, because dust is not accumulated but spun out, the new vacuum

Figure 2: Jeff Koons, New Hoover Deluxe Shampoo Polishers, New Hoover Quik-Broom, New Shelton Wet/Dry 5 Gallon, New Shelton Wet/Drv 10 Gallon Tribledecker, 1981-1987. Three Hoover Deluxe Shamboo-Polishers, one Ouik-Broom, one Shelton Wet/Dry 5 Gallon, one Shelton Wet/Dry 10 Gallon, acrylic, fluorescent lights, (231.1 x 137.2 x 71.1 cm (91 x 54 x 28 inches) © Jeff Koons. Image courtesy of the artist.

post-postmodern domestic space, which, half a century after so appealing, and is now completely open, having lost its boundaries and enclosures: even that which is to be disposed is here exhibited with scientific voyeurism.

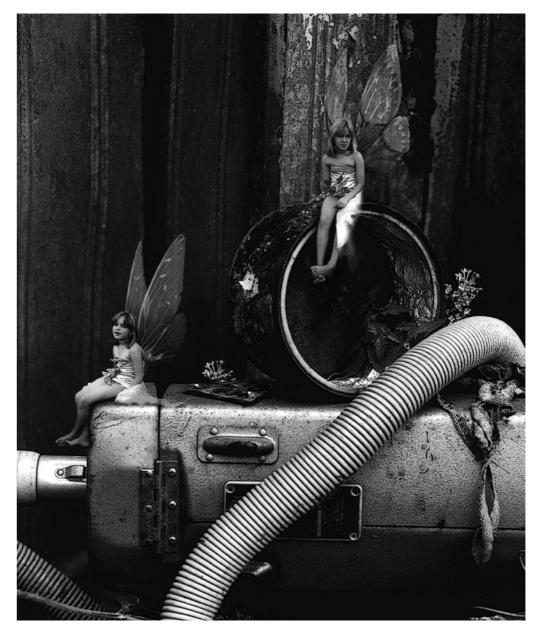


complemented by an improved motility and versatility of the sign of technological progress, and the aggressive space-control machine. The Ball, which rolls on a large ball rather than on wheels, machines of a past future become in turn discarded accessories. seems to have been designed more for fast moving than for Gone also is the interior.

A series of clones ensued, in an escalation reminiscent of vacuum cleaning (Figure 3). With the motor mounted inside the Greene's fiction: in 1996 the DC02 Absolute, with a bacteria-ball itself, a low centre of gravity, and articulated on a single pivot killing screen; in 1998 the light and compact DC05. In 2001, point, the Ball glides smoothly into awkward spaces. This sanitised the DC07 vacuum cleaner introduces the Root8Cyclone™ warrior combines the cyclone technology with easy bin-emptying technology which multiplies the two original air cyclones through its base, and is powerful enough to collect large debris dividing the air stream into 8 smaller ones; in 2002 the DC08 while moving like a racing car. A post-postmodern machine, The follows, with 12 cyclones; and so on. This is the 'machine without Ball redefines once again the performance of the vacuum cleaner, interiors' par excellence. The paper-lined, fabric-enveloped, this time in the function of its movement, and it is advertised for its dark and porous dust bag is replaced here by a clear plastic dynamic qualities. Its video commercial represents it in fast flight, dustbin that exposes the finely sorted dust. This is also a sweeping across empty space as if magically self-operated. Having formidable performance machine, aggressive and sophisticated eliminated its own interior (becoming transparent and displaying like a contemporary weapon and, like a weapon, protected by the debris of life that it systematically sifts and sorts), the cleaning the secrecy of multiple patents and copyrights. Colourful and machine is now released also from the interior of the house, and super-efficient, the vacuum cleaner is highly designed to fit the becomes an object of design and display in its own right. Freed from the control of the human being who operates it, it suggests Hamilton's visual commentary, is more than just 'so different, both the liberation from domestic chores and the redefinition of a self-cleaning house, and, problematically, the disappearance of its inhabitants. In the still images that demonstrate the operation of the Dyson vacuum cleaner, the machine is operated by androgynous grey ghosts, pale silhouettes that replace and recombine Hamilton's 1950s femme fatale, her partner, and their maid, in a reinvented and neutralised (neutered?) human being, reduced to an attachment of the machine. Whether it operates by itself gliding in the darkness or it is gently accompanied by an androgynous ghost, this new machine operates in the vacuum, and what is really gone here is the domestic space.

FPII OGUE: AFTER DUST

Domestic dust and the practices and technologies for its removal mark different economies of the body and gender, as well as changing definitions of the relationship between interior and exterior space, the domestic, and its exposure. Dust and dusting, and their critical portrayal in the visual arts, represent also changing attitudes toward the discarded and the reclaimed. The technological dream of vacuum cleaning seems to come to a halt at the end of the 20th century: the dreams of a machinic More recently, the transparency of the dust container has been future have been surpassed by reality, cleaning is no longer a



In the photographic series Sugar and Spice, All Things Nice (This Is What Little Girls Are Made Of) (1999) English artist Mat Collishaw, echoes nursery rhyme verses to invent a contemporary fairy tale world of abandoned buildings and urban corners littered with garbage and the incongruous presence of magic little fairies (Figure 4). Miniscule young girls in makeshift fairy costumes and big see-through butterfly wings inhabit these neglected places of discarded urban technology, somehow indifferent to the desolation that surrounds them, but also incapable of improving their environment and apparently resigned to live in it. Two of them, sitting on a rusty discarded vacuum cleaner (a weapon of the war on dust, put well beyond use and nearly beyond recognition), become, ironically, messengers of hope. Having lost even a trace of interior domesticity, and

Opposite

Figure 3: Dyson Ball vacuum cleaner. Front view. Image courtesy of Dyson Ltd.

having relinquished any will to aggressively control their environment, they suggest a reinvented relationship with the (dis)order of urban space and with the discarded – ultimately becoming harbingers of a new, post-technological form of inhabitation.

Post scriptum: As I edit this text, the UK pre-Christmas 2011 advertising is massively occupied by Dyson Ltd's TV commercials for the Handheld Dyson DC34-Animal. Independent from power cable and hose, light, portable and rechargeable, this vacuum cleaner really looks like a gun (Figure 5). A child of the handheld DC31 first launched in 2009, powered by a digital motor that 'spins at over 100,000 rpm, five times faster than a Formula 1 racing car engine', this small but powerful machine can go and clean anywhere, inside or outside the house, in a car or a boat. Liberated from the home and its networked systems, that is nevertheless the space in which it paradoxically (and quite obviously) best performs in, working at its best when attacking nooks, crannies and carpeted stairs — all those nightmarish receptacles of dust that had felt so comfortably concealing in the bourgeois interiors of the 19th century.



NOTES

- I. Walter Benjamin, *The Arcades Project*, trans. H. Eiland and K. McLaughlin (Cambridge MA: The Belknap Press of Harvard University Press, 1999). I have discussed this in Teresa Stoppani, "Dust makings. On Walter Benjamin's *Passagen-Werk* and some contemporary dusty makings in architecture", *The Journal of Architecture* 12(5) (2007): 543-557.
- 2. Georges Bataille, 'Dust', in R. Lebel and I. Waldberg, eds, Encyclopaedia Acephalica: George Bataille & Acéphale, volume 3 of Atlas Arkhive. Documents of the avant-garde (London: Atlas Press, 1995, 51-52). Originally published as Georges Bataille, 'Poussière', Documents 1: 278.
- 3. Bataille, 'Dust', 51-52. I have discussed this in Teresa Stoppani, "Dust revolutions. Dust, *informe*, architecture (notes for a reading of Dust in Bataille)", *The Journal of Architecture* 12(4) (2007): 437-447.
- 4. Sophocles, 'Antigone', in *Antigone. Oedipus the King. Electra*, trans. H.D.F. Kitto (Oxford: Oxford University Press, 1994), 33.
- 5. I have discussed this in Teresa Stoppani, "Dusty Stories of Woman. Notes for a Re-definition of Dust", The Issues in Contemporary Culture and Aesthetics 1 (2005): 125-132.
- 6. Graham Green, Our Man in Havana (London: Penguin Books, 1991).
- 7. Green, Our Man in Havana, 74.
- 8. Elio Grazioli, La polvere nell'arte (Milan: Bruno Mondadori, 2004), 224. Author's translation.
- 9. Grazioli, La polvere nell'arte, 223-4. Author's translation.
- 10. Grazioli, La polvere nell'arte, 224. Author's translation.
- 11. Grazioli, La polvere nell'arte, 226. Author's translation.
- 12. Matthew Collings, 'Mythologies: Art and the Market' (interview with Jeffrey Deitch, art adviser to Citibank), Artscribe International, 52 (April/May 1986): 22-26.
- 13. Grazioli, La polvere nell'arte, 227. Author's translation.
- 14. Grazioli, La polvere nell'arte, 227. Author's translation.
- 15. James Dyson, Against the Odds. An Autobiography (London: Texere, 2003). See also the Dyson Ltd. Website. Accessed December 04, 2011. http://www.dyson.co.uk/ In particular: Vacuum cleaners: http://www.dyson.co.uk/vacuums/Handhelds: http://www.dyson.co.uk/vacuums/handhelds/default.asp

 $In side\ Dyson: http://www.dyson.co.uk/insidedyson/default.asp$

Press Centre: http://www.dyson.co.uk/press/

- 16. Mat Collishaw (with an essay by Neal Brown) (London: Other Criteria, 2007). See also the artist's website. Accessed December 04, 2011. http://www.matcollishaw.com/
- 17. 'Dyson DC31: the most advanced handheld technology', 26th June 2009 (Dyson's press release). Accessed December 04, 2011. URL: http://www.dyson.co.uk/press/pressrelease.asp?ReleaseID=68

Figure 5: Dyson handheld vacuum cleaner.

Image courtesy of Dyson Ltd.