



Language and Hermeneutics

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Abstract

This essay for the inaugural issue of *Technology and Language* builds on the author's longstanding commitments and forthcoming book on *Material Hermeneutics*. These concern the technological revolutions in imaging technologies which created the ways for material things to "speak", as in visualism and its expansion. Science though its instruments changed perception – but in different ways at different times. Early Modern Science began in the 17th century in an instrumentally optical or "visualist" mode with telescopes and microscopes. Late Modern 19th century Science, more sure of itself and more abstract, drew on the new imaging technology of spectroscopy. In the 20th century, postmodern science expanded from "visualism" as perception became multi-sensory. Tending to the ways in which material things learn to "speak" will reshape all previous historiography and interpretation.

Keywords: Material hermeneutics; Scientific instruments; Perception; Visualism; Technological revolutions

Аннотация

Данное эссе для первого выпуска журнала «Технологии в инфосфере» («Technology and Language») основана на многолетних исследованиях автора и готовящейся к изданию монографии по материальной герменевтике. Эти исследования касаются технологических революций в технологиях визуализации, которые научили «говорить» материальные предметы, а также подготовили их к визуализму и его вариациям. Наука с помощью своих инструментов изменяет восприятие – но по разному в разные времена. Ранний этап современной науки начался в 17 веке в инструментально-оптической форме при помощи телескопов и микроскопов. Наука модерна конца 19 века, более уверенная в себе и более абстрактная, опиралась на новую технологию визуализации – спектроскопию. В 20 веке постмодернистская наука расширилась до концепции «визуализма», восприятие стало мультисенсорным. Обращение к тому, как материальные вещи учатся «говорить», изменит всю предыдущую историографию и ее интерпретацию.



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1942 was the 400th anniversary of Coronado's trip from Mexico to Kansas. In what may appear as a disjointed autobiographical account, 1942 was also the year when I was a young and naive boy in a one-room country school. In my new book *Material Hermeneutics: Reversing the Linguistic Turn* (Routledge 2021) I re-count my disturbance at what I was being taught in that school about our primary colonists, the pilgrims who landed at Plymouth Rock, Massachusetts in 1620, which was 89 years after the Spaniard Coronado reached Kansas (Inde, 2021). Something was wrong – but who was I, young and naive to question this "history"?

In the 1960s, searching for a dissertation topic, I discovered Paul Ricoeur, master of a linguistic hermeneutics from whom I learned so much. Later, tending to science's technologies, particularly its imaging technologies, I wrote *Technics and Praxis* (1979), marking my turn to science and technology. I learned that science, though its instruments changed perception – but in different ways at different times (Inde, 1979). The standard view is that Early Modern Science, largely under Galileo, began in the 17th century. It was instrumentally optical or "visualist" with telescopes and microscopes that were often made by Galileo himself. He forever changed perception – a new micro-world appeared through his microscopes, seven labia of bees, plant cells and more, and the macro-world of the heaven. It was limited to very human "white light" but now it included sunspots, satellites of Jupiter, the myriad stars of the Milky Way, and more that was never before perceived.

Then came Late Modern 19th century Science, more sure of itself and more abstract, with the new imaging technology of spectroscopy and its color-codes for defining sun, stars and the mathematized electro-magnetic spectrum.

In 20th century Postmodern Science imaging technologies began to discover animals. Jane Goodall did not until the 1960s publish her discoveries of chimps and termite probes – nor did we know then of animal perception in terms of thermal, ultra- and infra-sounds, infra- and ultraviolet light. For the first time science expanded from "visualism," and perception becomes multi-sensory.

These multi-sensory technologies of perception drew on all that was invented in imaging with the radio, phonography, even accurate dating technologies such as Carbon 14 (first used in 1940). It is for this revolution in imaging that today anyone can hear dust particles hit Casini, the space probe, or see the old trails of the Silk Road, or Superhenge, 5 times larger than Stonehenge from magnetic imaging underground. So, I would argue that there have been technological revolutions in imaging technologies which created the ways for material things to "speak" and more, thus leading to a "material hermeneutic" which will change all previous histories and interpretations.



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