Colour change of Scots pine and spruce wood by steaming for renovation of wooden cultural heritages
Poster

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The colour of solid wood is sensitive to light and heat. The indoor wooden applications change their colour during decades, getting more brown and darker. The maintenance and replacing of damaged parts of old wooden constructions is difficult because of the unique aged colour. The proper coloration of the surface is usually produced using chemicals for surface modification. This method only changes the colour of the surface. If the surface is damaged the thin coloured layer disappears. Steaming can be the proper solution creating the colour matching between the old and the new wooden parts. The colour of steamed wood is homogeneous in the whole cross section. There is no risk of damage or secondary processing.

Scots pine and spruce samples were steamed applying wide range of steaming time (0-22 days) and temperature (70-110°C). Broad range of colours was created between the initial colour and light brown colour. These new colours are similar to the colours of aged indoor wooden constructions and furniture. This fact gives the possibility of replacing the damaged old wooden parts by properly steamed new ones. This method also allows us to produce old looking furniture and other indoor wooden applications.