Stuart Hall begins his influential “Encoding/Decoding” paper, authored in 1973 at the Centre for Contemporary Cultural Studies at Birmingham University, by reasoning:

Traditionally, mass-communications research has conceptualized the process of communication in terms of a circulation circuit or loop. This model has been criticized for its linearity — sender/message/receiver — for its concentration on the level of message exchange and for the absence of a structured conception of the different moments as a complex structure of relations. But it is also possible (and useful) to think of this process in terms of a structure produced and sustained through the articulation of linked but distinctive moments — production, circulation, distribution/consumption, reproduction. This would be to think of the process as a 'complex structure in dominance', sustained through the articulation of connected practices, each of which, however, retains its distinctiveness and has its own specific modality, its own forms and conditions of existence. (p. 128)

This was a direct critique of the Shannon and Weaver’s infamous model or circuit of communication, first published in 1949. The Shannon-Weaver model was based on Shannon’s “A Mathematical Theory of Communication,” published in 1948 in the Bell Telephone System Technical Publications. Working for Bell Labs, Shannon was interested in the transmission of information over telephone lines. Weaver was Director of Natural Sciences for the Rockefeller Foundation and interested in machine translation. Instead of improving the lines to reduce interference or noise, Shannon and Weaver proposed that the best solution was to package information more efficiently, in bits and packets. Eventually they turned to channel or carrier capacity to move more bits from source to destination. Shannon and Weaver simplified the communication process into a model of information transmission (Figure 1).

![Figure 1. Shannon and Weaver’s model of communication. Adapted from Shannon and Weaver (1949, p. 7).](image)

Hall completely retheorized communication and media in the Shannon and Weaver model by noting that information was transformed in flows from source to destination through an encoding / decoding process (Figure 2). Hall noted that communication and media structures must yield encoded messages in the form of a meaningful discourse. The institution-societal relations of production must pass under the discursive rules of language for its product to be 'realized'. This initiates a further differentiated moment, in
which the formal rules of discourse and language are in dominance. Before this message can have an 'effect' (however defined), satisfy a 'need' or be put to a 'use', it must first be appropriated as a meaningful discourse and be meaningfully decoded. (p. 130)

Figure 2. Encoding/Decoding model or circuit. Adapted from Hall (1980, p. 130).

The encoding / decoding process is the articulation between moments in the circuit of culture. It is an intervening or mediating process by which messages or products transpire from moment to moment— from production to consumption to waste, etc. Again, Hall (1980) initially theorized the circuit of culture as “the articulation of linked but distinctive moments - production, circulation, distribution/consumption, reproduction” (p. 128).

Johnson adopted Hall’s initial framing of capital and cultural “to represent a circuit of the production, circulation, and consumption of cultural products” (p. 46). “Each moment or aspect,” he noted, “depends upon the others and is indispensible to the whole. Each, however, is distinct and involves characteristic changes of form” (p. 46). True to Hall’s framing, readings or consumption of cultural texts were shaped but not determined by production and social relations. Each moment is articulated, but not given over in determined form by another.

Figure 3. Johnson’s (1986, p. 47) Circuit of Culture.
Hall’s “circuit of culture” was modified yet again in *Doing Cultural Studies* (Du Gay, Hall, Janes, Mackay & Negus, 1997) and has become a de facto model for “doing” cultural studies and media studies (Figure 4). In this circuit, representation, identity, production, consumption, and regulation are framed as cultural processes working in tandem—articulated but still operative as separate processes. Du Gay, Hall, Janes, Mackay and Negus used this model to demonstrate how these five cultural processes are inscribed into the material design and social uses of the Sony Walkman.

![Circuit of Culture](image)

Figure 4. Circuit of Culture from DuGay, Hall, Janes, Mackay & Negus (1997, p. 3).

When the process of waste, or refuse, is added to this, the circuit is an entry into a complex political ecology of design. This circuit of culture makes it crucial to pay close attention to even the most mundane of products and services (Figure 5).

The challenge is to attend to or account for nodes or moments in the circuit. While it is not necessary to attend to all, it is necessary to provide a perspective on how the nodes articulate in the circulation of meaning.
Figure 4. The Circuit of Culture takes on a complex political ecology when the ecocentric moment of waste is introduced (Feng & Petrina, 2000). Adapted from DuGay, Hall, Janes, Mackay & Negus (1997).

References


Johnson, R. (1986). What is cultural studies anyway?" Social Text 16(1), 38-80.