ARCHAEOLOGICAL THEORY

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Is there “Archaeological Theory” as a Distinct Field?


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Three Phases of Theory in Archaeology:

1. **Cultural-Historian (till 1950s).**
2. **'New' Archaeology (1960s-1970s), later called 'Processual'.**
3. **'Post-Processual' (since 1980s).**

"Cultural-Historian" (19th c – early 20th c) - main features:

- **Historical framework.**
- **Typology by (formal) traits, taken from species (type-family-culture)**
- **Cultures =ethnices, representing societies ("pots and people"). Changes explained by diffusion, influence and migrations.**
- **In general, positivist philosophy.**

TYPOLOGY

Gorodzov 1933: "the purpose of the typological method is the accurate determination of each type in space and time, so that in the final analysis it will be possible to give to each type of archaeological objects the meaning of a hieroglyph, with the help of which one will be able to read the history of the material and social culture of all extinct generations of humanity… This should be followed by the correct reading off collective archaeological remains, the objective reading, expressive and ful of ideological contents, and enable us to decipher all secrets of material life … Not a single social science can compete in this respect with archaeology"

His typology: 1 type - 2 genera - 3 categories - 4 groups.

Example: 1 flat, square socketed axe – 2 socketed axes – 3 bronze axe – 4 (all) axes.

24 Bronze Age artifacts arranged according to Montelius' system, 1881

Christopher Hawkes

Hawkes 1954 – Archaeology as history

Archaeology's basis "lies in antiquities or archaeological phenomena that are known or knowable historically, from consideration of which it proceeds with the aid… of the relevant historical texts to conclusions about the past human activity…

The aim is the "correct attribution [of finds] to a known historical context, using either readable inscriptions… or the identification of their localities with localities described in reliable historical records". From such "historically guaranteed examples", one can determine types (Greek temples, Celtic coins)… One can built from the types series, "the successive members of which are seen as related to each other in processes of development or degeneration" (157f).

cont. Hawkes (p.160): "as soon as we have telehistoric or parahistoric cognition… we are no longer interpreting our archaeological evidence simply and solely by ideas of anthropological "process", or of ecological determinism. In rural economy, burial rites, technology, sociology, or what not, there is always, somewhere or other, a point of reference within the historic order. We can interpret as we do because we are dealing with the outer parts of a diffusion-sphere, of more than one diffusion-sphere, which we know to have history… The fertility symbols of.. Neolithic Europe stand to be interpreted with the help of what is historically known about the fertility cults of the ancient East".

cont. Hawkes: "from Anthropology you have in the last resort only "process"- notions of a quite general sort about the social life and activities of primitive man, and the generalization about his conservatism… otherwise you have got to use inductive reasoning, to take you from comparison and analysis of observed phenomena to the human activity that once produce them … there is nothing in North American ecology… to compel the constitution of the US" (162f).

[about anthropological studies]: "a very proper refusal to fill the place of a history not immediately known by an imaginary one fabricated by the anthropologist himself"…


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“New Archaeology” (1960s-1970s)

- **Taylor (1948).**
- **Willey and Philips (1958): “Archaeology is Anthropology or nothing”.**
- **Clarke 1973:12 (Antiquity): “The NA is an interpenetrating set of new methods, new observations, new paradigms, new philosophies and new ideologies within a new environment. OA, “in the extreme case… is a doomed race of disciplinary dinosaurs”.**

Colin Renfrew

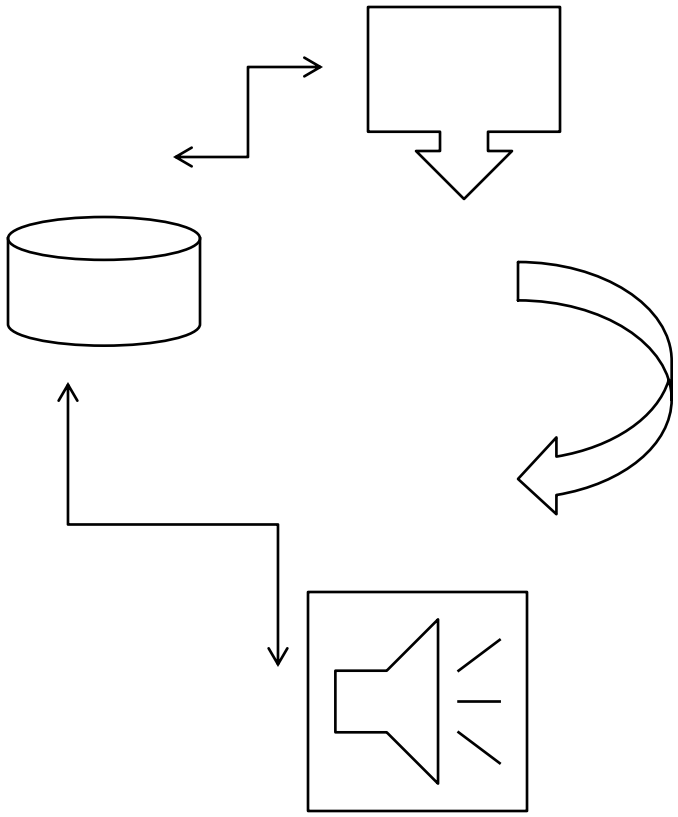
Lewis Binford

New Archaeology – The Main Features

- **Archaeology as Anthropology.**
- **System theory: Cultures as Systems.**
- **Models (and research plans).**
- **Excplicit theory, theory building, 'scientific'.**
- **Use of 'side' sciences (C14, statistics, imaging, archaeo-zoology/-botany, etc.) [rise of Computers].**
- **From Hempelian Covering Laws to Middle Range Theory.**
- **The archaeological record/formation processes.**

"The abandonment in effect [by archaeologists and social anthropologists] of the notion of historical explanation as a valid category of intellectual activity" (Spaulding, AC 1968. Explanation in Archaeology:33).

Ludwig von Bertalanffy



Binford 1962, Archaeology as Anthropology. *American Antiquity* 28

Anthropology's task is to "explain and explicate" man's existence. A' explicated, but not explained. Explanation comes only in terms of (general) systems theory - it is "the demonstration of a constant articulation of variables within a system". "Normative A'" failed to explain, because it lacked a "systemic frame of reference"; since it saw culture in historical terms of particular events.

Binford defines culture as : "the extrasomatic means of adaptation for the human organism" (after White 1959). It is a system, which includes 3 sub-systems. We can divide artifacts to these 3 sub-systems:

1. Techonomic artifacts (mainly tools) – "having their primary functional context in coping directly with the physical environment"; largely to be explained by ecology. Here we are in a good position, able to offer direct explanations.

2. Sociotechnic artifacts- with a primary functional context in the social subsystem, they "represent" it and are to be explained by the its nature and structure. Examples: king's crowns, warriors' sticks. Here archaeologists cannot contribute yet, since anthropologists must first develop a relevant theory!

3. Ideotechnic artifacts- primary functional context in "the ideological component", related to "ideological rationalization". They provide a "social milieu". Examples : figures of deities, clan symbols. To be explained not by historical, particular "beliefs", but as "local adaptation" to the structure of society. Here too, contribution is a future vision.

Yet, how do we ascribe artifacts to subsystems? How do we "explain" a king's crown, if not by (the inexplicit in this paper) notion of similarity to other finds and 'jumping' into heads of ancestors, assuming they were a bit like us? –The same notion that Binford attacks vehemently!

Furthermore, his division of artifacts has "classes" and "a category" (style)- in fact, just another typology. Like former typologies - like any typology - it involves arbitrary criteria, that are not "inherent" in the artifacts themselves. Binford's statements on Archaeology's ability to explain each subsystem describe a situation that is very similar to the old picture presented by Hawkes' (1954) "ladder".

Models

Start by research question – employ a model (usually taken from anthropology) on the data (e.g., excavated data, survey data) – get scientific results.

Example: the Neoevolutionary model of Sahlins and Service: human societies develop from tribes – to chiefdoms- to states.

Was employed by biblical scholars/ archaeologists on 'ancient Israel', each found what she/he wanted, for the biblical data could be interpreted differently and the archaeological data was fitted to it.

Clarke, D.L. Models in Archaeology, 1972

"schematic model of material means provisioning process for elite contexts in 18th Cyprus"

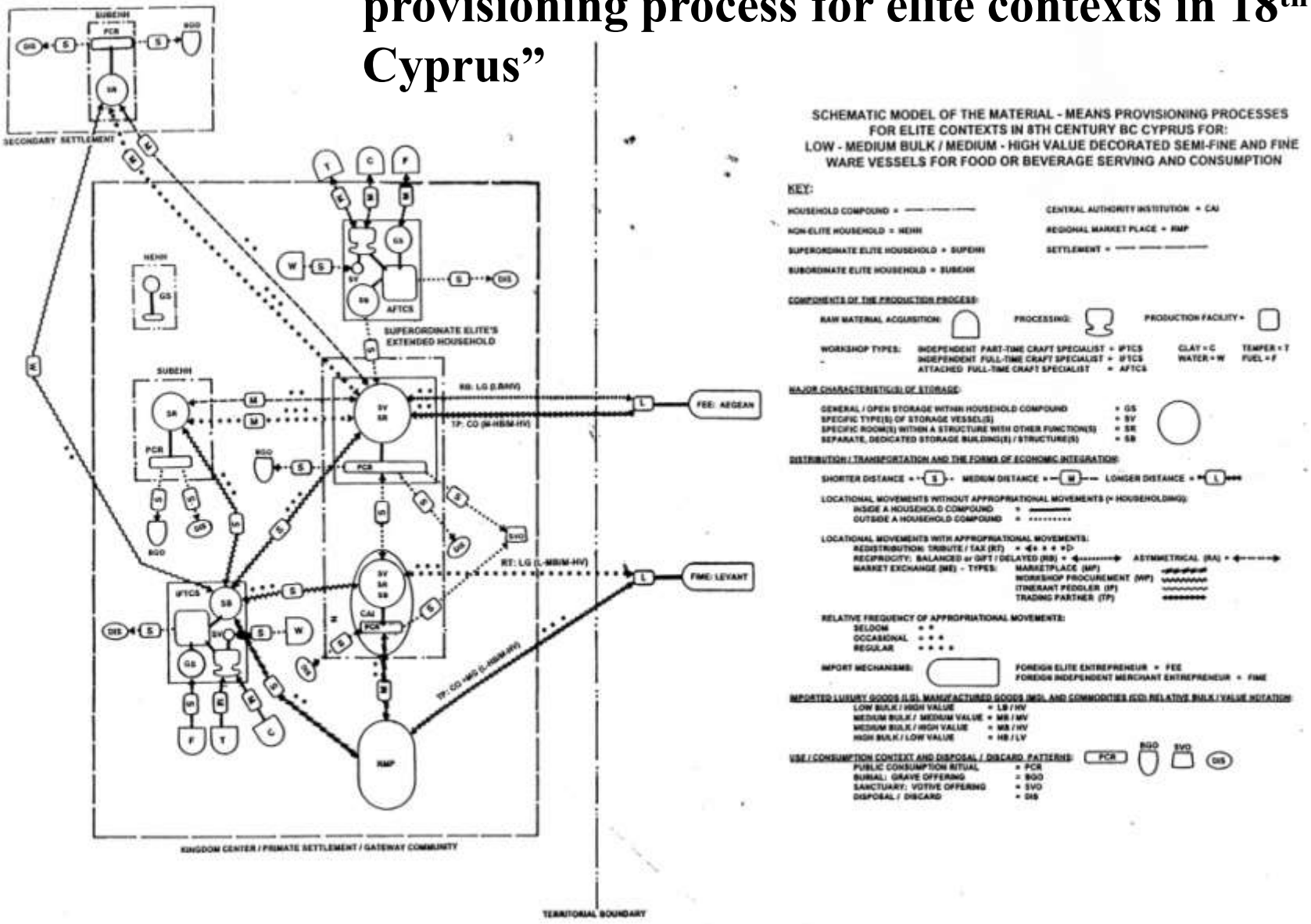
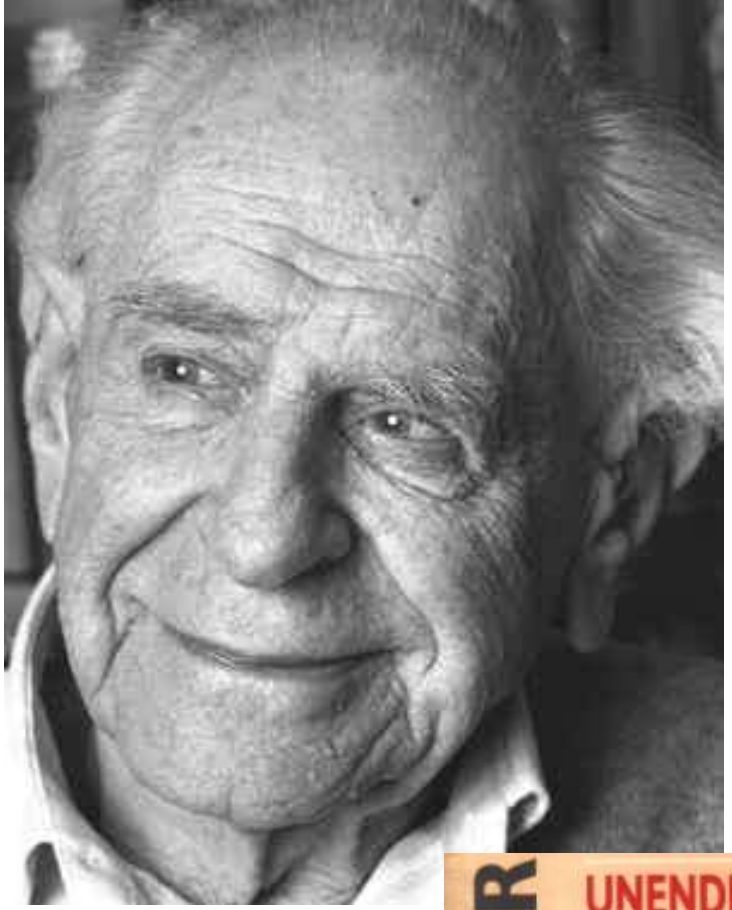


Fig. 7.6 Schematic model of the 'material-means provisioning process' for elite contexts in 8th century BC Cyprus for low-medium bulk/medium-high value decorated sen and fine ware vessels for food or beverage serving and consumption (prepared by D. W. Rupp).

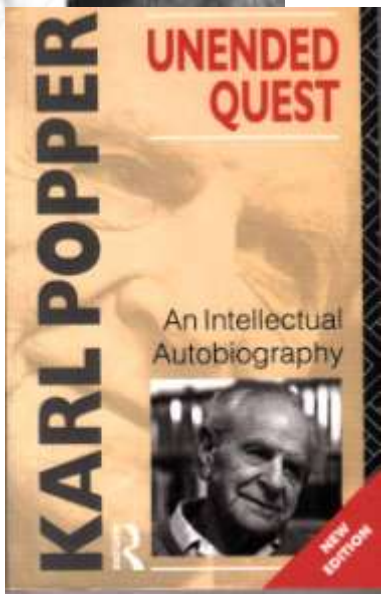
Covering Laws and the nature of archaeological explanation



Karl Popper 1902-1994

Main concepts: scientific theories cannot be verified- only falsified. Criticism lies at the heart of rationality.

Main work: "*The Logic of Scientific Discovery*" (1934 German, 1959 English);



Main Books:

1. **Logik der Forschung (1934) = The Logic of Scientific Discovery (1959).**
2. **The Open Society and Its Enemies 1945.**
3. **The Poverty of Historicism (1944-5, book 1957)**
4. **Conjectures and Refutations (Collection of Essays). 1963.**
5. **Objective Knowledge (1972).**
6. **On Popper, ed. PA Schilpp, The Library of Living Philosophers 14.**

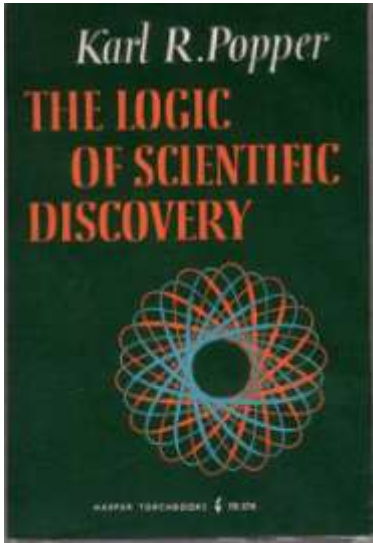
"The structure of Scientific Logic"

1. <u>How to distinguish science from pseudo-science</u>. (e.g. Einstein vs. Freud or Marx). The later seem to explain everything, Einstein's theory is related to definite predictions and can be refuted (e.g. if light traveling near the sun would not be curved). Popper decided around 1921 that this is the main difference: scientific theories are always open to empiric refutation. [hence Popper too MUST be criticized!]

2. <u>How does science acquire new knowledge</u>? Since theories are never verified, only refuted, scientists offer new theories as guesses, that are subjected to on-going, sustained attempts of refutation. Science advances by 'trial and error'.

In order to be scientific, a theory must be empirically falsifiable. Evidence or new evidence never verifies, it can only falsify a theory.

Science advances when one theory is refuted; another is suggested. The new one must be more successful- it must predict all the phenomena that the former predicted, plus those that the former failed to predict; plus offer new predictions. Then the new theory is put to "harsh text"- on-going efforts to refute it. So all theoretical knowledge in science is irredeemably conjectual.



Popper was criticized, that even refutations are never "decisive". His answer: 1. There is decisive asymmetry between verification and falsification; a theory has many consequences and we can never verify them all in our time/place. But we only need to discover one false consequence to refute a theory. 2. A theory falsified can always be 'rescued' by "*conventionalist strategems*'- modifications *ad hoc*. This is to be allowed only if they increase the amount of falsifiability, ie., if they predict more than before.

Supreme rule in science should be: that scientific procedures would not protect any theory against falsification (L.Sc.D.:54). A theory can be *corroborated* = how well it stood on-going attempts of refutation.

Popper is not much interested where scientists get theories from - these may be guesses, wild imagining, etc. The important thing is serious, on-going attempts of falsification.

The 'Vienna circle' = the school of "Logical Positivism"- believed that we can divide and define meaningful from meaningless: Meaningful= what can be verified; hopefully meaningful factual propositions would be scientific.

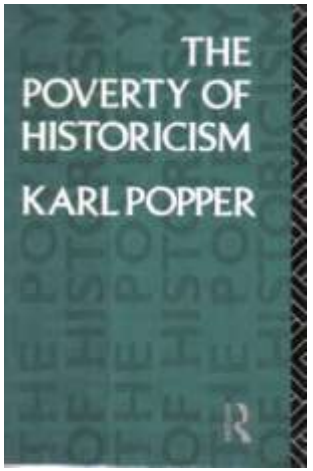
Popper disagrees in dividing the line between science and pseudo-science; and in the claim that nothing can really be verified.

"The Poverty of Historicism" (1944-5, book=1957)

Popper saw two methods in historicism:

1. "Anti-naturalist" - believe that methods of social & natural scientists are very different

2. "Pro-naturalists" – believe these sciences are the same or similar.



Anti-naturalists claim that social phenomena exhibit novelty, complexity and a holistic aspect missing from physical phenomena. Social sciences that predict roughly the evolution of a society must employ methods that differ from natural sciences.

Pro-naturalist historicists refer mainly to astronomy- as astronomers can predict the state of a solar system far into the future, so social scientists can predict state of societies.

Popper against 'pro-naturalists'. Their "laws of succession" specify how one characteristic phase of social development give way to a subsequent phase.

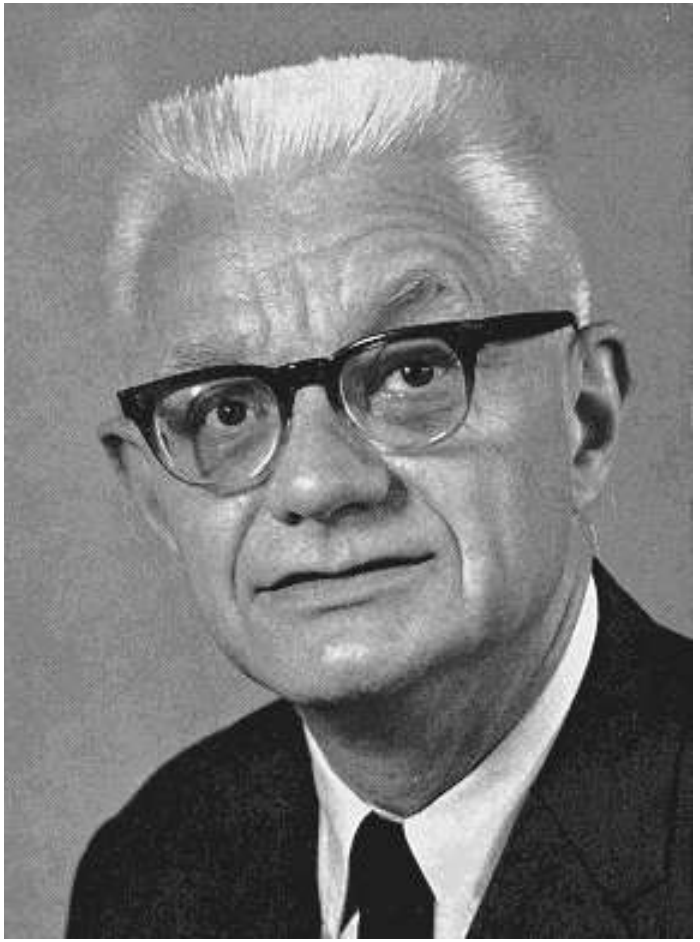
In his view, these are not laws in the sense of laws as understood in natural sciences. They are trends. A law provides a causal explanation of an event when the law plus initial conditions imply that the event occurs. E.g., when some causal events occur (wind causing apple to fall). Law/s plus specification of the sequence of initial conditions are required to predict the sequence of events.

Carl Gustav Hempel

1905-1997

Main concept: deductive-nomological model of scientific explanation.

Studied at Gottingen, Heidelberg and Berlin. PhD 1934 Berlin. immigrated to Chicago 1937. NY City Colledge (1939-48), Yale (48-55) and Princeton. Retired 1964. Teaching at Pittsburgh 1977-85.



Main Works:

1942. The Function of General Laws in History.

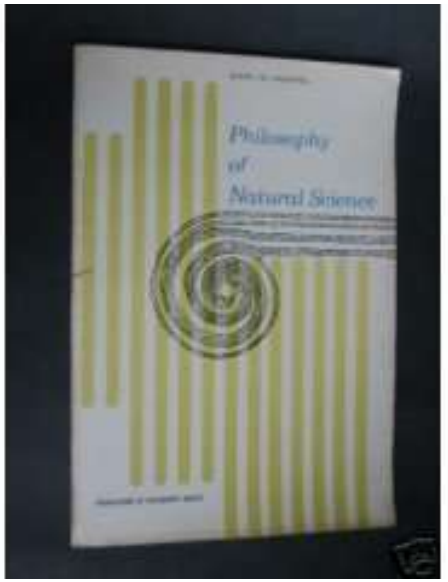
1943. Studies in the Logic of Confirmation.

1959. The Logic of Functional Analysis.

1965. Aspects of Scientific Explanation.

1966. Philosophy of Natural Sciences

1967. Scientific Explanations.



Deduction vs. Induction (Oxford Dict.):

Deduce= to arrive at facts/theory by reasoning; deduction= the process of reasoning from general principles to a particular case. For Example:

All the citizens of Tallinn are rich. 2. X is a citizen of Tallinn. .1 3. Therefore, X is rich.

Induce= to persuade, influence, to cause. Induction = a method of logical reasoning that discovers general laws from particular facts. Example:

X is citizen of Tallinn and is rich. 2. Y, Z…. N are citizens of .1 Tallinn and are rich. 3. Therefore, all the citizens of Tallinn are rich.

Deductive-Nomologic [Hempel]:

If L1, L2, L3, Ln…. [general laws]

And if C1, C2, Cn… Cn [particular facts= antecedent conditions or premises].

[Ls and Cs are Explanans]

Then: E = Explanandum [description of empirical phenomena to be explained].

E- is a deduction that describes the fact/s we want to explain; the premises are scientific laws and suitable initial conditions. For an Explanation to be acceptable the explanans must be true.

Facts are explained when subsumed under laws- explanation demands scientific law/s.

Hempel: a fundamental theory is defined as a true statement, whose quantifiers are not removable, which does not contain individual constants.

Derived theory- generalized statement which is a logical consequence of a fundamental theory. References to specific space-time regions or individual things are not allowed- a scientific theory deals with general properties expressed by universal statements. [Newton's laws good for all bodies; Kepler laws are valid under limited conditions and refer to specific objects].

Theories must be true; hence scientific laws are not tools for making predictions, but are genuine statements that describe the world (=realistic view).

In *Aspects of Scientific Explanation*, 1965, Hempel accepts inductive explanation, in which the explanans includes statistical laws, giving only a high degree of probability, not completely 'true'.

An example: "The relative frequency of P in respect to Y is r. An object X belongs to P. Therefore, X belongs to P". This conclusion is true only in an r degree of probability. The explanation requires a covering law- but in this case a statistical law.

Example of a covering laws found by new Archaeologists

"If there was a residence rule which led to related female living in the same locale through several generations, and assuming that potters are female, then ceramic manufacture and decoration would be learned and passed down within the context of this residence unit."

"If a' material is arranged vertically when found, and is not disturbed, then that on the bottom is older than that above."

Morgan 1973 *(in World Arch')*: such are no 'laws' but "statements of particular facts or at best low level accidental generalizations" (or natural science laws sub-used in archaeology!).

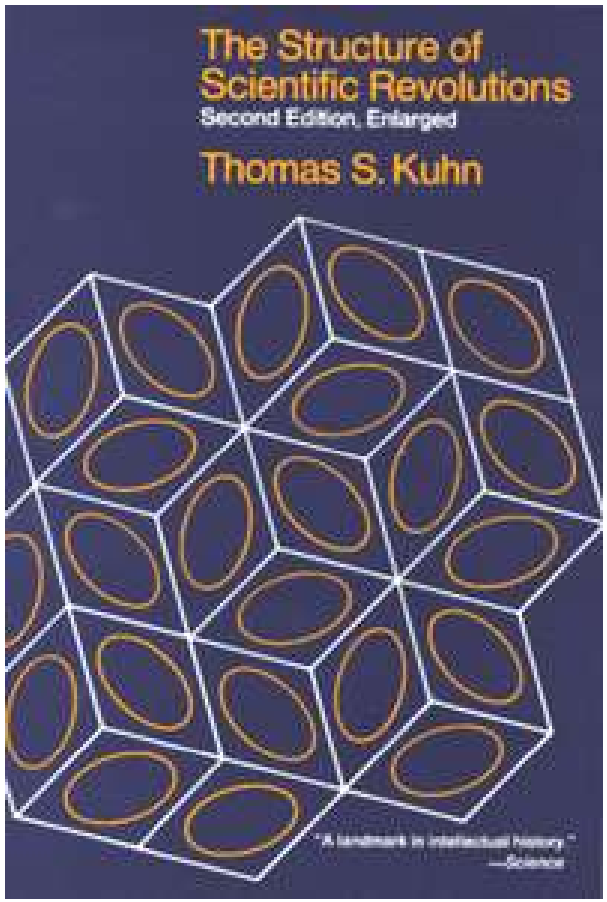
Science and scientific do not derive from adherence to one (problematic –Hempel's) model of explanation; Scientists discover. Their aim is not to explain but to discover information about the world. Thus archaeology even before NA has not been unscientific.

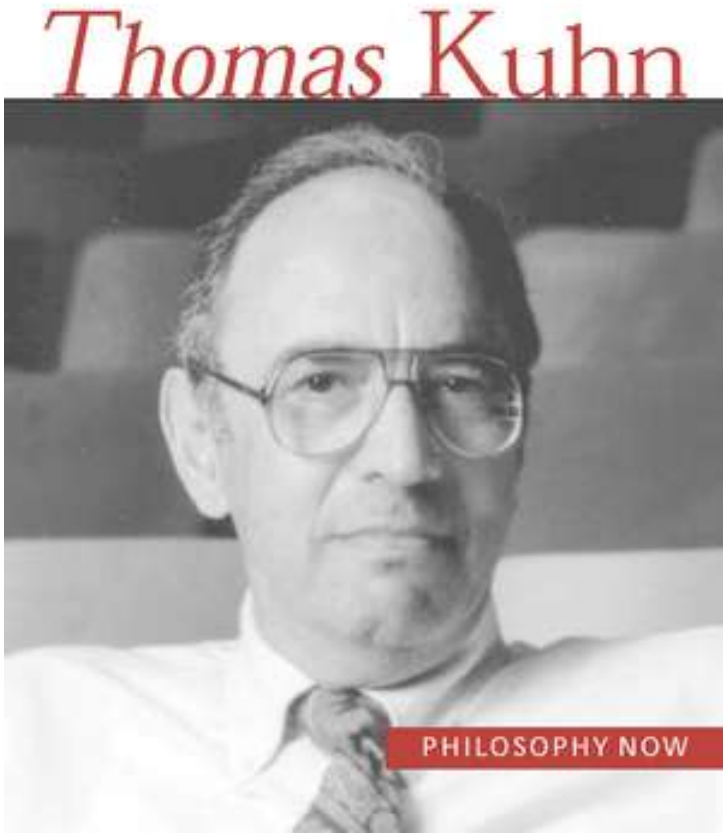
Morgan 1973 and 1974:

“There is no position so absurd that some philosopher has not propounded it at some time. Thus it makes little difference what doctrine you wish to support – you can always find some philosopher who, in his infinite wisdom, supports that doctrine”.


cactus
electromagic
Miele
vodafone

Thomas Kuhn 1922-1996





The most widely cited book in humanities sciences (from a study for 1976-1983)

Main concepts: paradigm shift; normal science.

Main work: The structure of Scientific Revolutions, 1962.

Phd. Harvard 1949; at Harvard 1949-56; later at Berkeley. Professor since 1961. In Princeton 1964; in MIT 1979; retired 1991.

Kuhn: The Structure of Scientific Revolutions

Science does not advance in a linear line, by accumulating facts and theories; but through periodic bursts of "paradigm shifts"= scientific revolutions. These do not built upon, but replace earlier phases.

The Model of Kuhn

1."Pre-paradigmatic stage" = prescience.

2."Normal science"= paradigmatic stage.

3."Revolutionary Science" = crisis generated by anomalies, leading to replacement of a Paradigm (returning to stage 2, but with a new paradigm).

How was the Idea formed:

Philosophers of science who tried to answer allegedly simple questions -like when was oxygen found, or who first thought about conservation of energy- discovered that there are no simple answers They started to think that maybe the questions themselves are in some way 'wrong'- and that maybe science does not advance in a linear fashion by accumulation. They also found that both 'science' and 'mythos' have the same structure of observations, experiments, etc. Some claimed there is no real difference between 'superstitions' and 'discarded scientific theories'.

Kuhn when writing, describes his own discovery; his book about 'paradigm shifts' is *in itself a paradigm shift* (in philosophy of science). However, following his own model means his paradigm will also one day be replaced by another.

1. What is a Paradigm?

Paradigm is what formulates the fundamental facts and rules- the underlying body of concepts, with which scientists (even not explicitly) work. It suggests research problems, the means to solve them and criteria by which the adequacy of the solutions are judged. It gives scientists the confidence to take for granted basic concepts, freeing them to search in depth and solve "sub-problems". This is, says Kuhn, why normal science seem to progress fast- because it deals with problems that can be solved under the existing paradigm. It is still progress, since even solving a puzzle' piece requires skill and is challenging.

Scientific communities are structured; the structure is created and maintained by "paradigms". Young scientists are initiated into a paradigm by tough, strict teaching from textbooks.

"Universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners" (Khun 1970, in answer to critics).

1. Pre-paradigmatic Stage

At the start of a field of science, there is no central paradigm yet (no common body of belief). There may be a few competing schools of thought.

Having no accepted paradigm means that all the facts "that could possibly pertain to the development of a given science are likely to seem equally relevant" (15). So each scientist "built [the] field anew from its foundations".

Kuhn brought examples from natural sciences mainly and did not discuss if the humanities have reached the stage of "normal science" (having developed a ruling paradigm).

2. “Normal science” = Paradigmatic stage

One central paradigm exists, which all scientists in a certain field follow. They attempt to enlarge/develop, not to contest it.

Their work is like “puzzle solving”- putting in place more pieces in a puzzle whose general outline seems clear [“mopping up”- not a flattering picture]. Pieces that do not fit are usually ignored. The paradigm rules what questions of research are worthy; experiments are planned and conducted accordingly. Hence, results fit in nicely; if not, they are explained (away) as ‘mistakes’.

Most scientists are doing “normal science” all their lives.

“Normal science consists of extending the knowledge of those facts that the paradigm displays as particularly revealing, by increasing the extent of the match between those facts and the paradigm’s predictions, and by further articulation of the paradigm itself” (Kuhn: p. 24).

2. “Normal Science”- How is a paradigm formed?

This paradigm had to be sufficiently ‘new’ – an achievement- in order to draw the scientists to it; but on the other hand, it had to be sufficiently open- to leave edges or certain areas unexplored, so scientists will find they have what to discover under its wings:

“Sufficiently unprecedented to attract an enduring group of adherents away from competing modes of scientific activity” and “sufficiently open-minded to leave all sorts of problems for the redefined group of practitioners to resolve” (p.10).

Examples: Ptolemay *Almagest*; Newton *Principia* and *Opticks*;Franklin *Electricity*, Lyell *Geology*.

The emerging paradigm is at first just “a promise”, it needs to be articulated and developed/specified. It need not explain “all the facts”.

3. “Revolutionary Science”= Paradigm Shifts

This phase starts when “anomalies” are felt, first by a one/few scientists, then they are discredited. But when over an extended period an anomalie does not find answer, or the number of anomalies increases, or if the solution of an anomalie is demanded for practical necessity, it/they no longer can be ‘brushed’ as ‘mistakes’ or as a yet unsollved “puzzle piece”. Scientists understand that something is wrong with the paradigm, and a phase of crisis begins. The reason is that nature is not so “predictable” as any paradigm supposes- so anomalies rise even if scientists do not try to find them.

During crisis there is a growing sense that the paradigm is not adequate any longer; a proliferation of various theories compete; a “willingness to try anything and expressions of explicit discontent, and the recourse to philosophy and to debate over fundamentals” (Khun:92).

Crisis ends when a new paradigm is not only suggested, but manages to convince the community. This it does if 1. it can claim to solve the anomalies, which brought to the downfall of the former paradigm (esprcially if it does so with more precision); 2. It permits the prediction of new phenomena that were not existing in the old one; 3. If it has an aesthetic appeal (pp153-5).

Then the new paradigm <u>replaces</u> the former paradigm.

Those who do not shift, but continue to stick to the old paradigm, are silenced and forgotten as 'irrelevant'. The knowledge gained within earlier paradigms is now considered un-scientific, useless.

Incommensurability

Critics of Kuhn argued that this leads to relativism, that is, a world view by which no theory can be judged as better or truer than another. If each paradigm is "a world unto itself", one cannot compare directly rival paradigms, hence one cannot chose rationally between rival paradigms/theories.

Kuhn denied that he is relativist (in the 3rd edition)

Is "New Arcaheology" a Revolution in Archaeology?

By now, it should be clear that it is a complex question related to what (if there) is a revolution in science.

1. **For those who follow Popper: there are no revolutions in science. Science advances by addition of new theories that fully incorporate and built upon older theories.**

2. **For those who follow Kuhn: science advances in two different modes; 'normal' science advances within a given paradigm; revolution occurs when new paradigms replace older ones. According to Kuhn, this is total replacement (hence, a revolution).**

D. Meltzer 1979. Paradigms and the Nature of Change in American Archaeology, *Amer. Ant.* 44:644-657 (+*Amer. Ant.* 46, 1981:662-665).

New Archaeology is NOT a revolution, since:

A. **Kuhn's concept of "paradigm" has different uses (21- Masterman 1970), including "metaphysical paradigms= general 'worldviews'; "sociological paradigms"= a set of scientific habits; and "artifact/construct paradigms = tools and techniques for solving particular problems.**

B. **Kuhn's view that each paradigm totally replaces its former cannot be supported- clearly paradigms can and often do built upon each other.**

Meltzer: revolution in science happens only if the change is in metaphysical paradigms.

Changes in theory and method (in social and construct paradigms) are not any 'revolution but routine events in the history of science. Metaphysic change means that one now can think the hitherto unthinkable.

New archaeologists claim that NA was a revolution, but cannot define in what exactly, or even in what stage we are now (1979): some say the pre-paradigmatic stage (Zubrow 1972); others- post revolution paradigm (Martin 1971); yet others- in the midst of a revolution (Hill 1972).

Meltzer : New Archaeology changed only the method/s. e.g., culture as a system existed earlier in OA (Rouse 1953). The difference between OA and NA is that NA calls to be explicit about the elements of culture that may not be all apparent in the A' record. But that is a concern of method- of how we treat the A' record.

The "basic components of the archaeological metaphysics" remained the same.

Meltzer concludes: **"there is very little of NA that cannot fit on the same linear continuum with the OA… There has been no revolution in archaeology. (p.654)… The goal of A in the 1960s was to become a different discipline, a new "paradigm" was to be created and it was to be explicitly scientific and evolutionary… Unfortunately the source of the method was the philosophy of science rather than science per se… What was to be revolutionary A' ended up… being a variant of anthropological functionalism… The ambiguity evident in the use of the Kuhn model demonstrates the ad hoc nature of the New Archaeology. Apparently no one knows what it is" (p. 655).**

The problem is that he took the OA 'paradigm' only from two sources – Krieger, and Willey and Philips:

1. **"Identifying distinct patterns of behaviour…[can] serve as the tools for the retracing of cultural development and interactions… It is therefore the task of the analysis… to recover the mental patterns which lay behind these manifold works (Krieger 1944:272- on typology in *Amer.Ant.*).**

2. **"The a' [must] find forms and systems of forms that are not only comparable to each other but also comparable to, or compatible to, the forms and systems of forms of cultural and social anthropology (Willey and Philips 1958:6).**

Meltzer, allegedly OA=NA: "The A' *record* was, and is, viewed as a special case *anthropological* phenomenon. *Artifacts*, pottery distributions and the like are treated as if they were *systems* of *fossilized behavior*, capable of reconstruction in *anthropological* terms".

This fits only NA! OA 'metaphysic' is: Archaeology is a special case of *historical* phenomenon. *Classification* of *types* of *objects* in place and time are treated as *cultures* that represent *peoples* (ethnic groups), capable of reconstruction in *historical* terms. [*development*/*deterioration* of *cultures* seen as result of *diffusions*, *influences* and *immigrations*].

Hence, NA is clearly a revolution, since it enables archaeologists to think in anthropological terms, an 'unthinkable' in 'Old' = Historical archaeology.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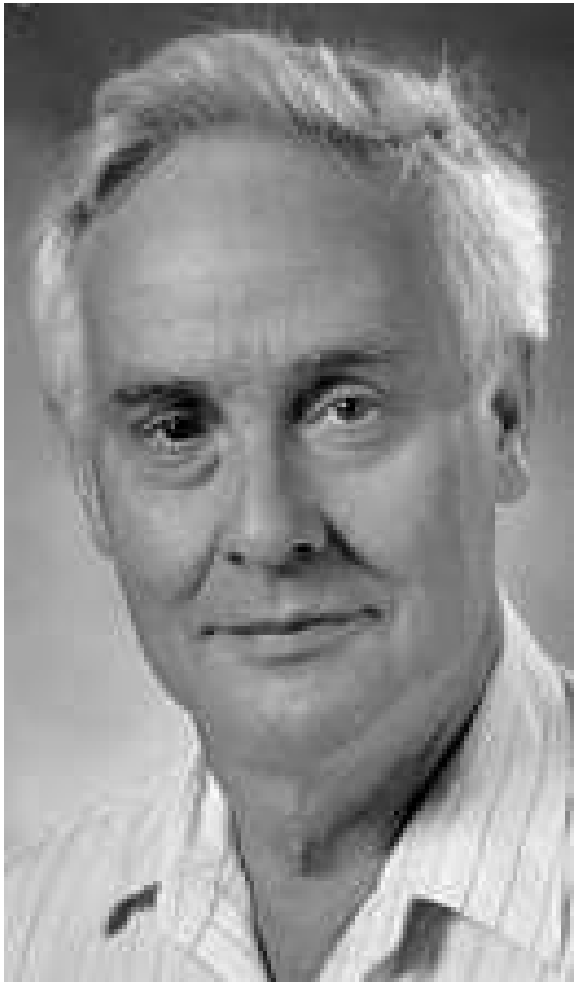
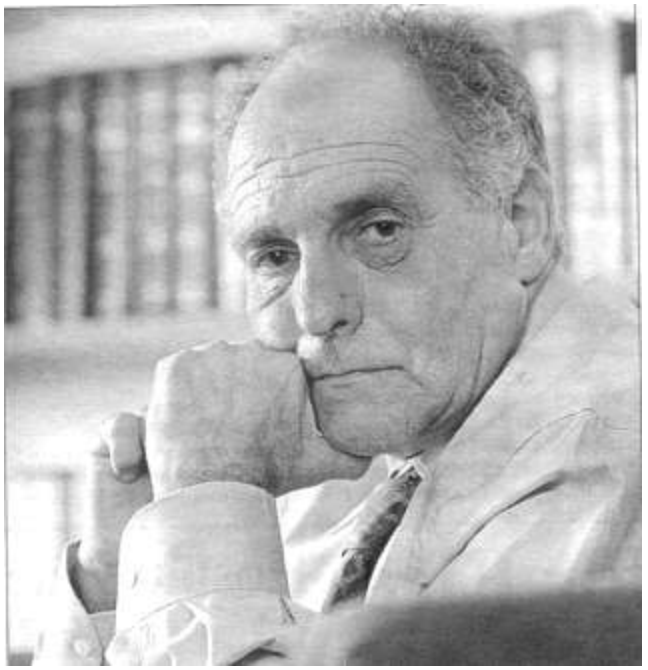
QUIZ

"Post-Processual Archaeology" (since 1980s)

- **Return to history/historical explanation.**
- **Stress on ideology/interpretation.**
- **Many archaeologies: Symbolic, Cognitive, Historical, Post-collonial, Neo-marxist, Post-structuralist, Gender,.**
- **Humans as active agents.**
- **Pots are not people (new understanding of ethnicity).**
- **Relation to Post-Modernism (there is no objective truth; scholars create pictures of the past, never exact reconstructions of the past).**



Benedict Anderson



Ernest Gellner

Ian Hodder

Claude Levi Strauss (1908-):

Anthropological Structuralism

Born 1908, Brussels.

Studied Law, in 1931 moved to Philosophy

1935-9 joined a mission to Brazil and studies tribes (relatively for short periods with some language knowledge).

1939- return to France, escaped to NY

1939-7: US, mainly NY, formative years (Boas, Jacobson).

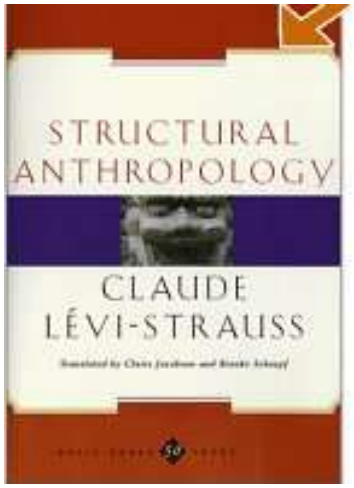
1948- Paris, PhD (2 vols, incl. "Elementary Structures of Kinship).

1955- major fame with "Tristes Tropiques".

1958/9- chair, sociology+ "Structural Anthroplogy"

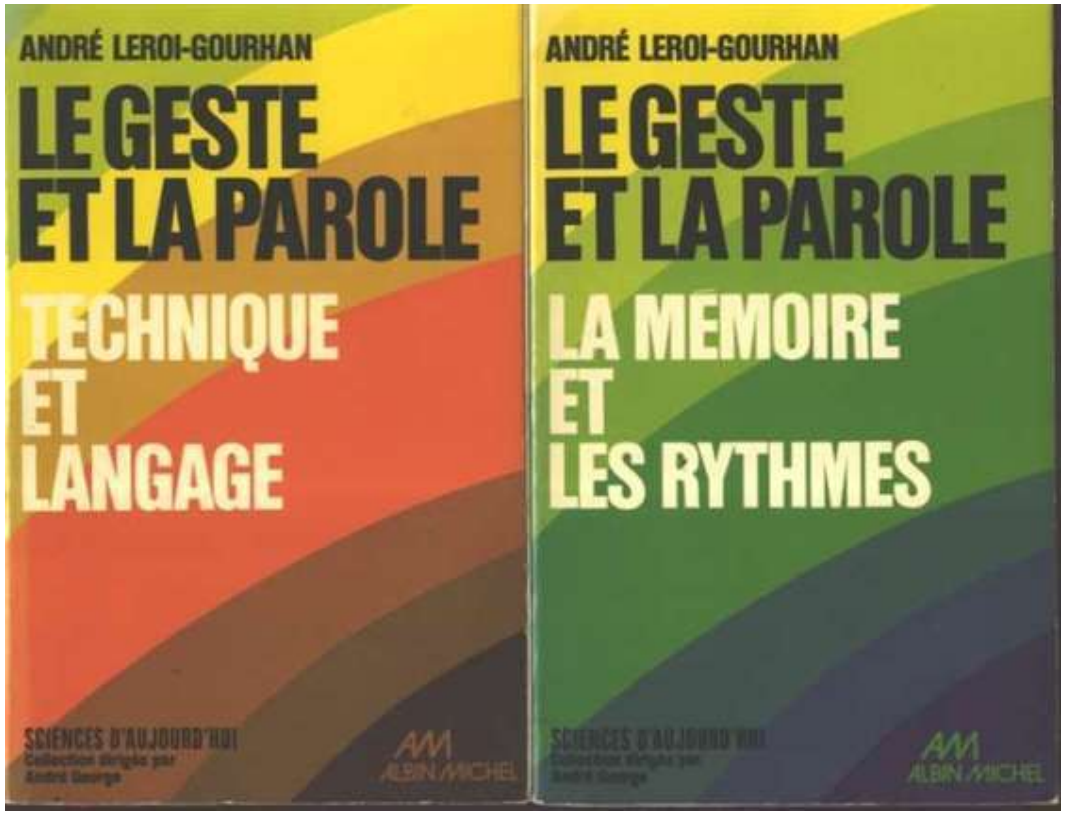
1962- "The Savage Mind".

1971+3 Mythologiques" [4 vols].



Example in Archaeology

Leroy-Gourham (1965)



Leach 1973 - predicted the arrival of structuralism to A'- it already existed.

But L-G was secluded and not widely influential

L-G for example reached the structure:

Female:male :: 'full' geometric motifs:'thin' motifs

Example of Structuralism in Archaeology - Tilley 1991

A study of Swedish rock reliefs (Mamforsen), he identified 7 designs that re-occur, including boats and elks. The then claims that there are the following binary oppositions:

Elks:boats :: land:water

:: nature:culture :: inside:outside

Hodder: but if the "boat" is a sledge, it ruins the building!

Fig. 4. Types of elk–boat associations from different carving surfaces at Nämforsen on which only elks and boats occur. A: nearity; B and C: opposition; D: linearity and opposition; E: three examples of merging elks and boats taken from different carving surfaces; F: linearity, opposition and superpositioning. Reproduced with permission from Tilley 1991.

General Criticisms of Structuralism

1. **Lack of Agency.**
2. **A-historical.**
3. **Favoring deterministic "structures" over people's actions.**
4. **Stress (since 1980s) of the ambiguity of language- not on it logic structures- means it might not be a good metaphor for archaeological theory.**

Post Structuralism

Emerges in 1960s in France, again not "one" theory. Major scholars: Foucault, Derrida, Lacan, Barthes.

Emerges from critiques of structuralism, disillusion with (orthodox) marxism of the USSR, together with interest in alternatives (feminism, neo-marxism, etc). Basic assumptions:

1. **Concept of "self" as singular, coherent entity is a finctional construction. An individual has inner conflicts/tensions and knowledge claims (gender, profession, class). In texual study readers must understand how the text relates to their own concept of self (self-perception = critical role in interpreting meaning).**

2. **The author's meaning is secondary to that perceived by readers. Texts have many meanings, not one. Readers create different meanings based on their selves, times, etc. Also outside texts, this is true whenever we perceive signs.**

Post Structuralism

(cont.) The signified (Saussure =meaning) is constructed by an individual from the signifier (Saussure's 'sound', so the signified "slides" under the signifier- hence they speak about "primacy of the signifier").

3. Trying to present multi-voices or -interpretations on the same text (data) – even if they conflict with each other; and ask how the meaning changes in relation to variables, especially to different readers.

Lack of authoritative "author" – replaced by many readers means "decentering"; stress on how knowledge is produced.

No hierarchical binary oppositions, but relations of power between terms- by Deconstruction of the assumptions and knowledgethat produced illusory singular meaning to such terms. The study of the structures is itself structured or culturally conditioned and subject to biases of all sorts.

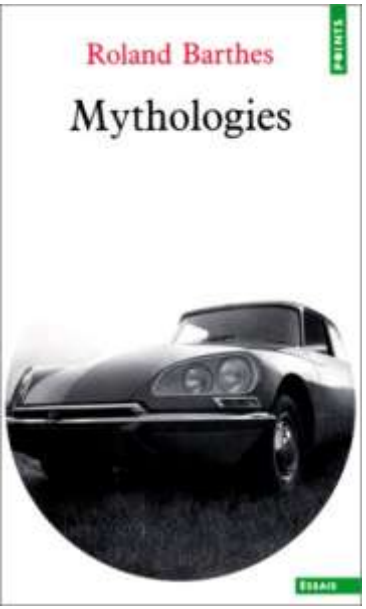
Roland Barthes

First a structuralist, in 1967 published the influential "Elements of Semiology" and anounced "the Death of the Author". The author is not the prime or only sourse for the meaning of a text. Any literary text has many meanings at the same time.

Concept of "metalanguage" = way of speaking about concepts like meaning and grammer beyond language- symbols replace words.

The reader adds new meaning/s with time to the text.

(Borges on Kafka).



Michel Foucault

1926-1984

Son of surgeon, learned in ecole superiuer, depression – psychology

1950-3 communist, left because of USSR attitude.

1954-8 culuttral attache Uppsala

Tought at Warsaw and Hamburg, 1960 back in Paris.

PhD 1961 'Maddness and insanity = 2006 History of maddness.

1966 *Les Mots et les choses* (The Order of Things).

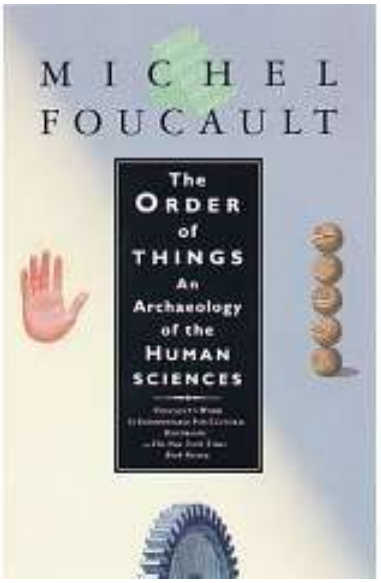
1968-70 Paris experimental new un.

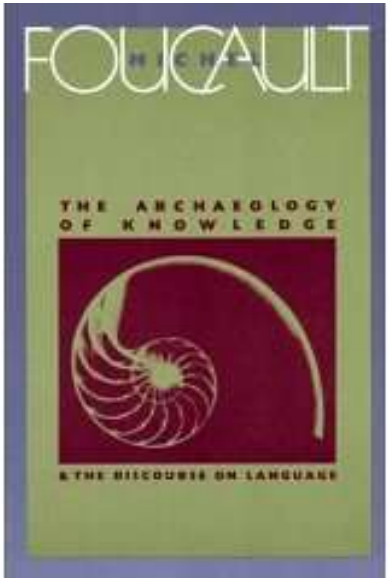
1969 *L'archéologie du savoir* (The Archaeology of Knowledge)

1970- College du France; later teaching in the US at Buffalo and Berkeley.

History of Sexuality 1976ff (6 vol, unfinished).

Died of AIDS 1984.





Charles Sanders Peirce [‘purce’]

(1839-1914)

American philosopher, logician, scientist.

Charles Sanders Peirce [‘purce’] (1839-1914) was an American philosopher, logician, and scientist. Peirce is known for being the primary founder of pragmatism, and the source of semiotics as a general theory of representation and interpretation.

He worked for many years in the U.S. Coast Survey but never got a permanent academic position, probably because of his difficult personality. Scandals involved in the divorce from his first wife (1983) and marriage to a second maybe explain his dismissal from position as lecturer at Johns Hopkins University in Baltimore. In 1887 he moved to Milford, Pensylvania, hoping to create an intellectual estate, but becoming poor.
Peirce wrote many articles- never a book. After his death, he became widely credited as a precursor in many important fields of philosophy / logic.

Peircian Semiotics

Especially important in this model of the sign is the presence of the interpretant as an explicit component. Since the interpretant is *created* by the observer, the object is not given, but *inferred*. This makes a sign's meaning highly dependent on context. With two different interpretants, a single representamen can have two different meanings. Similarly, a single object can be represented by two different "things". In both cases, we are dealing with two different signs.