

Ecosystems services in design and planning

Is there (academic) interchange?

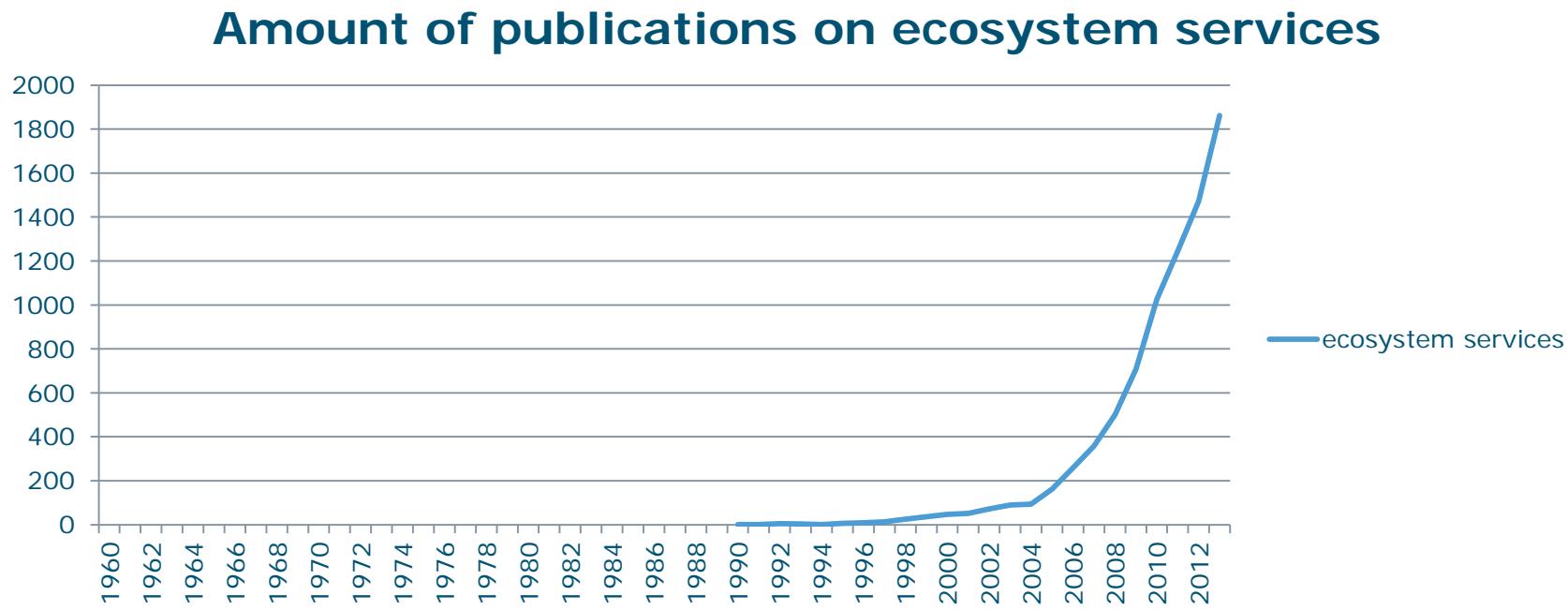
11 June 2014, Martina J.H.M. van Lierop



Ecosystem services

The goods and services that natural environments provide to people and contribute to human well-being

- Growing body of knowledge



Ecosystem services in design and planning

Benefits

- Base designs on knowledge
- Make design decisions more transparent and measurable
- Determine the values of landscapes for stakeholders
- Identify and assess ecosystem services in designs and plans
- Identify the supporting landscape structure for people's values

Landscape architecture

- Landscape design
 - Site level & specific end state
- Landscape planning
 - Strategic level & over long time scales
- Landscape management
 - At level of one or many sites & ongoing process

Landscape architecture

■ Landscape design

- Site level & specific end state

■ Landscape planning

- Strategic level & over long time scales

■ Landscape management

- At level of one or many sites & ongoing process

Related to urban planning and design

Landscape architecture

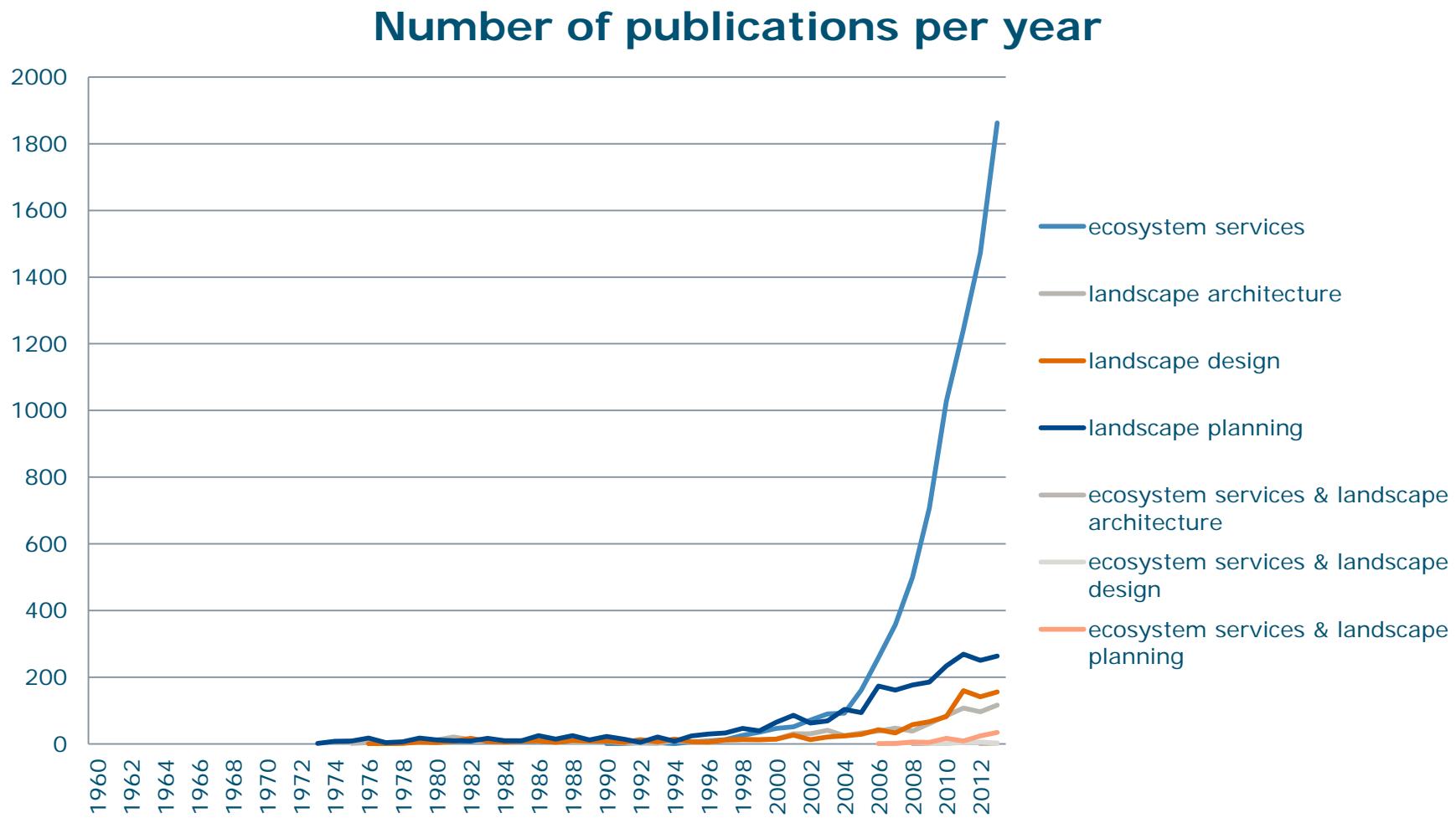


Landscape architecture

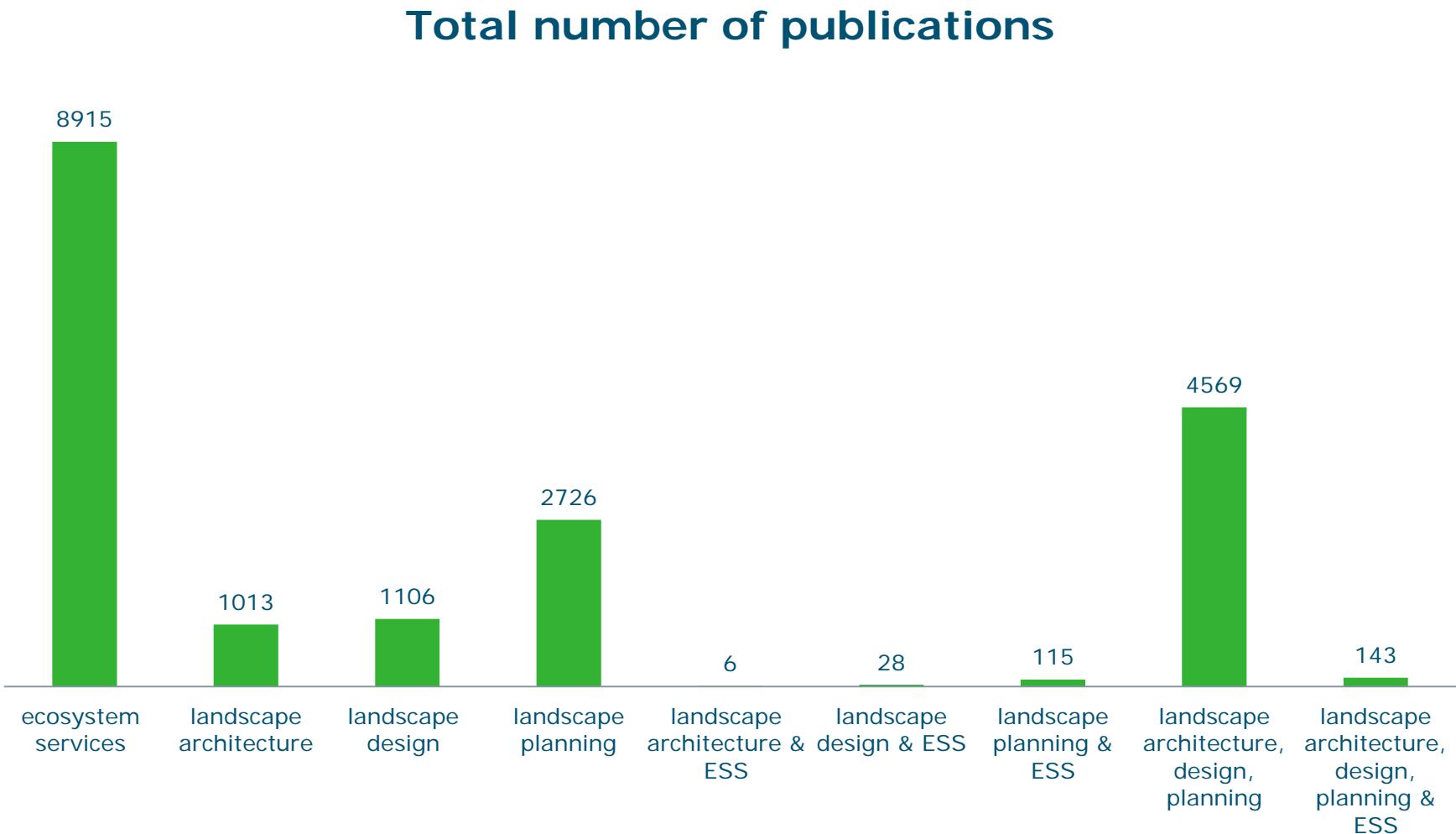
“For the conservation and enhancement of **landscape resources** for the benefit of current and future generations” (Thompson, 2000)

Already Frederick Law Olmsted took **the functions of the landscape** in consideration in his designs (Meyer, 2008)

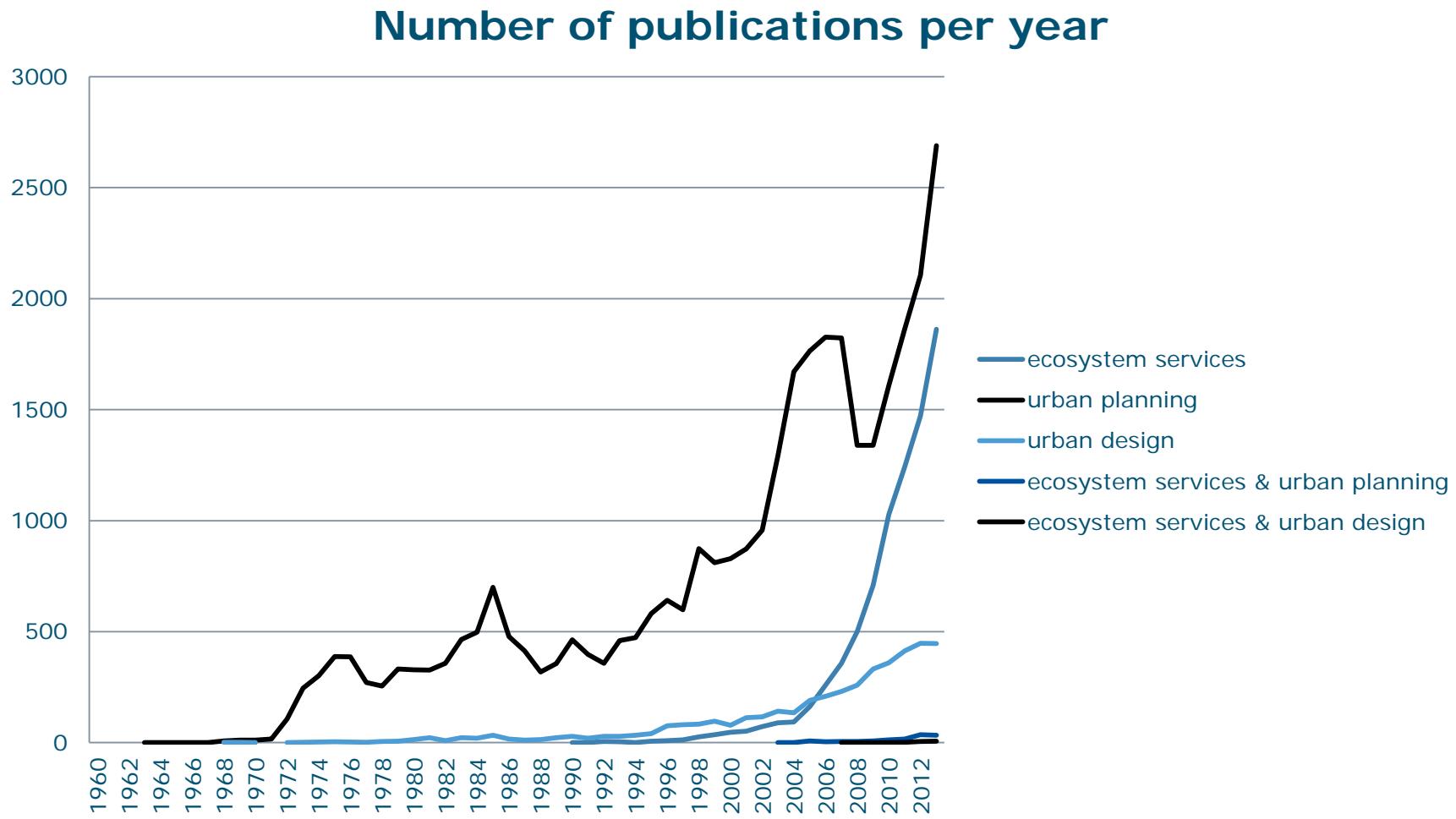
ESS and landscape architecture in academic publications



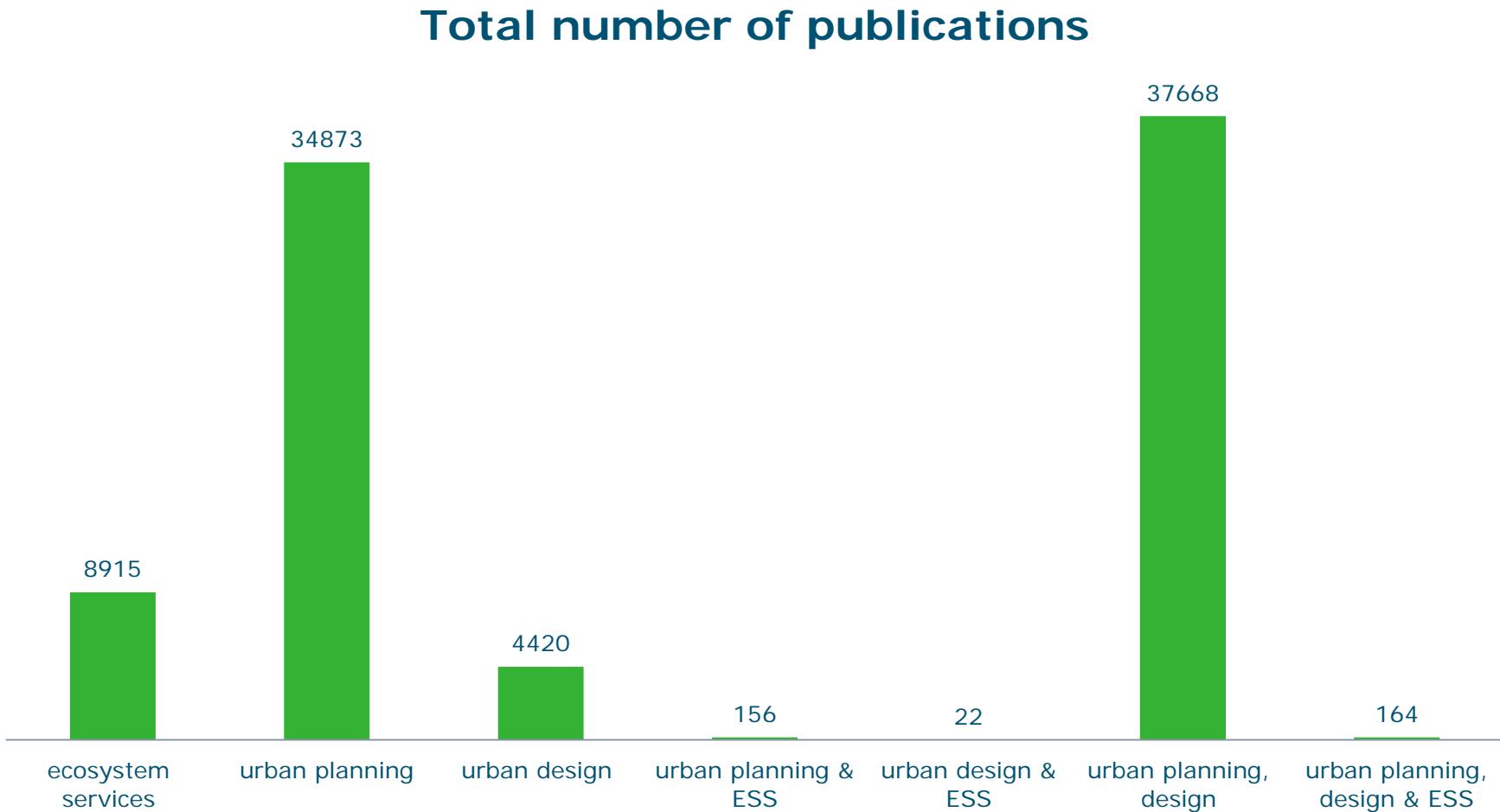
ESS and landscape architecture in academic publications



ESS and urban planning & design in academic publications



ESS and urban planning and design in academic publications



ESS and design and planning in academic publications

3.1% of the publications on ecosystem services relates to design and planning

3.2% of the publications on landscape architecture, landscape design or landscape planning relates to ecosystem services

0.4% of the publications on urban planning or urban design relates to ecosystem services

ESS and LAR: do they work together?

Ecosystem services

rank affiliation

1 Wageningen University and Research Centre

2 Stanford University

3 Chinese Academy of Sciences

4 Centre for Ecology & Hydrology

5 Research Center for Eco-Environmental Sciences Chinese Academy of Sciences

6 Stockholms universitet

7 Sveriges lantbruksuniversitet

8 University of Wisconsin Madison

9 Michigan State University

10 University of East Anglia

Landscape architecture, design, planning

rank affiliation

1 Wageningen University and Research Centre

2 Sveriges lantbruksuniversitet

3 University of Sheffield

4 University of Melbourne

5 Arizona State University

6 Texas A and M University

7 Eidgenossische Technische Hochschule Zurich

8 University of Queensland

9 Technische Universität Berlin

10 University of Guelph

Landscape architecture & landscape design & landscape planning & ecosystem services

rank affiliation

1 Wageningen University and Research Centre

2 Humboldt-Universität zu Berlin

3 Sveriges lantbruksuniversitet

4 Research Center for Eco-Environmental Sciences Chinese Academy of Sciences

5 Technische Universität Dresden

6 Universität Hannover

7 Vrije Universiteit Amsterdam

8 The Council for Scientific and Industrial Research

9 Helmholtz Zentrum für Umweltforschung

10 East China Normal University

ESS and UPD: do they work together?

Ecosystem services

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8 University of Wisconsin Madison

9 Michigan State University

10 University of East Anglia

Urban planning, design

rank affiliation

1 UCL

2 Delft University of Technology

3 UC Berkeley

4 The University of Hong Kong

5 University of Toronto

6 Wuhan University

7 Chinese Academy of Sciences

8 Tongji University

9 University of Sheffield

10 Massachusetts Institute of Technology

Urban planning, design & ecosystem services

rank affiliation

1 Research Center for Eco-Environmental Sciences Chinese Academy of Sciences

2 University of Sheffield

3 Peking University

4 Humboldt-Universitat zu Berlin

5 Beijing Normal University

6 Arizona State University

7 Fudan University

8 Universiteit Stellenbosch

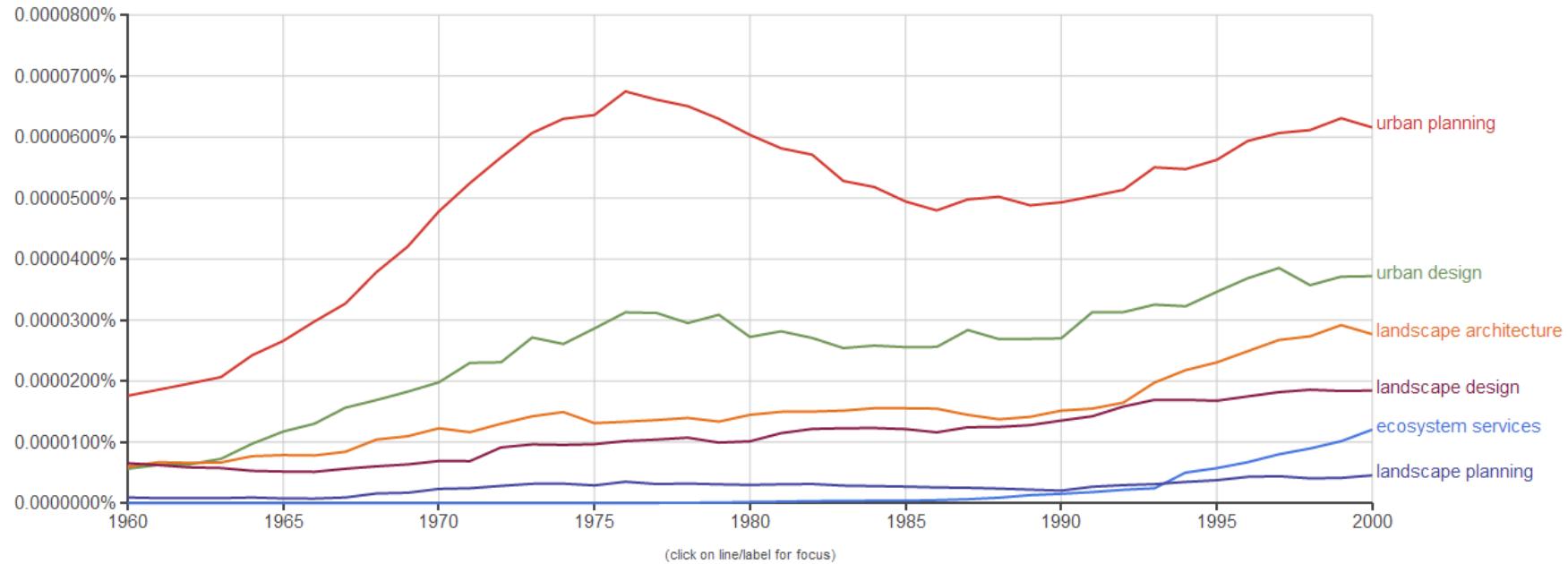
9 Kungl. Vetenskapsakademien

10 Helsingin Yliopisto

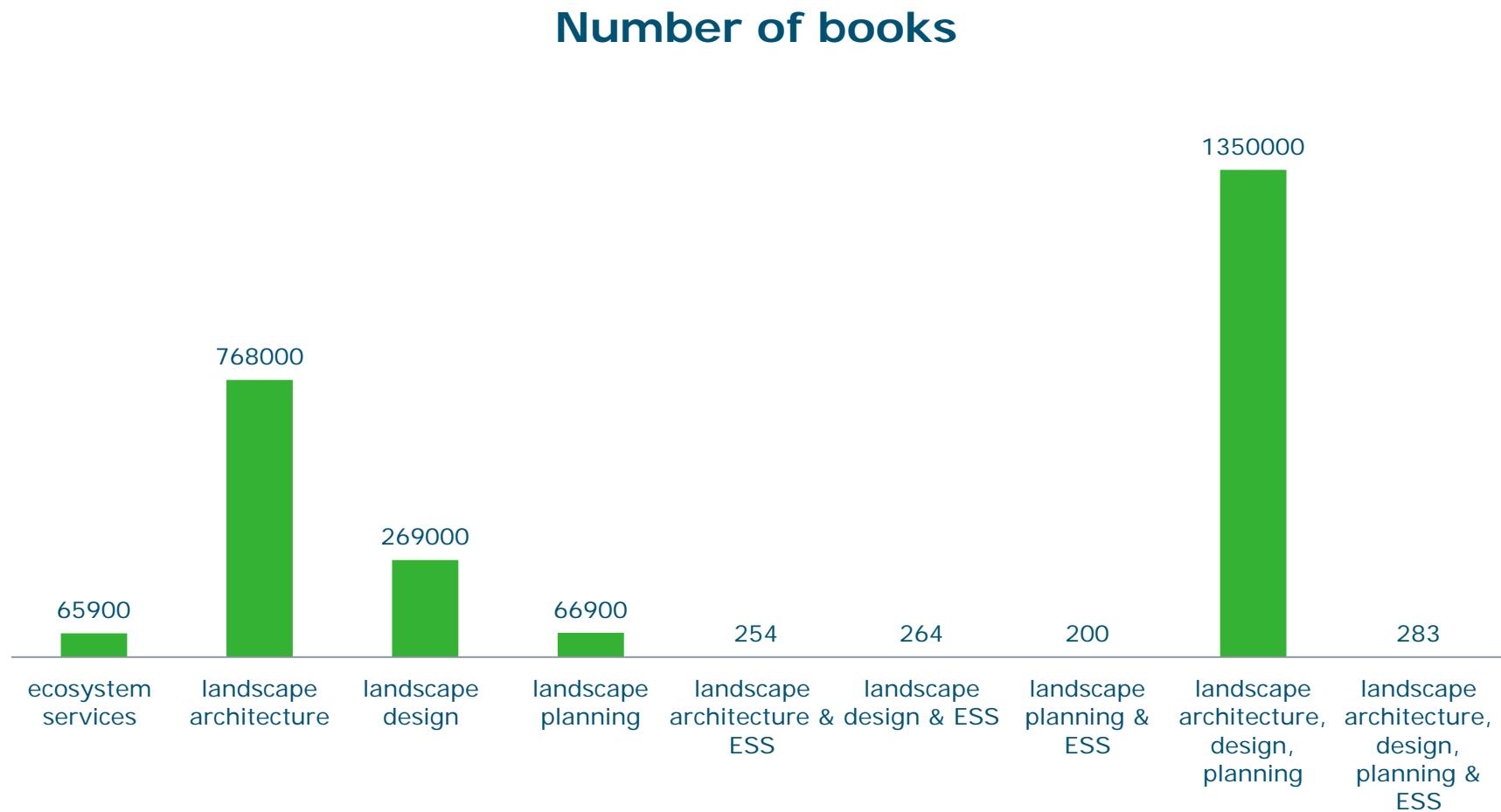
ESS and design and planning in book publications

Google books Ngram Viewer

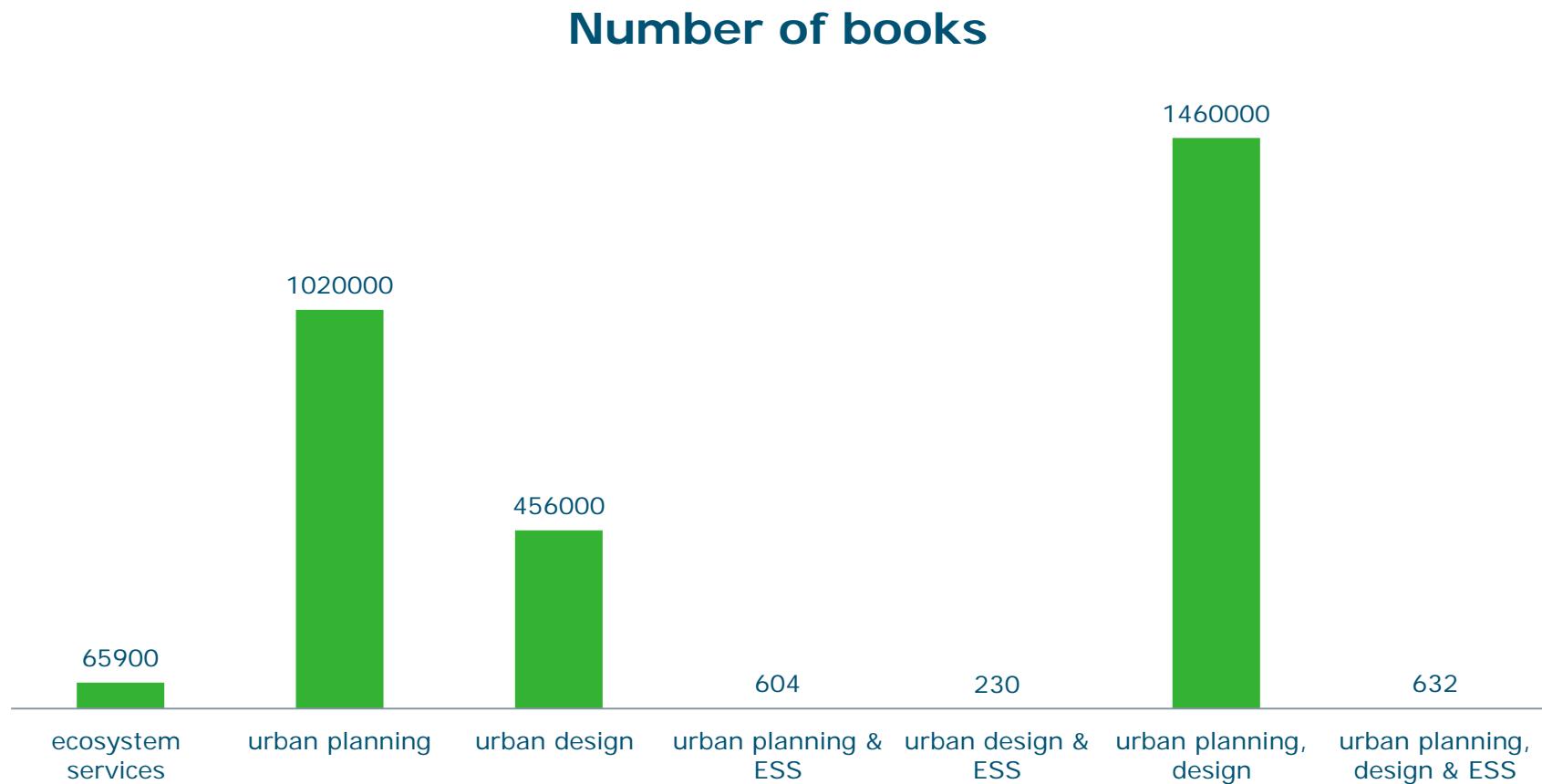
Graph these comma-separated phrases: ecosystem services,urban planning,urban design,landscape architec case-insensitive
between 1960 and 2000 from the corpus English with smoothing of 3



ESS and landscape architecture in book publications



ESS and urban planning and design in book publications



ESS and design and planning in book publications

0.63% of the books publications on ecosystem services relates to design and planning

0.02% of the books on landscape architecture, landscape design or landscape planning relates to ecosystem services

0.04% of the publications on urban planning or urban design relates to ecosystem services

ESS and design & planning: do we work together?

At first sight, it seems collaboration is starting between research on ecosystem services and landscape architecture, design and planning.

- Collaboration more on affiliations with agricultural / landscape background
- Urban planning and design
- Local scale: design
- Articles vs. books

ESS and design & planning: recommendations

- More collaboration with designers
- More attention for the local and urban context
- Work with affiliations of different backgrounds
- Think about your way of publishing
- We need to work and write more together

Design & planning for ecosystem services

- Operationalise the concept for physical implementation
- Translating and visualising ESS to stakeholders
- Thinking through scales



resíduos e ciclagem de nutrientes
Waste and nutrient cycling



Proteção contra desastres
Disaster protection

Let's work together

Thank you for
your attention!

Danke schön!

marjovanlierop@gmail.com



Ar fresco / clima Fresh air / climate regulation



Regulação da água Water regulation



Images by Cor Simon