

## Instruktor 5: De naturvidenskabelige og teknologiske idéers historie

### Videnskab og køn og den videnskabelige revolution

- ▶ 14:15-14:20: Intro og program
- ▶ 14:20-14:30: Besvar Merchant 2006-spørgsmål 1-3
- ▶ Spørgsmål/kommentarer til forelæsningsen?
- ▶ 14:30-15:05: Gruppearbejde om **oplæggene** (ligger på BS)
- ▶ 15:05-15:15: Pause
- ▶ 15:15-15:30: Gruppearbejde om **oplæggene** (ligger på BS)
- ▶ 15:30-16:00: Oplæg og plenum

#### Arbejdsspørgsmål.

#### Merchant: *The Scientific Revolution and the Death of Nature* (2006):

“It [*Death of Nature*] argued that seventeenth-century mechanistic science itself contributed to the most pressing ecological and social problems of our day and dared to suggest that women were as much victims as the beneficiaries of the progress of science” (517).

1. Hvordan beskriver Merchant forholdet mellem idéer og det materielle i hendes 1980-analyse? (516)
2. Prøv at læse det midterste + det nederste afsnit på side 517 grundigt og diskutér, hvordan man skal forstå det – hvorfor er det, at hun ikke udfordrer selve idéen om Den Vid. Rev.?
3. Med tanke også på 1980-teksten af Merchant, overvej da hvor vi finder forbindelser mellem det økologiske og kønsanalysen.  
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4. Hvad er det for en forbindelse, Merchant skriver om midt på s. 518 mellem hekseprocesserne og så hendes argument om Bacons natursyn?
5. Hvilken rolle spiller værket *Daemonologie* og kong James I i Merchants analyse og argument? (519) Forhold det også til konteksten, der opridses kort på s. 523m.

6. Hvordan argumenterer Merchant for, at retorikken, metodologien og praksissen omkring hekseforfølgelser spiller en rolle for Bacons argumenter? (524)
7. På hvilke punkter reviderer Merchant sin analyse og kritik fra 1990? Hvad refererer FoB til, og hvordan går hun i rette med deres kritikker?
8. Diskutér slutteligt, hvad I synes. Synes I, at hendes analyse og kritik af Francis Bacon holder – hvorfor/hvorfor ikke? Er det vigtigt at påpege misogyni hos store tænkere/videnskabsmænd op gennem historien – hvorfor/hvorfor ikke?

**Forbered i grupper et oplæg af 5-10 minutters varighed om Haraway-teksten.**

**Hovedspørgsmålet: Hvordan mener Haraway, at køn blev re-konfigureret under det syttende århundredes eksperimentelle program?**

**Gruppe 1 skal forsøge i oplægget at komme omkring og forklare flg.:**

- ”The culture of no culture” og “unmarked witness”
- Køn som en “præ-eksisterende” kategori overfor køn som relation
- (Wo)”men -in-the-making” (229m)
- Epistemologisk usynlighed
- Nye mandlige dyder (230-232)
- Subjekt / object og “self-invisibility”
- Re-konfigurering
- Objekters talsmænd
- “Modesty of mind”
- *Gælder begge: (Sidst i oplægget må I gerne komme ind på overvejelser over potentielle forbindelseslinjer og forskelle mellem Merchants og Haraways kønsanalyser).*

**Gruppe 2+3 skal forsøge i oplægget at komme omkring og forklare flg.:**

- Luftpumpen og dens rolle i kønsanalysen
- Laboratoriets rolle i skabelsen af ”det ydmyge vidne”

- Hvordan fraværet af kvinder ifølge Haraway "... gendered the experimental way of life in a particular way" (228)
- Relationelle kategorier
- Epistemologisk agens og lokation
- Den videnskabelige revolutions "narrativ om objektivitet" (233m)
- Det materiel-semiotiske
- "Modesty of body"
- *Gælder begge: (Sidst i oplægget må I gerne komme ind på overvejelser over potentielle forbindelseslinjer og forskelle mellem Merchants og Haraways kønsanalyser).*

**Begge/alle tre grupper kan med fordel lade sig inspirere af nedenstående udpluk fra teksten:**

"Acting as object's transparent spokesmen, the scientists had the most powerful allies. As men whose only visible trait was their limpid modesty, they inhabited the culture of no culture. Everybody else was left in the domain of culture and society." (225)

"Thus, the rhetoric of the modest witness, the 'naked way of writing,' unadorned, factual, compelling, was crafted." (226)

"... they [Shapin and Schaffer] were silent on the structuring and meaning of the specific civil engineering of the modest witness. They took his masculine gender for granted without much comment. [...] the gap in their analysis seems to depend on the unexamined assumption that gender is a preformed, functionalist category ..." (226)

"Shapin saw no reason to posit that gender was at stake, or remade, by any of the processes that came together as the experimental way of life. [...] women were invisible in both physical and epistemological senses." (227)

"Shapin's questions are different from mine. He notes exclusions, but his focus is on other matters. In contrast, my focus in this chapter is to ask if gender, with all its tangled knots with other systems of stratified relationships, was at stake in key reconfigurations of knowledge and practice that constituted modern science." (227)

“There are several ways to contest Shapin’s judgement that gender was merely conserved, and not redone, or at least hardened in consequential ways, in the seventeenth-century meeting of science and civility.” (227)

“... what I think Shapin does not interrogate in his formulations was whether and how precisely the world of scientific gentlemen was *instrumental* in both sustaining old and in crafting new ‘gendered’ ways of life. Insofar as the experimental way of life built the exclusion of actual women, as well as of cultural practices and symbols deemed feminine, into what could count as the truth in science, the air-pump was a technology of gender at the heart of scientific knowledge.” (228)

“Gender is always a relationship, not a preformed category of beings or a possession that one can have.” (228)

[Citat af David Noble]: “... throughout most of its evolution, the culture of science has not simply excluded women, it has been defined in defiance of women and their absence ...” (229)

“Race and gender are about entwined, barely analytically separable, highly protean, *relational* categories. Racial, class, sexual, and gender formations (not essences) were, from the start, dangerous and rickety machines for guarding the chief fictions and powers of European civil manhood. To be unmanly is to be uncivil, to be dark is to be unruly: Those metaphors have mattered enormously in the constitution of what may count as knowledge.” (230)

“Female modesty was of the body; the new masculine virtue had to be of the mind. This modesty was to be the key to the gentleman-scientist’s trustworthiness; he reported on the world, not on himself.” (230)

“Enhancing their agency through their masculine virtue exercised in carefully regulated ‘public’ spaces, modest men were to be self-invisible, transparent, so that their reports would not be polluted by the body. Only in that way could they give credibility to their descriptions of other bodies and minimize critical attention to their own.” (232)

“Depleted of epistemological agency, modest women were to be invisible to others in the experimental way of life.” (232)

“To be the object of vision, rather than the ‘modest’, self-invisible source of vision, is to be evacuated of agency.” (232-233)

“The point is to make a difference in the world, to cast our lot for some ways of life and not others. To do that, one must be in the action, be finite and dirty, not transcendent and clean. Knowledge-making technologies, including crafting subject positions and ways of inhabiting such positions, must be made relentlessly visible and open to critical intervention.” (236)

“From the point of view of the culture of no culture, where the wall between the political and the technical is maintained at all costs, and interpretation is assigned to one side and facts to the other, such worlds can never be investigated.” (237)

“So I close this evocation of the figure of the modest witness in the narrative of science with the hope that the technologies for establishing what may count as the case about the world may be rebuilt to bring the technical and the political back into realignment so that questions about possible livable worlds lie visibly at the heart of our best science.” (240)

“The air-pump was an actor in the drama of the Scientific Revolution. [...] Those humans to whom could be attributed a power of agency approaching that of the air-pump and its progeny over the next centuries had to disguise themselves as its ventriloquists. Their subjectivity had to become their objectivity, guaranteed by their close kinship with their machines. Inhabiting the culture of no culture, these modest witnesses were transparent spokesmen, pure mediums transmitting the objective word made flesh as facts.” (241-242)

“There is no way out of stories; but no matter what the One-Eyed Father says, there are many possible structures, not to mention contents, of narration. Changing the stories, in both material and semiotic senses, is a modest intervention worth making.” (246)

### **Diskussion:**

1. Diskutér hvilke opfattelser og forestillinger om den videnskabelige revolution Merchants økofeministiske kritik udfordrer?
2. Diskutér, om I finder forbindelseslinjer til Haraways tekst om situeret viden.

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*Arbejdsspørgsmål til Merchant 1980 (IKKE til i dag):*

**Merchant (1980): The Death of Nature, chap. 7**

1. Hvilke forbindelser argumenterer Merchant for, at der er mellem Bacons natursyn og samtidens hekseforfølgelser? Hvordan konstruerede Bacon en ny etik “sanctioning the exploitation of nature”? (164)
2. Hvad står der om Bacons *New Atlantis* udgivet i 1624 – og hvordan relaterer Merchant værket til udviklinger i Bacons samtid? (s. 172n-174m + 180n-)
3. Hvordan beskrives det, at Salomon’s Hus i Bacons utopi længe har været anskuet som ”prototype of a modern research institute [and] forerunner of the mechanistic mode of scientific investigation” (182ø-183)?
4. Merchant argumenterer for, at Bacons mekanistiske utopi var fuldt ud kompatibelt med samtidens mekanistiske filosofi – herunder at denne tænkning er ”antitetisk” til holistisk tænkning. Beskriv, hvordan hun argumenterer herfor og diskutér dernæst, hvad I synes. (S.185-186).