

# WHAT AN ARCHITECTURE STUDENT SHOULD KNOW

JADWIGA KRUPINSKA



# WHAT AN ARCHITECTURE STUDENT SHOULD KNOW

JADWIGA KRUPINSKA

*TRANSLATION BY SCOTT DANIELSON*

 **Routledge**  
Taylor & Francis Group  
NEW YORK AND LONDON

First published 2014  
by Routledge  
711 Third Avenue, New York, NY 10017

and by Routledge  
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2014 Jadwiga Krupinska and Taylor & Francis

The right of Jadwiga Krupinska to be identified as author of this work has been asserted by her in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Library of Congress Cataloging-in-Publication Data  
Krupinska, Jadwiga.

What an architecture student should know / Jadwiga Krupinska ; translation by Scott Danielson.  
-- 1 [edition].

pages cm

Includes index.

1. Architecture--Study and teaching. 2. Architecture students. I. Title.

NA2000.K76 2014

720.71'1--dc23

2013040695

ISBN: 978-0-415-70232-4 (hbk)

ISBN: 978-0-415-70233-1 (pbk)

ISBN: 978-1-315-79793-9 (ebk)

Acquisition Editor: Wendy Fuller

Editorial Assistant: Emma Gadsden

Production Editor: Alanna Donaldson

Cover & Graphic Design: Studio Carolina Krupinska / Cover photo: Linus Kjellqvist

Typeset in Adobe Caslon Pro By Studio Carolina Krupinska

This book has been prepared from camera-ready copy provided by the author.

# What an architecture student should know

It's not just you. Every architecture student is initially confused by architecture school—an education so different that it doesn't compare to anything else. A student's joy at being chosen in stiff competition with many other applicants can turn to doubt when he or she struggles to understand the logic of the specific teaching method. Testimony from several schools of design and architecture in different countries indicates that many students feel disoriented and uncertain.

This book will help you understand and be aware of:

- Specific working methods at architecture schools and in the critique process, so you'll feel oriented and confident.
- How to cope with uncertainty in the design process.
- How to develop the ability to synthesize the complexity of architecture in terms of function, durability, and beauty.

This book is about how architects learn to cope with uncertainty and strive to master complexity. Special attention is given to criticism, which is an essential part of the design process. The author, a recipient of several educational awards, has written this book for architecture students and teachers, to describe how each student can adopt the architect's working method.

Key concepts are defined throughout and references at the end of each chapter will point you to further reading so you can delve into topics you find particularly interesting.

**Jadwiga Krupinska** is Professor Emerita at the School of Architecture, the Royal Institute of Technology (KTH) in Stockholm, Sweden.

# Acknowledgments

Several people have contributed their knowledge and experience in the completion of this book. My colleagues at the School of Architecture, the Royal Institute of Technology (KTH), and students have given me inspiration in different ways and have been of great help. I especially want to thank Professor Claes Caldenby, Professor Johan Mårtelius, PhD Gertrud Olsson, and architect MAA Per Olsen for their viewpoints and comments in the relatively early stages of the work. My children, Konrad Krupinski and Carolina Krupinska, have been enthusiastic and involved in the whole lengthy process. Konrad Krupinski helped me as an architect, by reading the manuscript several times, providing precisely formulated constructive criticism after each reading. Carolina Krupinska, a graphic designer, established strict quality guidelines and put many hours into photographing, image editing, and book design. I can't thank them enough. I also want to thank architect Scott Danielson for his patient and accurate translation work, Hazel Johnston for proofreading, and librarian Anna Langaard for her assistance in obtaining books from a variety of collections.

Parts of the book have been written during short visits to the beautiful Kavalla, in guest lodging provided by the Swedish Institute at Athens, and on Capri, in one of the San Michele Foundation's fantastic guest houses.

The English version of this book has been published with the support of: ARQ Foundation; FFNS-Foundation SWECO; School of Architecture, the Royal Institute of Technology (KTH); I. and A.Tengbom's Foundation.

# Preface

When I started my architecture studies as a 17-year-old right after high school, everything was new and interesting. I had no problem completing the design and drawing courses and the exams in all of our subjects. But as the years went by, I understood that for me, design was something abstract. It hadn't really touched my soul. Whether that was due to the teaching or my way of thinking is unclear. I also discovered that my husband, a gifted architect, thought in a different manner than me. I called his way of thinking "to think in terms of form", but I realized later that it was more "to think in terms of flexibility". In any case, that was mysterious and difficult to understand. I believe that these observations—to not limit yourself to the abstract, to be inspired, to understand what you're doing when you're thinking design—have given me a great interest in architectural education. During my years as a practicing architect and perhaps foremost through many years of teaching at a school of architecture, these thoughts were my constant companions.

*If "form" was to be a primary category of architecture, then "design" was its necessary accomplice, for "design" is the activity which realizes form, and brings it into the world: as Louis Kahn put it, "Design calls into being what realization—form—tells us".*  
(Louis Kahn)<sup>1</sup>

Critique, as a teaching method, is especially interesting for me. Through the years I've been a critic innumerable times. This always involved the review and criticism of something the student had brought into the world from their innermost being: visions of buildings and environments that simply were not there before.

Did they really know what happened in that process; how they thought in order to succeed with their proposals? Did the teaching help them (if that is at all possible) and if so, how?

Originally I intended to write a book exclusively about critique as a method of teaching, but the uncertainties that students reveal in different studies (see Chapter 1) indicate the need for a wider perspective on architectural education. In order to demonstrate why critique is an essential part of the architect's working method, we need an understanding of the unique aspects of the architectural profession, the uncertainties of that profession, and how the status of the architect has evolved historically (Chapter 2). One should also know what skills the architect needs, and how to think during the design process, i.e. how to reach good design solutions (Chapters 3–6). Following that, there is extensive coverage of critiques and assessment reviews, and subsequently a final discussion (Chapters 7–10).

# Contents

<b>Preface</b>	10
<b>1 Student uncertainties</b>	13
<b>2 Professional uncertainties</b>	19
The architect: a historical overview	
Practitioner or academic?	
The split between architecture and construction	
A genius, administrator, or an engineer of fortifications?	
Concerns with subjectivity	
Trying to reduce uncertainties	
<i>Humble Assertiveness</i> (an essay)	
References	
<b>3 What skills are needed?</b>	49
What skills are needed—and how can they be taught?	
Scientific factual knowledge	
Scientifically based humanistic subjects	
Theory and practice in the contemporary discourse	
Technical subjects	
<i>A Few Words About Concrete</i> (a short lecture)	
Arts, crafts and skills (practical knowledge)	
Language and drawings	
References	



<b>4 Can I be an autodidact?</b>	89
Can I be an autodidact?	
The curriculum	
The experiential level	
Working toward autonomy level in the design studio	
Mastering complexity	
References	
<b>5 The design process</b>	117
What is design?	
Do architects have a working method?	
Mapping the design process	
Analysis through synthesis	
Individual variation	
Beginners and experts	
References	
<b>6 Analysis through synthesis—in practice</b>	137
Formulating the problems	
Demarcation of boundaries, dichotomy games and alternating	
The primary generator, the guiding principle, the concept	
Sketching and searching	
<i>A Summer Reflection</i>	
References	
<b>7 Criticism</b>	165
Criticism, to what end?	
Some terms	
Criticism, types and purposes	
Historical roots	
Tutoring and desk critique	
Assessment reviews	
Final examination by jury	
Research on assessment reviews	
References	

<b>8 Assessment reviews: stage and actors</b>	191
Creative personality	
Students	
Teachers	
Critics	
References	
<b>9 Assessment reviews: the presented proposal</b>	217
To identify patterns in complexity: a review in year 2	
Observing an assessment review in year 3	
Structure and criteria	
To grade or not to grade	
Suggestions for improvement	
Analyzing: aspects of power and transactional analysis	
References	
<b>10 Awareness and understanding</b>	251
Advanced-level criticism	
Risk-taking and choices	
Awareness and understanding	
Final words	
<i>Apples and Pears</i> (part of a lecture)	
References	
<b>Illustration credits</b>	282
<b>Index</b>	284

# What an architecture student should know

It's not just you. Every architecture student is initially confused by architecture school—an education so different that it doesn't compare to anything else. A student's joy at being chosen in stiff competition with many other applicants can turn to doubt when he or she struggles to understand the logic of the specific teaching method. Testimony from several schools of design and architecture in different countries indicates that many students feel disoriented and uncertain.

This book will help you understand and be aware of:

- Specific working methods at architecture schools and in the critique process, so you'll feel oriented and confident.
- How to cope with uncertainty in the design process.
- How to develop the ability to synthesize the complexity of architecture in terms of function, durability, and beauty.

This book is about how architects learn to cope with uncertainty and strive to master complexity. Special attention is given to criticism, which is an essential part of the design process. The author, a recipient of several educational awards, has written this book for architecture students and teachers, to describe how each student can adopt the architect's working method.

Key concepts are defined throughout and references at the end of each chapter will point you to further reading so you can delve into topics you find particularly interesting.

**Jadwiga Krupinska** is Professor Emerita at the School of Architecture, the Royal Institute of Technology (KTH) in Stockholm, Sweden.



# WHAT AN ARCHITECTURE STUDENT SHOULD KNOW

JADWIGA KRUPINSKA

*TRANSLATION BY SCOTT DANIELSON*

 **Routledge**  
Taylor & Francis Group  
NEW YORK AND LONDON

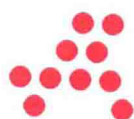


# Acknowledgments

Several people have contributed their knowledge and experience in the completion of this book. My colleagues at the School of Architecture, the Royal Institute of Technology (KTH), and students have given me inspiration in different ways and have been of great help. I especially want to thank Professor Claes Caldenby, Professor Johan Mårtelius, PhD Gertrud Olsson, and architect MAA Per Olsen for their viewpoints and comments in the relatively early stages of the work. My children, Konrad Krupinski and Carolina Krupinska, have been enthusiastic and involved in the whole lengthy process. Konrad Krupinski helped me as an architect, by reading the manuscript several times, providing precisely formulated constructive criticism after each reading. Carolina Krupinska, a graphic designer, established strict quality guidelines and put many hours into photographing, image editing, and book design. I can't thank them enough. I also want to thank architect Scott Danielson for his patient and accurate translation work, Hazel Johnston for proofreading, and librarian Anna Langaard for her assistance in obtaining books from a variety of collections.

Parts of the book have been written during short visits to the beautiful Kavalla, in guest lodging provided by the Swedish Institute at Athens, and on Capri, in one of the San Michele Foundation's fantastic guest houses.

The English version of this book has been published with the support of: ARQ Foundation; FFNS-Foundation SWECO; School of Architecture, the Royal Institute of Technology (KTH); I. and A.Tengbom's Foundation.





# Contents

<b>Preface</b>	10
<b>1 Student uncertainties</b>	13
<b>2 Professional uncertainties</b>	19
The architect: a historical overview	
Practitioner or academic?	
The split between architecture and construction	
A genius, administrator, or an engineer of fortifications?	
Concerns with subjectivity	
Trying to reduce uncertainties	
<i>Humble Assertiveness</i> (an essay)	
References	
<b>3 What skills are needed?</b>	49
What skills are needed—and how can they be taught?	
Scientific factual knowledge	
Scientifically based humanistic subjects	
Theory and practice in the contemporary discourse	
Technical subjects	
<i>A Few Words About Concrete</i> (a short lecture)	
Arts, crafts and skills (practical knowledge)	
Language and drawings	
References	