

ALEXANDER DUNKEL

Dr.-Ing.



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EDUCATION

University of Technology, Dresden (TUD)

Doctorate of Engineering in Landscape & Urban Planning,
(Dr.-Ing., PhD equiv.), Thesis:

*Assessing the perceived environment
through crowdsourced spatial photo content for application
to the fields of landscape and urban planning;*
defended June 23, 2016 (summa cum laude)

University of California, Berkeley (UCB)

International Research Scholar at the Department of Landscape
Architecture and Environmental Planning (05/ 2011 - 06/ 2012)

First professional degree:
Graduation with Diploma in Landscape Architecture
(Dipl.-Ing., MLA equiv.), 2010

University of Technology, Dresden (TUD)

Student of Landscape Architecture, 2004-2010

Cottbus University of Technology
Student of Design and Media Technology, 2004

Born in Forst (L.), Germany, 1984

PEER-REVIEWED PUBLICATIONS

Dunkel, A. (2015). *Visualizing the perceived environment using crowd-sourced photo geodata.* Special Issue: Critical Approaches to Landscape Visualization, Landscape and Urban Planning, 142, 173–186. DOI: 10.1016/j.landurbplan.2015.02.022 ^[06]
(Selected as Editors' Choice in *Landscape and Urban Planning*)

PUBLICATIONS

Schmidt, C., Dunkel, A., Hanke, R., Lachor, M., Seidler, K., Böttner, S., Gruhl, E. (2015). Cultural Landscapes of Mittelsachsen. Project focused on strengthening identity formation for the local population (translated), funded by the State of Saxony, Dresden, 651 p.

Schmidt, C., Dunkel, A., Hofmann, M., Schneeberger, E. (2014). Shaping the Landscape Change! Opportunities in Regional Planning for designing and developing cultural landscapes in the face of intensified landscape change through renewable energy development (Original title: "Den Landschaftswandel gestalten! Potentiale der Landschafts- und Raumplanung zur modellhaften Entwicklung und Gestaltung von Kulturlandschaften vor dem Hintergrund aktueller Transformationsprozesse"), Vol. 1: Nationwide maps and overviews, Bonn, Germany, Federal Environment Agency (BfN) ^[07]

Schmidt, C., Dunkel, A., Lein, M., Seiche, K. (2014). Strategic Environmental Impact Assessment for the 2015 land use plan (FNP) (title translated). City of Dresden.

RESEARCH EXPERIENCE: VOLUNTEERED GEOGRAPHIC INFORMATION (VGI)

Research Associate, Department of Geosciences, Cartographic Communication, TU Dresden (2017-2019)

Focus:

- Interpretation and Visualization of user generated spatial content, DFG (SPP 1894)

RESEARCH EXPERIENCE: LANDSCAPE ARCHITECTURE AND ENVIRONMENTAL PLANNING

Research Associate, Department of Landscape Architecture, TU Dresden (2015)

Focus:

- GIS mapping and data analysis for research project focused on evaluating cultural landscape identity for the Mittelsachsen region (Saxony)
- Data management and visualization, integration of various official and open-source derived data, Cluster and outlier analysis, Multi-criteria decision analysis

Research Associate, Department of Landscape Architecture, TU Dresden (2012 - 2014)

Focus:

- Coordinator for research project focused on evaluating nationwide cultural landscape change induced by transforming processes of renewable energies (funded via third-party means by the German Federal Environment Agency)
- Large scale GIS maps for all German Federal States, GIS Cluster and Outlier Analysis, data aggregation and generalization
- Spatial analysis and visualization of electricity asset master data (EEG), published from electricity network operators

Research Associate, Department of Landscape Architecture, TU Dresden (2010 - 2011, 2015 - 2016)

Focus:

- Coordinator for two strategic environmental impact assessments, for the Land use plan (FNP) for the City of Dresden (2011, 2014 and 2016) and the 2020 State development plan (LEP) for the State of Saxony
- On-site mapping of biotope types and value assessment (FNP)
- Data management, multi-criteria GIS analysis, and compilation of final draft (FNP, LEP)
- GIS density analysis, regionalization of nationwide climate model (WETTREG 2010) for the State of Saxony, Climate change forecast horizon 2036 - 2065 and 2071 - 2100 (LEP)

PROFESSIONAL EXPERIENCE: LANDSCAPE ARCHITECTURE

2008 - 2009, **Peter Walker and Partners Landscape Architecture**, Berkeley

- design and construction drawings, projects: Hilltop Estate, Glenstone Residence, Skirball Cultural Center, World Trade Center Memorial Plaza, Stanford Graduate School of Business, Burnett Park Renovation

2007, **CMG Landscape Architecture, San Francisco**, sponsored by Council on International Educational Exchange (CIEE)

- Design and construction drawings, visualizations, project: Bay Meadows

2005, Foundation of Prussian Castles and Gardens, Berlin-Brandenburg, Sanssouci, Potsdam

- Biotope assessment and tree species classification, Rheinsberg Palace
- Database update and AutoCAD integration, Park administration Sanssouci

FELLOWSHIPS AND AWARDS

Nominated for Kurt-Beyer-Preis 2016 (5000 EUR), TU Dresden

Research Fellowship, TU Dresden Graduate Academy (2016)

2015 Weddle Prize, Best Paper of the Year Award for “*Visualizing the perceived environment using crowdsourced photo geodata*” in Landscape and Urban Planning (Vol. 142) ^[12]

State of Saxony Fellowship (2013)

Travel Award, TU Dresden,
for 2012 ASLA National Conference, Phoenix

Award in Research, American Society of Landscape Architects (ASLA), Student Awards 2012 ^[05]

Recognition for administration of student community forum, Landscape Architecture study program (2010),
Registered Society of Landscape Architects, TU Dresden.

TEACHING EXPERIENCE, PRESENTATIONS, WORKSHOPS

VGIscience Summer School 2017 (TU Dresden):

(Geo-)Visual Analytics Presentation "Visualizing VGI for application to the fields of landscape and urban planning" & Flickr Tag Maps Workshop

Nexus Conference 2017 Dresden, Presentation: "Identifying Perceived Characteristics and the Collective Attribution of Values and Meaning from Social Media"

Workshop on VGI data mapping and visualization at the Department of Geosciences, Cartographic Communication, TU Dresden, graduate and undergraduate level (2017)

Presentations and software workshops/courses at the Department of Landscape Architecture and Environmental Planning, TU Dresden, graduate and undergraduate level (2010 - 2015)

External committee member, master thesis (disaster mapping and remote sensing), University of Waterloo | School of Architecture (02/2015)

Student Workshops and Presentation,

„On Empathy and Data _crowdsourced mental maps“, with Dr. M. El Khafif (DATAlab), University of Waterloo, School of Architecture ^[08] and Workshop at University of Toronto, Canada (2015)

Guest Lecture, Panel Discussion and Exhibition „Open Source Cartography_ Mapping Patterns of Crowd Sourced Data“ (2012), Department of Architecture URBANlab, California College of the Arts (CCA), San Francisco ^[09]

Review panel, LA203 Studio Presentation (10/2011), UC Berkeley

Presentation „Network-Landscapes: New control options for Landscape Architecture and Environmental Planning through the use of internet-based, international, locative media data streams“, Fall 2011 Colloquium, Department of Landscape Architecture & Environmental Planning, UC Berkeley

TEACHING EXPERIENCE, PRESENTATIONS, WORKSHOPS

Research assistant, collaboration project „Community of Practice on E-Learning“ (CooPEL), TU Dresden (2007 - 2008)

Computer courses (MS Office, CAD, Nemetschek, VB.Net programming) as a research assistant at the Department of Civil Engineering and at the Department of Landscape Architecture and Environmental Planning, TU Dresden (undergraduate level, 2004 - 2007, 2009)

FREELANCE & CONTRACT WORK

- Highline Maps Book Entry, The Highline Book, Diller Scofidio + Renfro & Field Operations (New York, 2015)
- Oakland Tag Maps for „Choosing Here“, Performance/Art Exhibition on Homing (Oakland, 2015)
- Presentation graphics for Symposium *After Empirical Urbanism*, on „The Bias of Data“, with Mona El Khafif, DATAlab UW, University of Toronto, Faculty of Architecture, Landscape, and Design (2015)
- San Francisco Fort Mason Design Competition, Contributory Site Photo Data Analysis for Team WEST 8 winning Entry (2012)

MAGAZINE/MEDIA COVERAGE

What Flickr Can Teach Us About the Way We Photograph Cities. Interview, The Atlantic Cities (2013) ^[10]

The View From The Crowds. Interview, Landscape Architecture Magazine (01/2013) ^[11]

SOFTWARE AND COMPUTER SKILLS

ESRI ArcGIS and Model Builder, 9 years
Autodesk AutoCAD, 11 years
Adobe Suite (Indesign, Photoshop, Illustrator), 16 years
Adobe After Effects, Adobe Premiere & Speedgrade
(film & post-production), 8 years
Maxon Cinema 4D, Animation and 3D Rendering ^[13], 16 years
Matlab (statistics), 2 years
MS Office Suite

Core programming competencies:
VB.Net (10+ years), Python (4 years)
Java & JS, MySQL, PHP (9 years)
HTML5 and Silverlight (5 years)

Platform specific:
GIT

Leaflet JavaScript library (interactive maps)
CMS administration: Typo3, Wordpress, Opal
Amazon EC2 Cloud Server Management
Openstreetmap Contributor

OTHER SKILLS

Landscape Photographer, Getty Images Inc.
(2007 to date)
Windsurf instructor, TU Dresden Sports Centre
(2008 to date)

LANGUAGES

German (native)
English (fluent)
French (basic)

EXTERNAL LINKS & REFERENCES

- 01 **[Blog]**
<http://blog.alexanderdunkel.com/>
- 02 **[Interactive map Interface]**
<http://maps.alexanderdunkel.com/>
- 03 **[Silverlight map Interface]**
http://maps.alexanderdunkel.com/index_silverlight.html
- 04 **[Graphics]**
<http://www.flickr.com/photos/64974314@N08/>
- 05 **[ASLA award]**
<http://www.asla.org/2012studentawards/222.html>
- 06 **[Peer-reviewed publication]**
<http://dx.doi.org/10.1016/j.landurbplan.2015.02.022>
- 07 **[Landscape change, visualizations & maps]**
http://tu-dresden.de/die_tu_dresden/fakultaeten/fakultaet_architektur/ila/lp/Forschung/laufende%20Forschung/LaWa_gest_Bd1_2teAuflage_150dpi.pdf
- 08 **[Workshops UWaterloo]**
<http://datalab.uwaterloo.ca/event/workshop-public-perception-gta-visualized-through-crowdsourced-photo-geodata-gta>
- 09 **[Guest Lecture, Panel Discussion and Exhibition, CCA]**
<http://ulab.cca.edu/2012/03/open-source-cartography-16-th-of-april/>
- 10 **[Interview theatlanticcities]**
<http://www.theatlanticcities.com/technology/2013/01/what-flickr-can-teach-us-about-way-we-photograph-cities/4390/>
- 11 **[Interview landscape architecture magazine]**
<http://landscapearchitecturemagazine.org/2013/01/30/the-view-from-the-crowds/>
- 12 **[Weddle prize]**
<http://www.journals.elsevier.com/landscape-and-urban-planning/news/announcing-the-winner-of-the-weddle-prize-landscape/>
- 13 **[3DVis example]**
<https://www.flickr.com/photos/64974314@N08/8140970785/in/album-72157651373059547/>
- 14 **[Youtube Flickr Tag Maps GIS Tutorial]**
https://youtu.be/3K_oVk4vhHE
- 15 **[GitHub ClipGeo Code]**
<https://github.com/Sieboldianus/ClipGeo>