The Varied History of Finnish Health Care Buildings

– Guidelines for Reuse and Refurbishment

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INTEGRATED Healthcare Design

- Network of expert companies
- Offers comprehensive overall solutions, integrated delivery
- Development and research a major focus

Development of Health Architecture in Finland 1945-2000 (TEHO)

- Study conducted at the behest of the National Board of Antiquities
- Aimed to form a picture and recognise the qualities of the health care built environment of the latter part of 20th century
- Interesting finds during the study were the variety of different ways health care buildings had been commissioned and the different roles they had played as parts of the several systems of different types of care provision
Finnish Hospitals – varied origins

Most of the early hospitals were state-owned

Affluent towns and municipalities had the means to hire professionals and establish their own hospitals

Mental health and tuberculosis had completely different parallel organisations

The first hospital founded by a league of municipalities in collaboration was Harjavalta district mental hospital in 1902
The major changes in hospital legislation 1945-2000

1943 Law on general health care, law on Central Hospitals (Keskussairaalahaki)
   • the groundwork was laid down for the creation of a nation-wide Central Hospital network for Tertiary Care

1944 Law on nurses, midwives and maternal/child services (Neuvola, terveyssä)

1956 Law on University Central Hospitals and Hospital Law (Sairaalalahaki)
   • made municipalities responsible for all healthcare
   • 21 central hospital districts created
   • It was made possible for municipalities to join together in establishing Regional Hospitals for Secondary and Tertiary care (Aluesairaalat)

1972 Law on Primary Care (Kansanterveyslaki)
   • a primary care health centre established in every municipality (or in collaboration)

1984 Law on State Subsidies for Planning and Organisation of Social and Health Care (SVOL)

1991 Law on Special Care (Erikoissairaanoito) haki)
   • The separate district organisations of general hospitals, psychiatric hospitals and tuberculosis sanatoria/infectious disease treatment were integrated into the 21 hospital districts.
First types of hospitals that were built in a nationwide scale were Sanatoria and Mental hospitals

Sanatoria in general were usually
- located in peaceful, beautiful locations outside of towns
- focus on fresh air and sunlight as treatment
- sought to isolate the sick from the healthy

The high season for building tuberculosis sanatoria was the 1920's
- number of beds in the hospitals for lung and infectious diseases continued to rise until the 1950's
- After that development of medication and vaccination drastically reduced the need for hospital care since the 1950’s
  - tuberculosis care was ended in 1987 and the buildings and organisations were integrated with general hospitals in 1991
  - the last sanatorium in Kinkomaa was closed in 2000. The building was subsequently used as a rehabilitation hospital.
Psychiatric Care Buildings

The history of buildings for psychiatric care is long, but the ideology behind them has gone through many changes

- since the middle ages mental institutions were built focusing on the idea of isolating the patients from general population
- the basic function of mental hospitals still in the 19th and early 20th century was very similar to prisons

- The first hospital to be built in Finland for Psychiatric Care was Lapinlahti Hospital in Helsinki 1841
- In 1880-1900 many mental hospitals were built
- an imperial edict in 1889 made municipalities responsible for mental care. Many built institutions of their own. The city of Helsinki constructed the Nikkilä hospital in Sipoo for this purpose in 1914.

In 1952 a law divided the mental hospitals in "A" and "B" categories

- most of the old, existing (often state-ownded) large institutions became the basis of A-hospitals for severe cases
  - these had become large, but relatively closed campuses or village-like communities, where a large part of the treatment was focused on work in e.g. agricultural tasks
- several new stand-alone hospitals were built for the "B" category for "easier" patients

Development of new medication and the increasing focus on outpatient care and more rehabilitative approach changed the structure of psychiatric care

- the number of hospital "bed" started decreasing, the division of "A" and "B" was discontinued in 1977
- this development was begun already in the 1960's, but was largely realised in the beginning of 1980's
- in the period of 1983 to 2000 all B-hospitals were closed. The buildings were sold or adapted to variety of uses
General Hospitals – current situation

During last 200 years there have been different types of institutions providing care that falls in the role the General Hospital

Currently in Finland the types of General Hospitals and their main roles are

- **University Hospitals**
  - Teaching
  - Highest level Tertiary care for large areas
  - Tertiary care for their own area (hospital district)
- **Central Hospitals**
  - Secondary and Tertiary care for their own area (hospital district)
- **Municipal Hospitals**
  - Primary and Secondary care for their own area (town/municipality)
University Hospitals

1. HYKS/HUCH Helsinki University Central Hospital, Helsinki
   Meilahti Campus includes:
   • Meilahti hospital (1965)
   • Women’s Clinic (1934)
   • Eye and Ear Hospital (1951)
   • Oncology Clinic (1962)
   • Children’s Clinic (1946)
   • Children’s Castle (1948)
   • Triangle Hospital (2010)

2. TYKS Turku University Central Hospital, Turku
   – Teaching hospital since 1946
   • A Hospital (1938)
   • U Hospital (1968)
   • T Hospital (2003)

3. TAYS Tampere University Hospital, Tampere
   – University hospital since 1962

4. KYS/KUH Kuopio University Hospital, Kuopio
   – University hospital since 1972

5. OYS/OUH Oulu University Hospital, Oulu
   – Medical Faculty established in 1960
   – The new hospital buildings completed and hospital opened in 1973
The Central Hospitals – the timeline

6. **Satakunta** Central Hospital (SATKS), Pori (1936)
7. **North Carelia** Central Hospital (PKKS), Joensuu (1953)
8. **Åland** Central Hospital (ÅCS), Maarianhamina (1953)
9. **Savonlinna** Central Hospital (SKS), Savonlinna (1955)
10. **South Carelia** Central Hospital (EKKS), Lappeenranta (1955)
11. **Central Finland** Central Hospital (KSKS), Jyväskylä (1954)
12. **Vaasa** Central Hospital (VKS), Vaasa (1955)
13. **Mikkeli** Central Hospital (MKS), Mikkeli (1965)
14. **Länsi-Pohja** Central Hospital (LPKS), Kemi (1965)
15. **Kainuu** Central Hospital (KAKS), Kajaani (1967)
16. **Kymenlaakso** Central Hospital (KOKS), Kotka (1967)
17. **Central Ostrobothnia** Central Hospital (KPKS), Kokkola (1970)
18. **Päijät-Häme** Central Hospital (PHKS), Lahti (1976)
19. **Seinäjoki** Central Hospital (SEKS), Seinäjoki (1977)
20. **Kanta-Häme** Central Hospital (KHKS), Hämeenlinna (1979)
21. **Lapland** Central Hospital (LKS), Rovaniemi (1988)
Regional and Local Hospitals

• Local hospitals have variable origins
  – City / municipal hospitals built by affluent municipalities and towns
  – Regional hospitals built by leagues of municipalities in collaboration
  – Some hospitals originally built as general hospitals
  – Others built as tuberculosis sanatoria or similar
  – Other built for mental care

• In the 1960-80 regional hospitals were built by leagues of municipalities
  – Regional general hospitals
  – “B” hospitals for psych. care
Hospital typologies

- The development of hospitals as buildings follow international trends and the development of treatment and technology.
Hospital typologies

Development of Finnish hospitals roughly follows the following typological trends:

• Campus hospitals in the 19th century
• Monoblock/tower hospitals 1930-1950’s
• Tower+plinth hospitals in the 1960’s
• Comb/grid typologies in the 1970’s
• Polyblock hospitals in the 1980-90’s
Size-based Classification of Health Care Built Environments

- Classification based on size, not organisation

A. **Campus Hospital** (70 000 - 300 000 m²)
  - Several buildings, even separate specialised hospitals
  - eg. University Hospitals, large “A” Psychiatric Hospitals

B. **Compact Acute Hospital** (30 000 - 80 000 m²)
  - Often composed of several wings and parts
  - eg. most central hospitals, large municipal hospital, regional hospitals

C. **“Stand-alone” Hospital** (15 000 - 40 000 m²)
  - Usually a single building
  - eg. “B” Mental Hospitals, small regional hospitals

D. **Small Local Hospital** (2000 – 15 000 m²)
  - eg. Municipal health centre hospitals, rehabilitation hospitals

E. **Ambulatory Clinic** (200 – 10 000 m²)
  - eg. Primary Health Care clinics without wards
Campus Hospital – HUCH in Meilahti, Helsinki

- 280 000 m² total space
- Area built up 1924–2014
  - Women’s Clinic (1934)
  - Children’s Clinic (1946)
  - Children’s Castle (1948)
  - Eye and Ear Hospital (1951)
  - Oncology Clinic (1962)
  - Main “tower” Hospital 1965
  - Triangle Hospital (2010)
Campus Hospital – TAYS, Tampere

- The main hospital based on an architectural competition
  - 60,000 m² built in 1962
  - Extension of 26,000 m² in 1981
  - Tower + plinth typology

- Major reform underway at the moment
Compact Acute Hospital – Rovaniemi Central hospital

• The main hospital based on a architectural competion
  – 38 500 m²
  – Last central hospital to be completed (1988)

• Polybloc-type typology
Compact Acute Hospital – Lahti city hospital

- The main hospital based on an architectural competition
  - 25 000 m²
  - Built in many stages
  - Main extension built 1969

- Typology is tower and plinth with several wings
Stand-Alone Hospital – Ohkola “B” hospital

- The main hospital based on a architectural competition
  - 7 000 m²
  - Built in 1960, later adapted to children’s psychiatric care

- Single, narrow building mass typology
Small Local Hospital – Kirkkonummi Health Centre

- The main hospital based on a architectural competition
  - 6 200 m²
  - Built in 1980, 1985 extension

- Variable typology, polybloc
Ambulatory clinic – Paavola Health Centre

- The main hospital based on an architectural competition
  - 8,500 m²
  - Built in 1976

- Monobloc typology, dual corridor
Preliminary observations after the study

- Finnish health care properties have a varied history and many have served several purposes during their lifecycle.

- Many of the buildings can be utilised in further health care use, but there are limitations:
  - New hot floor functions generally require new construction
    - Outpatient activities can often be placed in existing facilities.
  - Older building stock (pre-1960) are often more adaptable as a core for a variety of uses because of higher floors.
    - However, they require completely new building technology systems and often technical extensions.
    - Load-bearing walls set some restrictions.
  - Newer building stock (especially after 1970) are often less adaptable because of insufficient floor height and dated building technology.
    - Generally some other use than hospital functions is often preferred.
Thank you for your interest.