

Öppnar fönster upp för
hållbarhetsmål i konflikt?
Fönster, energieffektivisering och
bevarande av kulturvärden i plan- och
bygglagen



Energy Efficiency in Buildings with Cultural Values

Window replacements and change of heating systems creating a conflict of interests?

Current legislation, problems and possible solutions

Byte av värmesystem i kulturhistoriskt
värdefulla byggnader
- en balansering mellan energieffektivisering och kulturhistoriskt bevarande



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The challenge to combine two sustainability goals in conflict



- Around 40 % of the energy used in the EU comes from existing buildings
- The built environment also holds different types of cultural values
- Values which are also protected at an international, regional and national level
- Potential to reach energy goals in agenda 2030 SDG 7.3 (to double energy efficiency to 2030) and 11.3 (protect cultural heritage) EU's energy efficiency directive (32,5 %)
- EU's directive on the energy performance of buildings art 4.2a: Exceptions for cultural heritage buildings

How does the Swedish legislation and law enforcement consider and apply the different objectives? Does the current legal order promote an energy conversion where cultural heritage values can be preserved?



Town house, Akalla, built during the 1970's picture, Göran Fredriksson, 2000, Stockholmskällan.



Johannes kyrka, a sacred cultural heritage, acc. to KML, built 1890, in Stockholm. Lennart af Petersens, 1950, Stockholmskällan

New Legal Area - New Questions Arise

- Outline of today's presentation
- Cultural value and cultural historical value - legal implications. PBA - *The technical, historical, cultural-historical heritage, environmental and artistic values*
- The plan and building act covers a majority of the buildings
- How to investigate and evaluate cultural heritage values. A difference between formal and informal values.



A "green marked" building at Djurgården in Stockholm, Villa Jägarbacken, unknown, 1906, Stockholmskällan.



Tensta Allé, Lennart Af Petersens, 1971, Stockholmskällan.

The formal process - Either building permit or notification

- Requirements for building permit - 9:2 3c PBA
MÖD 2019:25 - "*external appearance is substantially changed in any other way*"= If a change is distorting or not performed with care, to the cultural heritage value of the building, it is considered a substantial change.
- 9:30 PBA *Requirements for building permit*
- Notification obligation 9:16 PBA -> PBO 6:5 p. 7 - maintenance of a building of special conservation value according to a local plan
- Starting clearance
- Inspection plan and (potentially) technical consultation



Windows before and after in MÖD 2019:25. Photo: Örebro kommun

Does the Measure require a building permit?

PBA CH 9 § 2 p. 3c - changing the colour, facing, or roofing material ... or the buildings' external appearance is substantially changed...

Inspection plan

PBA CH 10 § 7: Must be adopted to the individual case and have the level of detail to ensure... CH 8 §§ 4, 13 & 17 PBA
CH 10 § 8 p. 2: Possibility for the local administration to consult with a certified specialist for the inspection

Building permit

Starting Clearance

Obligation of notification

PBA CH 9 § 16: Even if a measure does not require a building permit, the measure may not be started in violation of the obligation to report the measure, which was announced in pursuance of provisions of Chapter 16, Section 8 (government ordinances)
-> **PBO CH 6 § 5 p. 7:** maintenance of a building of special conservation value, which is covered by protective provisions in the local detailed or comprehensive plan

Final Clearance

PBA CH 10 § 4: Construction work can not be put into use before a final clearance is issued
CH 10 § 5: Responsibility of the developer to ensure that the construction is carried out according to the PBA and decisions pursued by it

Challenges of recognizing and protecting cultural values

- Lack of a *proper registry of cultural heritage* buildings in the local plan-regulations → Probably only small part of the built environment is formally protected
- Lack of *antiquary expertise*
 1. According to 12:7 PBA - *The Building Committee must have (...) the particular skills needed for the committee to carry out its tasks in a satisfactory way* - But studies shown a lack of expertise
 2. In the building process - 10:7-8 PBA - *a consultant with cultural expertise*
- Studies shows that cultural specialists only participate in about 7 % of the errands regarding CHB
- Only 4 of 30 inspection plans discussed cultural values (although it regarded CHB-buildings)
- The state's public inquiry (SOU) 2019:68 suggests that the institute of certified specialists according to PBA are taken away although consultative bodies (e.g. Boverket) have claimed that especially cultural specialists are important to ensure that cultural values are not distorted in building processes

The challenges of recognizing and protecting energy efficiency

Balance of public and private interests PBA 2:1 and the proportionality principle

Public interests

- Cultural values - a public interest according to PBA 2:3, 2:6.
- Energy efficiency and “climate measures”, - a public interest according to PBA 2:3 and 2:6 - but rarely mentioned in applications for buildings permissions and starting clearance

Private interests

- Economic interests has often been given weight in local plan- och building decisions, whereas the interest to create a more energy efficient building has not
- However, dangerous to categorize what can be the interests of an individual? Is it meant to be “left open”?

Main findings - Window replacements - Opening up to conflicting sustainability goals? *Windows, energy efficiency and cultural values in the Plan and building act.*

A conflict between energy efficiency and cultural values?

Not formally. *Windows, the eyes of the building...* Windows are mentioned as a building component which often holds cultural values. See 8:7 PBA and 9:92 BBR.



Before and after a window replacement - t.r. a new aluminium window t.l. the old wood window. Photo of a building in Nyköping, taken by David Hansson, Sörmlands museum.

However, the practical impact of the formal protection of cultural values depends on several different factors:

1. The importance of measures being tried in advance. Lack of knowledge
3. Deficiencies in the supervision

Implications of the divided “assessment” - Distortion and care in the building permit and energy efficiency in the starting clearance. *Leading to weak EE requirements? If seeking to fulfill both the current order can be questioned.*



Above Generalltullstyrelsens the Old Town of Stockholm , picture taken 1930-1940 by Lennart af Petersens, Stockholmskällan. Below the same building an early november morning in 2020. The building has undergone became 20 % more energy efficient since the property owner added 1000 extra insulating glass. See *Goda exempel, Spara och bevara.*

Main-findings about heating systems

- The interior character - Differs from many other sorts of measures that are taken to make buildings more energy efficient
- Less thorough trial when a measure is only covered by the obligation of notification
- Installation of heating systems in buildings that are not marked out with cultural value in the local city plans falls outside any formal trial (however, does not mean that they lack cultural value)
- Crucial with sufficient building categorisation and information to the property owner
- Supervision even more unlikely to take place inside a building

THANK YOU!



Two girls looking out through a snowy window in February 1953. Photo taken by Jan Ehnemark, available at Stockholmskällan.