



# Transportation Project Subway - Stockholm, Sweden

Janel McCaffrey

September 24, 2009

# Subways

- generally unpleasant
  - damp, dirty, aged
- still popular
  - affordable
  - rarely affected by weather
  - no traffic
- needs improvement!



# How do subways contribute to green design?

- Reduction in greenhouse gases
- Less traffic congestion
- Underground
- Use electricity



# How does Stockholm's subway contribute to green design?

- All subways run on electricity from renewable resources
- Reduces greenhouse gases
- High ridership



# Stockholm's Congestion Tax

- tax on vehicles entering or leaving the city
- 70% of trips during rush hour are now made by public transit
- lowering of emissions by 10-14%
- air quality has been improved by 2-10%



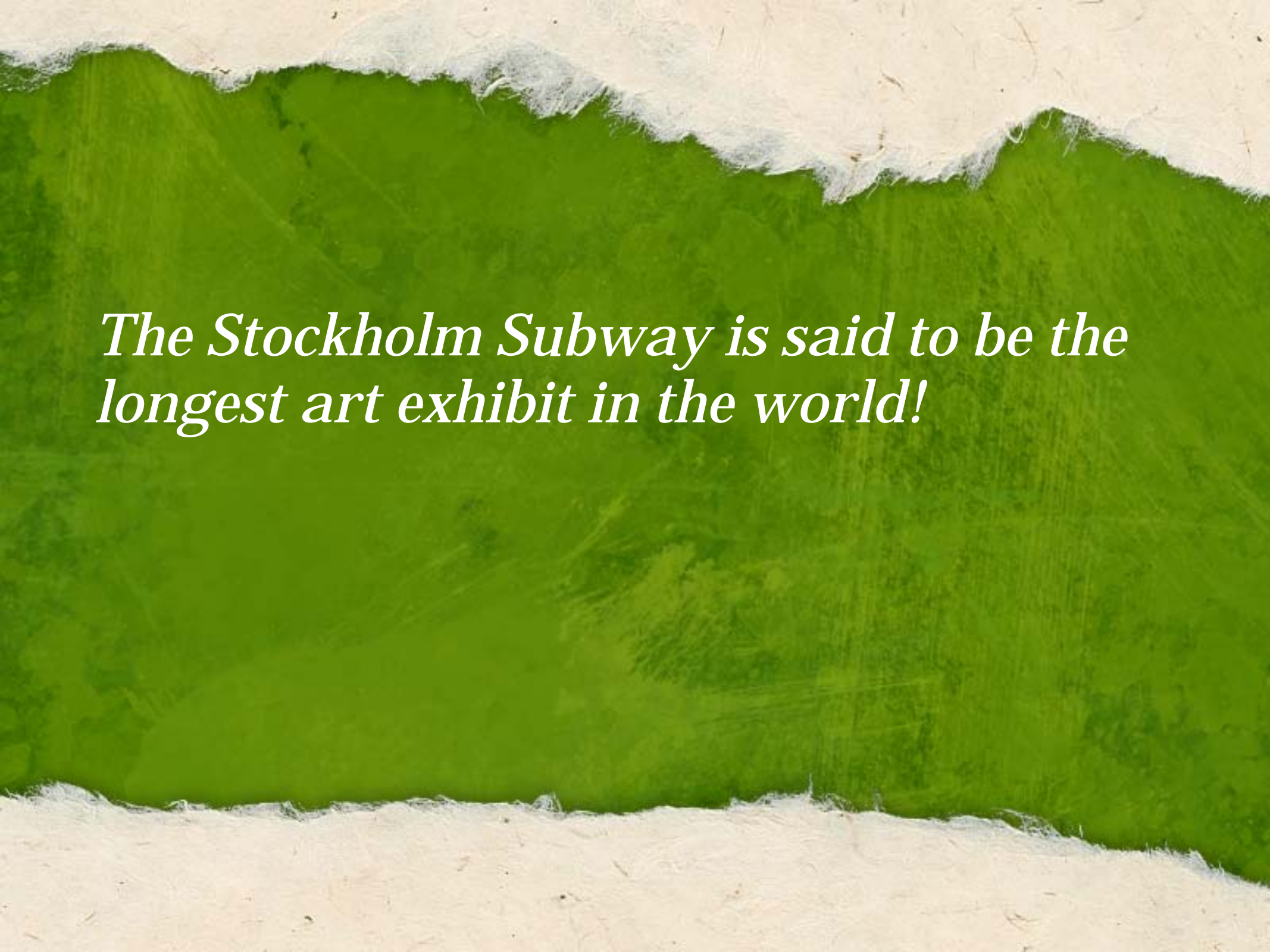
Beatley, 109  
European Green  
Capital

# Can a subway have a pleasant atmosphere?

Yes, in Stockholm!

- clean
- well lit
- informational
- artwork





*The Stockholm Subway is said to be the longest art exhibit in the world!*

Over 90 of the 100 subway stations in Stockholm have been decorated with sculptures, mosaics, paintings, installations, engravings and reliefs by over 150 artists.



**Photo** [from SL's free metro art booklet]: Platform of T-Centralen station on the Blue Line, designed by Per Olof Ultvedt in 1975.



natural rock, cavernous, bright color



More examples of subway art...

# Some points to debate...

## Costly

---

- Congestion Tax System
- Subway maintenance
  - graffiti free
  - clean
- new tunnels and commuter lots

## Unhealthy?

---

- Possible cases of lung cancer among subway drivers

# Conclusion

- aggressive efforts towards sustainability
- first winner of European Green Capital Award in 2010
- Future: attempt to harvest energy from commuters!



European Green Capital



**Thank you!**