

1 | *Circulation and medialisation*

Putting knowledge into motion has been central to the Academy of Sciences' activities since it was founded in 1739. Through widely branching channels and networks, nationally and internationally, the Academy has collected, created and distributed knowledge.

This can be illustrated using the idea of the circulation of knowledge. The starting point is, as we have seen in the book's introduction, that knowledge is created through this circulation itself and is not feasible without this movement. This necessitates a distancing from a more traditional approach, the one that has defined knowledge formation in relation to various centres and peripheries, corresponding to the experts at universities and academies on the one side, and laypeople, recipients and the public on the other. According to this linear model of dissemination, knowledge is produced by the first group and then communicated to the second.

However, even a superficial examination of the Academy of Sciences' early *Handlingar* [*Transactions*], for example, is enough to establish that it is not actually that simple. As soon as one's gaze moves from scientific knowledge itself to the flows surrounding knowledge formation, the situation becomes considerably more complicated. Alongside scientific researchers, other actors, with somewhat differing interests, become visible. The networks – with their hierarchies and their inclusions and exclusions – that connect these actors come into focus.

This section begins in the 18th century, with an obscure member who submitted a scientific description of an unassuming fish, the viviparous eelpout. This example illustrates how knowledge and information flowed in the networks administered by the Academy. The theme is given material backing in the subsequent essay, which deals with something as apparently trivial as postage. From a circulation perspective, the formation of scientific knowledge requires technology to move objects, data, thoughts and ideas from one place and actor to another. Throughout the majority of the history we are studying, this has meant missives and packages that were sent using the



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postal service, thereby with paid postage. As we will see, there were huge consequences for knowledge circulation when the Academy of Sciences was granted franking privileges by the state.

This is followed by a couple of essays discussing the rank and file of knowledge formation, the outermost branches of the networks maintained by the Academy. We meet people who, for paid postage, submitted responses to the many prize questions formulated by the Academy, particularly during the 18th century, as well as the school children who created herbaria of local plants during their summer holidays. Altogether, these examples demonstrate how the formation of scientific knowledge is also dependent on myriad small actions communicated through the Academy's networks, performed by people far from the titles, positions and institutions of science.

In a couple of essays, we turn from science's rank and file and the networks' peripheries to focus attention on more central actors, which are also of a more recent character. The twenty or so national committees of the Academy of Sciences have been a hub for international exchange since they were created in the mid-1920s, not simply linking Swedish and foreign researchers, but also representing Swedish interests in international organisations. Similarly, the journal *Ambio*, started by the Academy of Sciences in 1972, came to be an important forum in international environmental debate.

All these examples have their special material conditions and expressions: the newspaper advert in which prize questions were announced, the herbarium of taped-in plants, the Academy's *Transactions* in which the findings relating to the viviparous eelpout were published, and so on. To use a technical term, one can say that the communication is *mediated*: ideas and knowledge are not moved from one place to another through empty space, they are carried by a medium. These media – which not only include the traditional mass media, but all material carriers of communication – are not just containers, as they also provide structure, shape and, to some extent, content in what is communicated. The media are thus an integral part of knowledge formation and essential for understanding how knowledge is formed, transferred and transformed.

The section concludes with essays discussing some of these media, specifically board games, exhibitions, advent calendars and newspaper debates. In different ways, the examples show how perceptions and ideas about science and its practitioners are packaged and communicated, in these cases to a wider public: ideas about the exalted, genius researcher; ideas about the restless scientist and revolutionary discoveries; sometimes ideas about boring, antiquated and conflict-filled science. The circulation of knowledge not only deals with the production of new knowledge, but also with the establishment and maintenance of ideas.

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