

LAND OF TECHNOLOGY – A HUNDRED YEARS OF CHANGE IN FINLAND

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Museum of technology – Tekniikan museo
Exhibition: Land of technology
Opened in October 2017

A HUNDRED YEARS OF TECHNOLOGY

What goes into the making of a modern, developed country? How can the great development from an agrarian hinterland to the home of mobile phones and clean tech be presented? What is the background story of a technologically-minded nation? The centennial of Finnish independence loomed on the horizon in 2014, when the people at the Museum of Technology started to look for answers by designing a new permanent exhibition, *Tekniikan maa*,¹ which recently opened in October 2017, just in time for Finnish centennial celebrations.

A latecomer in European terms, Finnish industrialization relied strongly on the extensive use of forests from tar to timber and pulp to packaging. While this subtext of heavy industry and vast distances in the Eurasian taiga is obvious, the exhibition relies on interaction with academic research to highlight a far more complex story of society in transition. It took the museum of technology three years to redesign the main exhibition, a process that started with a series of roundtable meetings with economists, ethnologists and historians of business and technology in order to

gauge themes and approaches. Tiina Män-nistö-Funk, a historian of technologies, wrote the scientific plan around which the exhibition grew. The manuscript was also extended into an anthology of the same name published to coincide with the exhibition.

The museum of technology shares strong ties with universities engaged in relevant historical research, whether it be the cultural heritage of industrial milieu, innovation policies or the history of big business. Interaction has also been effortless with learned societies. This relationship is by no means self-evident, even in a land of a thousand museums, but it does reflect well on the depth and breadth of the centennial exhibition of Finnish technological endeavour.

The museum space houses a second exhibition, *Etännelmiä*,² on the development of communications technology, which opened a year ago. The two can perhaps be difficult for the visitor to differentiate between due to their physical proximity and as they are thematically intertwined. Below, I will discuss this second exhibition as well.

THEMES OF TECHNOLOGICAL CHANGE

Two themes present themselves to the visitor well in advance of entering the museum: water and energy. The museum of technology can be found at the head of the bay in the old town section of Helsinki, the site of the 16th century town founded by the Swedish king, Gustav Wasa. While hardly anything remains of this sleepy little village, the rapids therein were harnessed for electricity production until the old hydropower plant became part of the museum experience. Next to it on a little island, lay the red brick buildings of the former Helsinki potable water treatment plant. The main exhibition resides in the circular sedimentation tank.



The museum of technology main exhibition seen from the lobby. The entry point is behind the cubicle in the bottom right corner of the picture.

This outwardly unimposing and largely underground building was renovated into a museum exhibition space at the turn of the 1970s after the municipal water plant was moved to nearby Viikki.

Museums of technology tend to require a large exhibition space as individual objects range from mainframe computers to very large engines. One issue curators and exhibition designers need to contend with, while planning exhibitions with such big objects, is narrative. The typical solution followed by the museums technology is to compartmentalize the exhibition into smaller, somewhat self-contained areas with well-defined themes. As the exhibition space itself is divided by a central column, a fairly natural circular route has been plotted from one theme and exhibition to another. While individual compartments allow closer examination of particular themes in technology, larger motifs stand out from the two exhibitions.

First, technological change in heavy industries is well presented in the forestry, metal manufacturing and electrical systems. Various fields of industry became intertwined during the period in question as specialization in both manufacturing and that of end-products themselves increased. This shift is tangible from the rudimentary saw frame on the one side of the exhibition and the fully developed paper machine sys-

tem on the other. The latter also exhibits the importance of cluster dynamics between industries, as Finnish machinery and metal manufacturing leapfrogged forestry technology from adoption to independent innovation.

Transportation and infrastructure presents a straightforward theme. The museum of technology belongs to a network of mobility and communications museums, *Trafiikki*.³ Members of the group have specific responsibilities in preserving and presenting cultural heritage. Many technological themes pertinent to transportation are consequently less obvious here than in other exhibitions. Focus sways from local infrastructure change over the century to early innovation to the electric car. Such a large topic could fill the space on its own and doesn't really fall within the museums focus either. A maritime historian's minute critique here is that the transport-Finland presented here, again stops at the water's edge.

The second exhibition discusses domestic technology and the role of technological change in everyday life on the one hand and related telecommunications' technology on the other. A standout element dedicated wholly to the first theme is a set of three fully furnished living rooms from the 1960s to the present, next to one another in chronological order. Leaving out the walls that normally go along with such interiors, the exhibition designers invite direct comparison between these time capsules. The inclusion of a very recent interior

Experiencing the history of computing through inter-generational story-telling. Early punch-card technology at display.

alongside the others ties the sensation of the mundane to the idea of subtle change over time. At the same time, the proliferation of various technological gadgets is striking.

The importance of communications technology in society remains a somewhat difficult theme to conceptualize despite its predominance. Finland became the land of mobile communication recently and the shocking fall of Nokia a decade ago creates an unseen subtext to any discussion therein. Communications technology divides into the expected and commonplace, and the systemic and unfamiliar. The former is easy to display in a museum vitrine while the latter demands much space and can easily appear clunky and downright boring. Radio transmitters and circuit breakers can easily be met with a nonplussed reception. The exhibition does a decent job of juxtaposing the two to nurture introspection, but as recent exhibitions on this issue have shown, this demands great conceptualization with various interactive exhibition elements. Here, I would have enjoyed a bit more help from the exhibition designers in opening this important theme.

EXPERIENCING, INTERACTING AND REIMAGINING

Tiina Männistö-Funk points out in the accompanying book that Finland lacks an all-encompassing technological history. As a museum exhibition allows for uncompli-



cated interaction with presentations of the past, I decided to test this argument by observing and interacting with a group of museum visitors exploring the land of technology. The group consisted of relatives willing, or even keen to engage in this experiment: a retired electrical engineer with a background in power distribution and EU safety regulation, a retired electrician with a life-long fascination with gadgets and two teenage boys on autumn holiday with fairly typical teenage interests. All speak Finnish and could therefore understand exhibition texts fully. We were also able to test certain accessibility features in the museum.

The test group toured the exhibition without a formal guide. While I engaged them as a historian of technology, I let them experience the exhibition at their own pace assuming the role of observer from time to time myself. The exhibition is accessed through stairs leading down from the lobby or via a central elevator with no insignificant museum value itself. The two lead to slightly different spots in the exhibition, and here my volunteers stood momentarily undecided over the course to take. Although there is a summary timeline at this starting point, the modular exhibition lacks

Engines, automation and electric postal van prototypes open the role of the Helsinki University of Technology (now part of Aalto University) in the Finnish technological tale.

a strict physical and narrative structure.

Having decided on a module to approach, the group set forward on the outer edge of the exhibition with displays of water management, energy production and heavy industries. Both pensioners immediately engaged the largely familiar material culture with stories from their careers, while the teenagers were initially more interested in the interactive elements and gadgets more familiar to their millennial experiences. An inter-generational connection was reached by an early Finnish computer and its punch card code paper rolls. The engineers story of using such a system got the attention of the younger visitors bringing welcome context to the rapid development of technology.

The land of technology exhibition presents many interactive elements. The teenagers took to this and continued their search for more experiences. While key texts are printed on the walls, much of the information can be found from touch-sensitive displays throughout the exhibition, which function like tablet computers. This worked as any present-day person with experience in mobile computing would expect it to. All in all, the interactive elements were easily recognizable and easy to use, inviting visitors to engage in actions beyond mere lounging and gazing.

The test group was clearly animated by the experience and found the theme important. The exhibition space has good



lighting due to its physical location, which certainly helps accessibility. Meanwhile, some texts on the walls had fairly low contrast due to the currently fashionable colour palette. The boundary between the two exhibitions went unnoticed by the group. In discussion afterwards, the participants understood the two exhibitions as parts of a whole, while the temporary photographic exhibition on the development of Finnish electrical engine manufacturing at Strömberg, situated in an upper gallery, was clearly seen as a separate affair.

FINNISH TECHNOLOGICAL STYLE

Museums largely rely on independent actors, organizations and institutions for their collections. While the museum of technology has decades of cultural heritage to draw from, an ambitious concept such as the history of technology in Finland will have stretched its resources. The museum sought corporate collaboration in anticipation of such issues with good success. The themes of technological innovation, heavy industry and transportation were especially rich with

recent examples and developments tying history to present day issues.

Collaboration and careful management of scarce resources remain at the core of Finnish technological culture. This carries over to cultural heritage cooperation with corporate actors as well. Equally significantly, interaction between specialists in the museums and universities has a long, if patchy, history. The actual land of technology is a land of close networks of people and information. Such ephemeral concepts remain difficult to open in a museum setting, and here again, the accompanying book expands on the exhibition and delves more deeply into the embodied technological phenomena in Finland. Historians of technology have argued recently that this country can't be understood without the inclusion of these ideas and the technology used to imagine, construct and maintain them.

The messy complexity of societal change from agrarian to industrialized, rural to urban, and peripheral to well-connected, makes for difficult story telling without resorting to easily identified, stereotypical stories. The exhibition and the book both celebrate the history of Finnish technological change over a century and half and challenge some of its narratives. They present a practical and tangible kaleidoscope that still succeeds in portraying a heterogeneous narrative, despite the unsurprising nationalist undercurrents of Finland's centennial celebrations and the times we found ourselves in. This is hardly the only story that can be told of Finnish technology through the last century, but it is the suitably and ambitiously one that resonates with the issues of the day.

The author is the incoming editor-in-chief for *Tekniikan Waiheita* for 2018, a PhD researcher at the University of Helsinki and the former curator for the Finnish Coast Guard Museum in Kotka, South-eastern Finland.

¹ Land of technology.

² Dreams of distance.

³ Traffic, <http://www.trafiikki.fi/>. Finnish professional museums have coordinated collection responsibilities and cooperation over the past decade to enhance coverage and offset costs. Information on the TAKO-process is available in Finnish, <http://tako.nba.fi/>.

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Info

Museum of Technology
<http://tekniikanmuseo.fi/in-english/#>
 Viikintie 1, 00560 Helsinki, Finland

Opening hours:

Tue-Wed, Fri 9.00 – 17.00

Thu 9.00 – 19.00

Sat-Sun 11.00 – 17.00

Closed on Mondays.