

## Mapping What We Speak and See

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## Editorial Appraisals:

Some qualified reviewers offer their own brief evaluation of the book. Otherwise most of our content represents the authors'-editors' own words as a preview to their approach to the subject, their style and point-of-view. <>

**EXPANDED ANIMATION: THE ANTHOLOGY: MAPPING AN UNLIMITED LANDSCAPE** edited by Juergen Hagler, Michael Lankes, Alexander Wilhelm [Hatje Cantz, 9783775745253]

Last year, Expanded Animation (EA) celebrated its fifth anniversary as part of Ars Electronica. Since 2013, the symposium has investigated the collapsing boundaries in digital animation and explored positions and future trends in the expanded field of animation. In the last five years, the symposium has featured 56 experts from the fields of animation, art, games and science, including media artists, scholars, curators, animators, filmmakers, and media design and animation studios. Much like the first conferences on computer animation at Ars Electronica in the 1980s, practice and theory are equally important. The symposium is open to experts in theory and practice, including the Prix Forum, featuring the top prize winners in the category of Computer Animation. Heavily illustrated and featuring contributions from speakers and artist positions from the past five years, [EXPANDED ANIMATION: THE ANTHOLOGY: MAPPING AN UNLIMITED LANDSCAPE](#) presents an overview of the prize winners in Computer Animation.

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Gerfried Stocker: When the first Ars Electronica Festival for art, technology and society took place 40 years ago, the scientist and computer artist Herbert W. Franke played a leading role. He was an early pioneer of computer graphics in Europe and a visionary thinker about the profound and, as we say nowadays, disruptive changes that would come about through the spread of computers in our culture.

In his introductory text for the catalog of the first Ars Electronica Festival, he writes in depth about "visual computer art," its beginnings in the 1960s, and the first computer films by James Whitney and Jack Citron; he dedicates an interesting section to "graphic music" and makes some very informative and cutting-edge connections to kinetic art. However, in the course of many pages he uses the term "computer animation" itself only once. There he writes:

Finally, the successes achieved by the Americans in "computer animation" are astonishing. Today, programs are available that make it possible to render every conceivable object — even one that does not actually exist — as a realistic representation. All that is needed is a description of the shape, e.g. by entering spatial coordinates; then it appears on the screen, three-dimensional, with correct perspective, from any angle and in any kind of motion. There is also a choice of different surface forms, such as smooth, corrugated, or transparent; even reflections of an assumed environment and the phenomena of optical refraction are automatically calculated with transparency and represented according to the underlying form of the object. This is also a step towards perfection of the technology of illusion, with which non-existent fantasy worlds can be fabricated for the public.

In making his connections to kinetic art, the "moving works of art," he pursues an idea that was to become (although only much later) perhaps one of the most important aspects of computer art—interactivity—and expresses regret that the "viewer must be satisfied with recording the processes that are presented and has no opportunity to intervene" and continues by introducing great expectations for future computer art:

Information technology and cybernetics are creating a whole new state of affairs here: works of art can be conceived as automata that evolve their own activity or react to actions by the audience. Objects of this kind are considered "cybernetic art."

And vaguely (in accordance with the state of development in the 1970s) but convincingly, he predicts that it will be the expansion and connection of these two aspects—the completely new possibilities for visual simulation and animation and the "bidirectional communication" between work and observer—that represent the great potential for the future. How right he was. As in all other areas where digital technologies are used, the field of "visual computer art" is exploding. It has branched off in many independent and heterogeneous directions and become inextricably intertwined with music, sound and interaction. It is algorithmic, auto-generative and now learns on its own. Add to this the easy availability of inexpensive soft and hardware and a still growing number of educational institutions that are revealing multitudes of talented young people.

Today, 40 years later, we might ask how many young people even think of the good old hand-drawn animated films from Walt Disney or Hanna-Barbera Studios when they hear the word animation, with computer-generated imagery having become a ubiquitous matter of course. Meanwhile, the expected "perfection of illusion technology" has become the actual impossibility of recognizing digital simulations or manipulations with the naked eye.

From the little animations designed to help us pass the time while booting up or downloading to the gigantic technological battles of modern movies, from elaborate data visualizations, to epic computer games, to breathtaking imaging methods in medical technology, digital images are expanded, boundless, and omnipresent.

To return to the first Ars Electronica Festival, it is interesting that the passage quoted above remains the only instance of the term "computer animation," which later became so popular, in the many pages of the first Ars catalog, although the catalog contains a comprehensive discussion of the contingency of the new electronic and digital forms of imaging and image generation. The explanation may be that, as so often happens with technological developments, the time before they can be practically applied is always a phase of far-reaching visions that are then captured and narrowed by the commercial reality of consumer markets. This broad spectrum and potentiality of new possibilities must be rediscovered and redeveloped now that digital image production has been established even in the mainstream film, entertainment, and advertising industry. It is only in this expansion, which does not merely explore new possibilities but also lays claim to an elevated artistic interpretation of the possibilities of a new medium and its forms of expression, that we will find the true core of a new medium or a new form of art.

This book is therefore fully consistent with the tradition of Ars Electronica and the early thought leaders of a "computer culture."

As the result of a successful collaboration between Ars Electronica and the University of Applied Science Upper Austria, Hagenberg Campus and many international experts from the arts and sciences, the book is, to all intents and purposes, the essence of the Expanded Animation symposia that have been taking place since 2013. A series of events which, as the discursive center of the Ars Electronica Animation Festival, have made it their goal to explore the far-reaching potential of technological and artistic development of computer animation and digital film, to think ahead from the status quo and to add artistic and content-related visions to its commercial applications.

The range and expertise of the artists gathered here, along with the fascinating examples of artistic practice, represent an outstanding bridge between the power of storytelling with moving images and the still-expansive horizons of computer culture.

For the foreseeable future, we will be part of a culture completely dominated by images and visual communication. The artistic practices described in this book will be an essential foundation for the cultural inheritance and remembrance of our time.

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Animation has become a pervasive element in contemporary moving image culture' and in our daily lives, at times visibly recognizable as a simulation and at others almost indistinguishable from real-world content. Since the digital shift, the manifestations of animation have expanded and the definitions have become unstable.' Meanwhile, moving pictures created with computer technology constitute a very

diverse spectrum, particularly in hybrid forms, and are products of highly interdisciplinary collaborative activities of individuals from the worlds of industry, research, art, and science. In this unlimited domain, animation is ubiquitous and yet simultaneously undifferentiated. Any attempt to develop a concept of computer animation requires close examination of this dynamic and constantly expanding field.

Over the last 40 years, Ars Electronica has tackled this issue and discussed animation in the context of media arts. Since 2013, the University of Applied Sciences Upper Austria, Hagenberg Campus and Ars Electronica have organized the symposium "Expanded Animation," which aims to address the traversal of borders, hybrid forms, and fringe areas within the field of computer animation. Based on various approaches to that topic, this book contributes to the discussion, focusing on current positions of Expanded Animation in media arts. The book summarizes the examinations presented in the six symposium editions from 2013 to 2018, including theoretical and artist perspectives. It also features a selection of current artworks.

The first chapter reviews and discusses the six editions of the symposium Expanded Animation. This recap is preceded by an introduction to the concept of Expanded Animation and its roots in Expanded Cinema as well as the discussions on that topic at Ars Electronica. The following section provides a selection of six theoretical perspectives. In Stan VanDerBeek: From Collage Film to Cybernetic Cinema Ulrich Wegenast introduces the reader to the complex work of the American artist VanDerBeek, who developed a multitude of concepts ranging from subversive underground film, immersive dome cinemas and global networks to media performances and computer films. In Paracinema and the Dematerialization of Animation Birgitta Hosea reflects on one strand of expanded cinema—the Ili concept of paracinema coined by film theorist Jonathan Walley—by considering the expanded work of VALIE EXPORT and Anthony McCall. Juergen Hagler writes in Anomalies at the Intersection of Animation, Media Art and Technology about how to distinguish different types of animation anomalies, ranging from deconstruction, self-critical reflection, to stereoscopy, virtual reality (VR) or artificial intelligence (AI). These anomalies at the interface of animation, media art, and technology could offer novel qualities that can foster developments in science, art and economy. The aim of Franziska Bruckner's paper: Virtual Hybrid Image, Virtual Hybrid Montage: Notes on the Hybridization of Live Action and Animation within Virtual Reality Environments is to identify potentials and challenges of animated content in virtual reality environments via a method of film analysis designed for animation-film studies.

Rupturing Visions: Towards an Expanded Stereoscopy by Max Hattler investigates the potential of stereoscopic imagery to create experiences for the audience that go beyond the mere re-creation of three-dimensional space, creating visual ruptures as well as confusion in spatial perception. Radical Action and Pure Joy: David O'Reilly's Video Game Everything in the Context of Game Art, Art History, and a new Gamic Avantgarde by Stephan Schwingeler discusses O'Reilly's Everything from different perspectives and situates it in art history. The game serves as an example for a new form of radical gameplay, being one of the first games to embrace the potentialities of videogames as artistic and hybrid material. Diana Arellano describes in her article The Other Face of Animation the work that she and her colleagues have done in the field of facial character animation at the Animationsinstitut, Filmakademie Baden-Württemberg.

The next section features six artist perspectives that are traversing the borders of art, science, and play. From the perspective of a visual artist, Markos Kay explores the intersection of art and science in his work Simulating Scientific Observation in order to create public engagement with scientific theory

through a visual communication approach. Abigail Addison presents the project *Silent Signal*, six experimental animated artworks that explore novel approaches to thinking about the human body and the signals that enable the bodies to operate and to adapt in order to fight disease. The contribution *Bringing Art to Everyday: Media Art Nexus NTU Singapore in Review 2016-18*, written by Ina Conradi and Marl<sup><</sup> Chavez looks at the emergence of the Art on Campus initiative at Nanyang Technological University Singapore and at the roles of the artists who led the urban media platform, also known as the Media Art Nexus (MAN). The article *gold extra: Endeavors in Artistic Diversity* by Reinhold Bidner, Sonja Prlic and Karl Zechenter details their work in the artist group *gold extra* by describing the group's use of animation and the role it plays in a collaborative artistic process. In the contribution *Now You Touch it, Now You Don't: Experiments in Virtual Interfaces*, Anezka Sebek presents a variety of interface experiments made by her graduate students. Their experiments raise several questions, such as how an interface is felt or how people experience the stories embedded in VR. In *Images between Digital Realism and Analog Believability* Virgil Widrich addresses the combination of analog and digital film techniques, which he sees as an unexplored treasure to create entirely different images that make no pretense at realism, but become precise through their abstraction. The last section, *Expanded Animation: Selection of Ars Electronica 2011-2018* features a compilation of 41 projects that illustrate current positions. All selected projects were presented at the Ars Electronica Festival, for instance exhibited at Ars Electronica Center or at the CyberArts exhibition, screened at the Ars Electronica Animation Festival or featured at the Deep Space 8K. Of these, about two thirds were male artists, and one third consisted of female artists and groups of male and female artists. The selection also includes 7 Golden Nica winners, 7 Award of Distinction winners, and 19 Honorary Mentions. In total, 28 artists were invited as speakers at the Expanded Animation symposium. The selection comprises a wide range of experimental contributions in an interdisciplinary field at the nexus of art, industry, R&D, and science, including hybrid-blending elements of animation, computer gaming, theater and performance, projection mappings, media façades, site-specific installations, trans-media projects, interactive and reactive works, or VR experiences.

In spite of the vast spectrum, some evolving trends can be noted: first, many works follow the main idea of expanded cinema that regards moving images as an art form in the context of media art or contemporary art. Many of these are exhibits presented in galleries and museums, in site-specific installations or in performances commissioned by art festivals, concerts or public events. This is not a new trend, as these tendencies have been significantly evident in the Prix category Computer Animation in the last two decades. The first example in the presented selection is the video installation *Flux* (2011) by Candas Sisman, commissioned by Plato Art Space, given an Honorary Mention in 2011. In the following years, four installations were awarded with a Golden Nica: *Rear Window Loop* (2012) by Jeff Desom, a multichannel installation showing a found footage collage of Alfred Hitchcock's classic film *Rear Window*, *Forms* (2013) by Quayola & Memo Akten, an abstract motion sculpture, *Walking City* (2014) by Universal Everything, a museum installation that formally scrutinizes the human wall cycle, and *Idle Times / Temps Mort* (2015), by Alex Verhaest. The last-mentioned artwork consists of multiple interactive screens and can be considered a prime example for interactive artworks in the context of animation. The selection presents various forms of works on the blurring border between computer animation, playful installations, and interactive art like *Augmented Hand Series* (2015), by Golan Levin and his team, or the game *Everything* (2017) by David O'Reilly. In the realm of expanded cinema, various new presentation forms that go beyond the conventional screens, such as projection mappings, media

façades, or experimental devices like *Light Barrier 3rd Edition* (2017) by Kimchi and Chips, are among the selection.

Furthermore, there are various examples of hybrids between the analog and digital world, ranging from experimental approaches like *Rediscovery of Anima* (2018) by Akinori Goto without any digital technology, to common hybrids between traditional and digital technologies (e.g., impressively demonstrated by Boris Labbé's recent animated short movies). Beyond that, various experimental works are exhibited that utilize new digital technologies like drones, VR, AI, or realtime technologies. The selected VR works in animation show a broad range of application, from 360° videos to interactive installations, like James Paterson's animation software *Norman* (2018).

This selection explores the fringes of computer animation and of course, the question arises of whether some of these artworks can be considered part of the expanded field of animation or whether the artists themselves would place their work in that category. Many artworks defy categorization and comparison and are unique in their kind. However, as the evolution of Prix Ars Electronica illustrates, boundaries within computer animation, interactive art, sound art, and hybrid art are blurring. For instance, the oeuvre of Irish artist John Gerrard is primarily a work of contemporary art. As the artist utilizes new animation technology for his creations, like motion capture, real-time technology or simulation software, several of his installations, such as *Western Flag* (2018), are prime examples for expanded digital animation. Another vivid example is Golan Levin, who won awards in the Prix Ars Electronica category Computer Animation as well in Hybrid Art, Interactive Art and Net Vision / Net Excellence.

Many of the works presented here serve as a basis for the articles in the previous sections.

Franziska Bruckner analyzes the VR experiences *Out of Exile* (2017) and *Zero Days VR* (2017). Juergen Hagler's analysis of artistic anomalies is based on many of the presented works and further examples from Prix Ars Electronica's category Computer Animation. Max Hattler's article discusses the experimental and expanded stereoscopy found in many artworks that were exhibited at Ars Electronica (e.g., *The Chimera of M.* (2013) by Sebastian Buerkner or *Shadowland* (2014) by Kazuhiro Goshima). Markos Kay gives an insight into his artistic work and Stephan Schwingeler's article centers on the game *Everything* by David O'Reilly. The selection offered here fits in perfectly as a supplement to the theoretical and artistic perspectives. <>

**PRACTICAL MAPPING FOR APPLIED RESEARCH AND PROGRAM EVALUATION** by Bernadette Wright, Steven E. Wallis [SAGE Publications, 9781544323343]

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Overview and Map of the Book

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## Overview and Map of Practical Mapping for Applied Research and Program Evaluation

This is a book for the bold—those individuals who are not only willing but also eager to explore the farthest limits of human understanding. In writing this book, we were reminded of the excitement and danger of this adventurous field.

You can be writing on a topic (yes, this one, for example) that you know well. You may even be an expert, with your name known around the world. Then, suddenly, a colleague mentions something. A name, an article, an old idea. In a flash, you realize that the old idea might be related to the new ideas you are working on. Down the rabbit hole you go. Researching, reading, talking, studying, investigating, contemplating, synthesizing, creating, and so on.

There is a danger. Are you going in the right direction? How far should you venture forward before trying to find your way back? Many scholars have been lost this way—as if Alice were unable to escape from Wonderland.

Walking this fine line, you keep your focus—trekking through the literature, following references from one publication to another, emailing scholars around the world, asking for clarification around their ideas, and finding still more. You test your ideas by conducting research in the field, interviewing people and facilitating groups from various communities and organizations.

The number of files on your computer keeps increasing. The piles on your desk get higher. The books, articles, and interview results become an almost insurmountable mountain. Here is another danger. Do you give up? No. You synthesize those piles of evidence. You integrate the views you have collected. You reduce that incomprehensible mountain into a climbable hill.

Exhausted, you stand at the border of a new land. From the top of the hill, you gaze out over green fields of future possibilities under the blue skies of your imagination.

What will happen when people read the results of your research? What happens when they follow your lead and climb that hill? Managers, leaders, and people of every description see the benefit of your research. They understand how following your ideas will lead them to better lives.

Slowly, at first, they move forward. Then, with growing confidence in your work, they advance, working, striving, to make better lives for themselves and a better world.

In this book, you will learn how to be that explorer, how to make maps that others may follow, how to change the way people see the world so that they can change the world.

We welcome you to this exciting profession and look forward to reading about the results of your adventures in research.



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**PRACTICAL MAPPING FOR APPLIED RESEARCH AND PROGRAM EVALUATION** is designed to provide clear instructions on how to conduct effective social research. Research that may be used to evaluate and improve social programs, policies, organizations, communities, nations, and more for the general purpose of improving the human condition. By focusing on the basic methods that work best, our goal in writing this book is to help you become a better researcher.

Importantly, you will learn critical skills for creating and evaluating knowledge maps. With those abilities, you can provide more effective research results to make a greater positive impact on the world.

To help you navigate through this book, we've provided a few icons. For example, watch for the "Travel Tips" sign for helpful advice.

### Travel Tip

Travel Tips are helpful hints to support your understanding and success.

You will also find "Definition" signs to explain key ideas.

### Stop/Reflection/Discussion

The text in the "Reflection/Discussion" box will point out some interesting things to consider and some challenging questions for conversation.

At the end of each chapter, you will find some Frequently Asked Questions (FAQs) as well as a list of additional reading to support your further exploration in whatever direction you may choose.

Chapter 1 talks about some of the seemingly impossible problems people seek to solve in the world, the three dimensions of knowledge for understanding and solving those problems, and how we can better connect research and practice for the benefit of all. Importantly, the three interconnected approaches to creating, evaluating, and improving knowledge maps are data, logic, and meaning.

Chapter 2 delves deeper into the mapping process. In this chapter, you'll discover how to work with groups to create meaningful maps for practical decision-making, tracking progress, and evaluating results. You'll learn how to plan and facilitate a successful collaborative mapping process.

In Chapter 3, you'll learn how you can create a map using knowledge from existing research, such as government reports, academic papers, books, articles in trade publications, and program materials. This mapping approach can be part of a literature synthesis or literature review.

Chapter 4 is about mapping from your own research. We provide an example in which we conducted research to evaluate a program, using a mix of several methods. Next, we delve deeply into conducting interviews, organizing data across methods, and using that data to create knowledge maps.

In Chapter 5, you will learn the importance of "structure" for knowledge maps and methods for evaluating the logic structure of knowledge maps. Importantly, understanding structure provides an innovative way to improve the usefulness and impact of your knowledge.

By the time we get to Chapter 6, you will have a good understanding of how to do effective research. So here we will expand our thinking to provide a brief history of "fragmentation" (increasingly narrow focus of researchers and increasing specialization of practitioners) along with its effect on research and

practice. You will learn how to address highly complex problems by countering the effects of fragmentation by connecting with other researchers and integrating multiple knowledge maps.

Ready for action? Good. Because in Chapter 7, we will talk about using online platforms for creating knowledge maps, techniques for presenting maps to stakeholder groups, and techniques for supporting collaborative decisions and action.

For those who have developed a thirst for knowledge, Appendix A contains some advanced concepts and more directions for continuing your investigation into the field of research and knowledge mapping.

Appendix B provides a sample report—the kind you might provide to a client, other stakeholders, or your professors and fellow students.

Appendix C looks at the basics of a variety of research methods.

They say that if you know the vocabulary, you know the thing—for example, if you understood every word a lawyer might say, you would be well on your way to practicing law. Here, the Glossary contains many words you need to know.

The following figure shows a few key ideas we'll be using.

## A Few Key Ideas

Within each research project, you will have multiple stakeholder groups. For example, you might be a consultant conducting research for a client—a nonprofit organization that wants to better understand homelessness so they can improve their organization's ability to help the homeless in their community. Stakeholder groups might include staff within the nonprofit, government agencies that provide funding to the nonprofit, other nonprofits in the community such as the local food bank, and the homeless community.

Your research might consist of interviewing members of each stakeholder group. As you do that, you will learn their many perspectives on the question of homelessness. The results of those interviews will provide the propositions—the sentences—that reflect the understanding of the stakeholders. For example, one might say that mental illness is an important cause of homelessness. Another might say that homelessness is caused by poor economic conditions. Each of those statements includes concepts (homelessness, mental illness, economic conditions). The statements also show how the concepts are causally connected (when changes in one concept result in change in another concept).

As you combine those propositions, you create a knowledge map—a clear presentation of your research results. With that map, the client can better understand the problem of homelessness. They will be able to see that solving the problem of homelessness will involve improving economic conditions and addressing issues of mental health. And they can use the map to communicate their new understanding with others in the community to support collaborative efforts at resolving the situation.

Research, stakeholders, knowledge maps, concepts, and causal connections. <>

**THE HISTORIAN'S EYE: PHOTOGRAPHY, HISTORY, AND THE AMERICAN PRESENT** by Matthew Frye Jacobson  
[Documentary Arts and Culture, Published in association with the Center for Documentary Studies at Duke University, The University of North Carolina Press, 9781469649665]

### How does history look in the moment it happens?

Between 2009 and 2013, as the nation contemplated the historic election of Barack Obama and endured the effects of the Great Recession, Matthew Frye Jacobson set out with a camera to explore and document what was discernible to the "historian's eye" during this tumultuous period. Having collected several thousand images, Jacobson began to reflect on their raw, informal immediacy alongside the recognition that they comprised an archive of a moment with unquestionable historical significance. This book presents 100 images alongside Jacobson's recollections of their moments of creation and his understanding of how they link past, present, and future.

The images reveal diverse expressions of civic engagement that are emblematic of the aspirations, expectations, promises, and failures of this period in American history. Myriad closed businesses and abandoned storefronts stand as public monuments to widespread distress; omnipresent, expectant Obama iconography articulates a wish for new national narratives; flamboyant street theater and wry signage bespeak a common impulse to talk back to power. Framed by an introductory essay, these images reflect the sober grace of a time that seems perilous, but in which "hope" has not ceased to hold meaning.

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### What the Camera Teaches

American culture tends not to cultivate or place much value on serious historical reflection. Every now and then, we share a collective reverie along the lines of Errol Morris's *Fog of War* or Ava DuVernay's epic civil rights film, *Selma*; but as a nation our historical attentions more often run in the registers of *Gone with the Wind*, *Davy Crockett*, *Hogan's Heroes*, *The Godfather*, *Jersey Boys*, or *Django Unchained*—not exactly sustained reflection of the sort that enhances historical understanding or roots the present meaningfully in the soil of the past. We have developed a mild taste for history as adventure, as romance, as tragedy, as nostalgia, as escapism, as farce, even as nonsense. But history as an instrument for analyzing the contours and meaning of present conditions, not really, not even in the context of policy debates or political oratory. The culture has a woefully short memory to begin with; but as the basic unit of public discourse has contracted—first to the tiny morsel of the television sound bite, later codified by Twitter at one hundred forty characters—meaningful historical reflection has become an extravagance, and the nation goes careening ever onward.

Which is why the historian in me was so captivated during that first season of Obama, as it were, between the Democratic primaries of spring 2008 and the inauguration in early 2009. Street-level conversation quickly and pointedly fixed on "this historic event" or "this historical moment," and I heard people all around me—students, colleagues, delivery people, waitresses, barbers, garage attendants — actively placing themselves in the timelines of history in phrases like "I never thought this could happen in my lifetime," or "we're making history," marveling aloud that "this" had not seemed possible in America at all, not thirty years ago, not twenty, not one year ago.

Even the horrors of 9/11 had failed to elicit this widely shared tendency among Americans to suddenly see themselves in history. The terrorist attacks may have bifurcated history into a "before" and an "after" for many; there was a lot of talk about how "the world has been changed forever." But this was a fundamentally ahistorical conversation underneath it all, in that it rarely demonstrated a true engagement with the details, movements, trajectories, or tendencies of postwar history. In my experience (I was living in Manhattan at the time), most people commented on how the world had been "changed forever" without indicating any idea of a relevant past. For most, the event came out of nowhere. This is hardly a historian's careful formulation. Nine/eleven might prove a "cause" of whatever was to come next, but it absolutely defied definition as a "consequence" of anything that had come before, in popular understanding. The Islamophobic slogan "Everything I need to know about Islam I learned on 9/11" tacitly implied the twinned assertion "Everything I need to know about 9/11 I can locate in Islam." The thinking after that tragedy was addled, perhaps understandably so. But it represented above all a widely held and massive ahistoricism, whatever else you want to say about this dreadful collective experience.

But the Obama election was different. People I talked to now saw themselves in history; they actively took measure of the distance back to the Civil Rights and Voting Rights Acts; they paced off and re-charted the topography of the post-civil rights decades. "Underneath the river, the riverbed is moving," artist and photographer Renee Athay said. People now plumbed those rushing historical waters, trying to comprehend whatever subterranean motion it had been that delivered up a Barack Obama after decades that had seemed so stagnant on questions of race and social justice. From Nixon's "southern strategy" to Ronald Reagan's cynical visit to Philadelphia, Mississippi; to the assault on affirmative action; to the rise of the carceral state; to the Rodney King beating and other racialized police violence; to continued and worsening suppression of the black vote; to —the election of Barack Obama? The smiles and the awed clicks of the tongue, Never thought I'd see this day, represented a vernacular American meditation on the movements of history unlike any I had heard before. On another track, people in coffee shops or at the local bar were also measuring the economic crisis against the Great Depression and calling for the return of FDR.

Paula Rabinowitz has defined "the status, meaning, interpretation, and perhaps even control of history and its narratives" as what is at stake in most progressive documentary work.<sup>1</sup> The stakes in this particular project were somewhat different—to coax some workable historical thinking as a start; not so much to wrest control of a narrative, but to help in breaking silence and in generating some narratives to work with.

[\*The Historian's Eye\*](#) began with these observations on the moment, and on the keen public consciousness of the moment, and with a desire to capture it all in a bottle in a one-off documentary on the inauguration. The moment stirred in me precisely that impulse that Robert Coles has described, "to

seek to know in such a way that the telling ... connects others to an observed situation. It is the impulse to reconnoiter, to scout successfully, and to report back ... about what has been spotted or surveyed." Fieldwork began with revelry in Harlem and then Washington, D.C., on inauguration eve, and the hushed, reverential atmosphere of the National Mall as Obama took the oath of office the next morning. More "church" than "fête," the first inauguration was an intimate gathering of nearly two million jubilant but contemplative onlookers who had made the pilgrimage from across the country the day before—Martin Luther King Jr. Day, as it happened—to bear witness. The work expanded from there. As the figure of an African American president came over the horizon and assumed the Oval Office in 2009, the omnipresent Shepard Fairey iconography of "Hope" and "Change" tacitly expressed a proposition that found immediate favor in some quarters and struck deep fear in others: that maybe, just maybe, we were not the nation we had always thought ourselves to be. Historic indeed.

These years have never ceased to seem "historic," nor has the sense of their singularity yet waned. Election season in 2008 gave way to the Great Recession and its concerns, as colossal financial institutions were shaken to the core, and foreclosures, business failures, and layoffs swept the country. The political parties became locked in a death grip over budget deficits, stimulus bills, austerity measures, and health-care reforms, questions that pointed toward unbridgeable philosophical differences and to a re-litigation of governing premises stretching back through Reaganomics and the Great Society, all the way to the New Deal. Emergent, innovative forms of political organizing took shape—the Tea Party on the right and the Occupy movement on the left—as did unprecedented challenges to the president's legitimacy: communist, socialist, Kenyan foreign national, secret Muslim, illegal immigrant, Manchurian candidate, usurper. Historic battles waged in the courts and in state houses over gay marriage, voting rights, corporate power, reproductive rights, and environmental protections at once expressed and created divides in the electorate and deepened pervasive anxieties that the soul of the nation and futurity itself were hanging in the balance.

"A camera," Dorothea Lange once said, "is a tool for learning how to see without a camera." A camera can teach you to see and never to miss the ubiquitous "Space Available" signs that mark hardship and business failures in downtowns and strip malls across the country. These signs stand in for otherwise invisible stories of ruin; they are designed to attract our attention as potential buyers or tenants, but never as the citizens of our eviscerated cities and towns. A camera can teach you to see poignant details easily missed, like breakfast dishes expectantly stacked on the counter behind the "For Rent" sign of a recently closed diner, untroubled promises of "guarantee" beyond the overgrowth and chain links of a failed auto shop, competing philosophies of the public sphere embodied by an intrepid soapbox orator and the salaciously clad model pictured on a two-story jumbotron behind him, jostling to overwhelm his Times Square oratory with a sex-inflected commercial appeal of her own. A camera can teach you to read the histories of rise and fall that are narrated by our cityscapes or to identify the elements of whimsy, humor, joy, grit, determination, and anger that make up a budding social movement.

Moments frozen in photographic time expose a present that only the layers of history could have created. Images of a muscle car in an abandoned lot, a dark and vacant shopping center, or a shuttered New Jersey factory each trace the arc from twentieth-century prosperity to twenty-first-century despair. The plaintive placard at a political rally, "Do I look illegal?," protests Arizona's passage of the law that became known as SB 1070, the "papers please" law, but so does it invoke the deeper legislative history that created "illegal" persons in the first place, and the centuries-long racial history that conjoins the full rights of citizenship with how one "looks." A sardonic Florida marquee, "Be thankful we're not

getting all the government we're paying for," perches a Tea Party taxation lament atop the vintage Reagan-era contention that government is the problem, not the solution. A folk guitarist at the head of a throng of Occupy marchers conjures Phil Ochs's 1960s just as surely as he does Woody Guthrie's 1930s.

The images of [The Historian's Eye](#) provide a documentary archive of the Obama years and their extraordinary, peculiar tensions—a coin toss that has landed on edge. But they also constitute an invitation to reflect, and a prod toward a kind of visual pedagogy—a different way of seeing the past in the present and of seeing the present itself as history in the making. The question at heart of the project is: What does this historical moment look like where you live?

The images in this book were taken across the country from 2009 to 2014. Drawn from nearly 4,000 images now archived on the Historian's Eye website ([www.historianseye.org](http://www.historianseye.org)), these materials convey the harsh realities of American life during the Great Recession, but so do they capture diverse passions and expressions of civic engagement that are emblems of aspiration, expectation, and promise. Myriad closed businesses and abandoned storefronts stand as a public monument to widespread distress; omnipresent, expectant Obama iconography articulates a wish for new national narratives; flamboyant street theater and wry signage and graffiti bespeak a common impulse to talk back. Together these images reflect the sober grace of a time that is perilous, but in which "hope" has not ceased to hold meaning.

This book is meant to be read in any way you like: there is a legible narrative arc across the volume, were you to read it from front to back. But each pairing of image and text is also a freestanding piece in its own right, a meditation. The major threads that run through and unite the essays include an analysis of the American present and the past that produced it; reflections on photography as a practice in pursuit of history, and on the relationship between documentary work and scholarly work; meditations on reading images—what the photograph reveals and conceals; and finally, the story of my American Studies road trip across twenty-five states.

To begin, then, four introductory images and notes that lay out some thematic and interpretive building blocks for the interdisciplinary investigation that follows: a note on the ways of seeing that the camera teaches; a note on the nature of the American present, its raw anxiety and twinned feelings of hope and despair; a note on the interpretive method of excavating the past as it shows itself in a photograph's present; and a note on the mutual engagement here between the photographic print and the historical imagination. Photographer Joe McNally once said the best photographer isn't necessarily the one who knows the most about things like lighting and composition; the best photographer is the one who gets the shot. The most I claim as a photographer is that I was able to put myself out there—from inauguration day to the BP oil spill to Occupy Wall Street to Pamela Geller's Islamophobic rallies—to try for the shot. My hope is that this collection might advance a pedagogy of its own, deriving from my own sharp learning curve under the tutelage of the camera. <>

**WHEN AT TIMES THE MOB IS SWAYED: A CITIZEN'S GUIDE TO DEFENDING OUR REPUBLIC** by Burt Neuborne [The New Press, 978-1620973585]

## From the leading constitutional lawyer who has sued every president since LBJ, a masterful explication of the “pillars of our democracy”

On November 9, 2016, many Americans feared that our democracy was on the verge of collapse. But is it? In an erudite and brilliant evaluation of the current state of our government, noted constitutional scholar Burt Neuborne administers a stress test to democracy and concludes that our unprecedented sets of constitutional protections, all endorsed by both major parties, stand between us and an authoritarian federal regime fronted by Donald Trump’s tweets: namely the division of powers between the three branches, the rights reserved to the states, and the Bill of Rights.

Neuborne parses the genius of our constitutional system and the ways its built-in resilience will ultimately survive current attempts to dismantle it. While many important issue areas—women’s right to choose, LGBTQ rights, separation of church and state—risk erosion, Neuborne argues that while the Constitution’s inherent defense mechanisms can buy us time, only an active citizenry will allow us to fulfill Ben Franklin’s charge to keep our republic.

**WHEN AT TIMES THE MOB IS SWAYED** is an invitation from one of our most respected legal lights to identify, celebrate, and defend our bedrock constitutional principles.

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## Rethinking the Incorporation Doctrine

Finally, it may be time to rethink one of the sacred cows of progressive legal thought—an intense commitment to applying the provisions of the Bill of Rights to limit the power of the states as well as the federal government so that both operate under identical federal constitutional rules. Remember, we have two Bills of Rights. The first Bill of Rights, constituting the first ten amendments, was adopted in 1791. What is frequently called the second Bill of Rights, comprising the Thirteenth, Fourteenth, and Fifteenth Amendments, was adopted in the five years following the end of the Civil War.

The autonomy-protective aspects of the first Bill of Rights, including the rights to free speech, religious freedom, the right to bear arms, the right to be free from unreasonable searches and seizures, the privilege against self-incrimination, the right to due process of law, and freedom from cruel and unusual punishments, were initially aimed solely at the federal government. The post—Civil War equality-driven second Bill of Rights, comprising the Thirteenth Amendment's abolition of slavery and peonage, the Fourteenth Amendment's due process and equal protection clauses, and the Fifteenth Amendment's ban on racial discrimination in voting, was aimed at the states.

Until 1925, to the extent that states were bound by federal constitutional protections at all, the Republican Supreme Court usually couched the protections as "substantive due process" guarantees provided by the due process clause of the Fourteenth Amendment. History taught that "substantive due process" was hopelessly vague and subjective. Republican judges used it as a club to invalidate minimum-wage, maximum-hours, and child-labor laws. Justices Oliver Wendell Holmes Jr. and Louis Brandeis deeply mistrusted the concept of substantive due process because it licensed Republican judges to turn their absolute commitment to the free market into constitutional doctrine. During the 1920s, the two justices sought a formula that would permit vigorous protection of social and political rights but also would encourage substantial regulation of the economy in order to protect the weak. They found it in 1925 by arguing that the due process clause of the Fourteenth Amendment was not an open-ended invitation to strike down anything the justices felt was deeply unfair. Rather, it was a verbal bridge over which fundamental textual provisions of the first Bill of Rights could travel to bind both the state and federal governments with the same text.

Holmes and Brandeis began in *Gitlow v. New York* (1925) by incorporating First Amendment free speech protection into the Fourteenth Amendment's due process clause so that it would bind New York State as well as the United States—a brilliant exercise in word magic. The Supreme Court followed up over the years by marching religious freedom, protection against unreasonable searches and seizures, the right against self-incrimination, the rights to counsel and to a fair jury in a criminal case, and the ban on cruel and unusual punishments over the Fourteenth Amendment's due process bridge to bind the states.

Most recently, five Republican justices marched the Second Amendment right to bear arms across the bridge over the objection of four Democratic justices who argued that it wasn't fundamental enough to be part of due process of law. Progressive lawyers like me, seeking to limit the power of state majorities hostile to racial minorities and unfriendly to political dissenters and religious iconoclasts, have long applauded the parade of rights across the bridge—that is, until the right being incorporated into the due process clause was the Second Amendment right to bear arms. As the four Democratic justices noted in their dissent, reflex incorporation of the entire Bill of Rights into the due process clause of the Fourteenth Amendment has real federalism costs. It operates as a legal straitjacket that requires the entire nation—with all its diversity—to march to a single set of constitutional rules.

When fundamental issues such as free speech, equality, and religious freedom are at stake, I believe that the centrality of those rights to a functioning democratic society calls for uniform, robust rules throughout the United States. But many constitutional guarantees in the first Bill of Rights, including jury trials in civil cases, grand jury indictment, Fourth Amendment search and seizure rules as they govern automobile stops, and the right to bear arms, can take many forms without necessarily jeopardizing a functioning democracy. Perhaps they should not be the subject of incorporation word magic.

Respect for regional diversity may call for one set of gun ownership rules in Wyoming and Montana and another in inner-city Chicago, and one set of drunk-driving roadblock rules in New York City but another in rural Georgia. Back in the 1950s, Justice John Marshall Harlan II applauded the incorporation doctrine but argued that room for regional diversity should be built into it for certain incorporated rights. Justice Frankfurter agreed. Maybe it's time to give Harlan's views more thought.

Trump is dangerous, especially to the vulnerable. His irresponsible behavior has already launched so many dangerous spells appealing to the worst in us that we may never get the genies of racism,



xenophobia, and religious bigotry back into the bottle. There is real hope, though, that the Supreme Court can contain the worst of Trump's excesses by remaining true to both red and blue precedents embedded in the purple Constitution. But even there, the capacity for slippage and deference to authoritarian governance is ever-present, especially if Trump succeeds in repopulating the Court as the current elderly justices leave the bench.

Even if the Court's membership remains stable, for the foreseeable future we will be living under the red Constitution, where close cases will be decided in favor of autonomy at the expense of equality. If you care about what happens to folks at the bottom—as well as maintaining the current level of constitutional protection for the rest of us—your only sure path of resistance is the ballot. Let go of the belief that courts and lawyers can provide the vulnerable with bulletproof, nonpolitical legal protection. Don't give up on courts and lawyers, but, if the weak are to be protected, we'll probably have to do it ourselves through the ballot box—there is no other way.

### Night Sweats—What If It All Comes Apart?

What if I'm wrong? What if the three constitutional pillars—separation of powers, federalism, and a decent balance between autonomy and equality—don't hold? What if a steady stream of lies, half-truths, and appeals to racism, xenophobia, and fear-mongering persuade enough Americans to follow Trump over an authoritarian cliff? What if a craven Republican Senate and a Supreme Court besotted with deference cease to provide a check on Trump's worst instincts? Pick your nightmare scenario.

Here are two of mine:

Trump wins the 2020 presidential and congressional elections. Justices Ruth Bader Ginsburg and Stephen Breyer leave the Supreme Court in 2021. Trump nominates fixer-lawyer replacements in the mold of Rudy Giuliani. The Republican Senate rolls over and confirms them. Justices Thomas and Alito concur with three of Trump's nominees in deferring to the president in what they characterize as a time of national crisis. Stare decisis is trashed—or manipulated—in favor of a populist, strongman's Constitution that provides President Trump with implied emergency powers to make America great again. The forty-fifth president, invoking Abraham Lincoln, invokes martial law, suspends the writ of habeas corpus, rules by executive order, silences "fake news" outlets, preventively detains dangerous subversives, and declares an end to the era of "political correctness" by rescinding all executive regulations enforcing the Civil Rights Acts and instructing the attorney general to cease enforcing the statutes.

Worse—Trump loses the November 2020 presidential election but cries foul, claiming that the balloting was rigged by the participation of millions of fraudulent voters, many of whom are allegedly undocumented aliens or simply fictitious. Two days after the election results are announced, the president directs Attorney General Giuliani to investigate charges of widespread voter fraud. Pending the results of the investigation, Trump declares martial law; detains the apparent electoral winner, a bewildered Joe Biden; refuses to permit the Electoral College to meet; and postpones the inauguration of a new president until the will of the true electorate can be accurately determined. Pending a deferred inauguration at the close of the investigation, the president suspends the writ of habeas corpus and rules by executive order. He rounds up the usual suspects.

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What extralegal options would be open for resistance to such Trumpist putsches clothed in legalisms and backed by a Supreme Court cowed into deference? What if Trump, citing Andrew Jackson, just ignores the Supreme Court?

At this point, of course, I am far beyond my expertise, such as it is. When legal institutions run out, I have little to offer but faith.

First, there's my faith in the Second Amendment right to bear arms. Not the Second Amendment you're thinking of, populated by delusional figures who think they can defeat tyranny by playing at being Rambo. That path leads to tragedy and heartbreak. I mean the real Second Amendment; the Founders' Second Amendment, the one that empowers a well-organized citizens' militia—the entire people in arms—to resist any effort by a would-be tyrant to seize power. My first act of faith is to believe that it is within the citizens' army and the professional police forces—the modern heirs to the eighteenth-century citizens' militia—that the first line of extralegal resistance must be found. No successful tyrant oppresses alone. He needs layers of armed subordinates to impose his will by force. The seeds of an effective resistance are present in every layer. Every person in the military chain of command, including the ranking officers, has sworn an oath to support and defend the Constitution of the United States against all enemies, foreign and domestic. Somewhere in that chain of command are patriots who will place that oath above executing an unlawful presidential order.

Military law frees subordinates from any duty to carry out an unlawful order. Indeed, according to the Nuremberg principles under which the Nazis were tried, "I was just following orders" is no defense to liability for carrying out orders that are formally correct but violative of fundamental norms of human decency.

In my fifty years as a civil liberties lawyer, I never met colleagues more dedicated to the preservation of the Constitution than many of the members of the armed forces with whom I have worked, especially military lawyers. I realize that my positive experience conflicts with the beliefs of many on the left who view the military and the police as hotbeds of racism and repression. There, of course, are plenty of bullies and racists who bear arms in our name. But there are also many idealists and genuine patriots. The German officer class rolled over for Hitler. A nightmare Trump won't find it so easy to subvert the American military.

My second act of faith is in the American people. Successful tyrants need more than brute force. They need a complaisant, supportive population. Hitler, Stalin, and Mao unleashed vast terror. But not one of those pathological monsters had enough bullets to rule successfully through brute force alone. Each needed the approbation, support, and cooperation of the mass of the citizenry.

When tyrants like Hitler are ultimately overthrown, their mass support vanishes retroactively—everyone always turns out to have been in the resistance—but the mass support was undeniably there. Someone enthusiastically sold Hitler the barbed wire and poison gas he used in the death camps. Someone enthusiastically informed about a skeptical neighbor. Someone marched the intellectuals to the countryside.

There will, of course, be American quislings who will enthusiastically support an American tyrant. There always are—everywhere. But I have faith that millions and millions of Americans will defend their freedom by withholding public and private support from a tyrannical regime, by declining to do business with it voluntarily, by refusing to inform on their neighbors or co-workers, and by engaging in acts of

passive resistance such as mass strikes and protest. In the 1930s, the mass of German citizens became comfortable in their chains; many even reveled in them. That won't happen here.

Finally, my third act of faith is the most counterintuitive of all—faith that politicians will step forward to lead an effective extralegal resistance. While blue states may not be able to win a presidential election in a rigged Electoral College that over-represents rural America, or to elect a majority in the appallingly malapportioned Senate, it is in the blue cities and states where the nation's resources and talent are concentrated: money, innovation, art, information, technology, communications, research, education.

How long could red America function without the massive tax subsidy provided by their blue fellow countrymen? Blue states pay huge sums into the federal tax pot and get only a fraction back in federal programs. Where do you think the difference goes? To folks in the red states, many of whom are fond of telling other people how to live their lives but are delighted to accept federal subsidies. That's where courageous state and local political leaders could play a crucial role by turning off the blue-state tax spigots that fund a tyranny. Ordinarily, Americans pay their federal income taxes directly to the IRS. What if courageous state and local officials, driven to resistance by one of my Trump nightmare scenarios, were to take custody of all federal tax payments, agreeing to pass the funds on to the IRS after checking each return to be certain that all appropriate federal deductions have been taken? What if they were very aggressive about taking federal deductions?

(Maybe they could use Trump's tax returns as a guide.) What if courageous state and local officials were to go further and deposit federal tax payments in a secure location pending the restoration of constitutional government?

Even a Trumpist Supreme Court would be obliged to dismiss any effort to prosecute ordinary taxpayers for following state law and routing their federal tax payments through their state political leaders for recalculation and transmission to the federal government. What jury would convict them? Let the president try to jail the governors of California, New York, Illinois, Pennsylvania, Michigan, Virginia, and Massachusetts for processing federal tax payments through a state strainer.

That's only the beginning of the acts of resistance available to state and local political leaders who pledge to prevent my nightmare scenarios from unfolding. They could invoke state police power to close roads and bridges for maintenance. Shut down the airports for safety checks. Withhold police or any other assistance to the federal government.

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Don't worry, though. It won't come to that. In the short term, our institutions will hold. In the long term, we'll vote the narcissistic bully out. <>

**GHOST WORK: HOW TO STOP SILICON VALLEY FROM BUILDING A NEW GLOBAL UNDERCLASS** by Mary L. Gray and Siddharth Suri [Houghton Mifflin Harcourt, 9781328566249]

In the spirit of **NICKEL AND DIMED**, a necessary and revelatory expose of the invisible human workforce that powers the web—and that foreshadows the true future of work.

Hidden beneath the surface of the web, lost in our wrong-headed debates about AI, a new menace is looming. Anthropologist Mary L. Gray and computer scientist Siddharth Suri team up to unveil how services delivered by companies like Amazon, Google, Microsoft, and Uber can only function smoothly thanks to the judgment and experience of a vast, invisible human labor force. These people doing "ghost work" make the internet seem

smart. They perform high-tech piecework: flagging X-rated content, proofreading, designing engine parts, and much more. An estimated 8 percent of Americans have worked at least once in this “ghost economy,” and that number is growing. They usually earn less than legal minimums for traditional work, they have no health benefits, and they can be fired at any time for any reason, or none.

There are no labor laws to govern this kind of work, and these latter-day assembly lines draw in—and all too often overwork and underpay—a surprisingly diverse range of workers: harried young mothers, professionals forced into early retirement, recent grads who can’t get a toehold on the traditional employment ladder, and minorities shut out of the jobs they want. Gray and Suri also show how ghost workers, employers, and society at large can ensure that this new kind of work creates opportunity—rather than misery—for those who do it.

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## Ghosts in the Machine

The human labor powering many mobile phone apps, websites, and artificial intelligence systems can be hard to see — in fact, it's often intentionally hidden. We call this opaque world of employment ghost work.<sup>1</sup> Think about the last time you searched for something on the web. Maybe you were looking for a trending news topic, an update on your favorite team, or fresh celebrity gossip. Ever wonder why the images and links that the search engine returned didn't contain adult content or completely random results? After all, every business, illicit or legitimate, advertising online would love to have its site ranked higher in your web search. Or think about the last time you scrolled through your Facebook, Instagram, or Twitter feed. How do those sites enforce their no-graphic-violence and no-hate-speech policies? On the internet, anyone can say anything, and, given the chance, people certainly will. So how do we get such a sanitized view? The answer is people and software working together to deliver seemingly automated services to customers like you and me.

Beyond some basic decisions, today's artificial intelligence can't function without humans in the loop. Whether it's delivering a relevant newsfeed or carrying out a complicated texted-in pizza order, when the artificial intelligence (AI) trips up or can't finish the job, thousands of businesses call on people to quietly complete the project. This new digital assembly line aggregates the collective input of distributed workers, ships pieces of projects rather than products, and operates across a host of businesses that can collect projects from thousands of workers, paid by the task. Now they can depend on internet access, cloud computing, sophisticated databases, and the engineering technique of human computation — people working in concert with AIs — to loop humans into completing projects that are otherwise beyond the ability of software alone. This fusion of code and human smarts is growing fast. According to the Pew Research Center's 2016 report *Gig Work, Online Selling and Home Sharing*, roughly 20 million U.S. adults earned money completing tasks distributed on demand the previous year.<sup>1</sup> Professional, white-collar information service work, delivered through on-demand work platforms, is already projected to add \$2.7 trillion, or 2.0 percent, to global GDP by 2025.<sup>3</sup> If trends continue at the current rate, economists estimate that by the early 2030s, tech innovation could dismantle and semi-

automate roughly 38 percent of jobs in the U.S. alone.<sup>1</sup> Left unchecked, the combination of ghost work's opaque employment practices and the shibboleth of an all-powerful artificial intelligence could render the labor of hundreds of millions of people invisible.

Who does this kind of work? People like Joan and Kala.

Joan works from the Houston home she shares with her 81-year-old mother. In 2012, Joan moved in to care for her mother after a knee surgery left her mom too frail to live on her own. A year later, Joan started picking up work online through MTurk — short for "Amazon Mechanical Turk," a sprawling marketplace owned and operated by tech giant Amazon.com. Joan makes some of her best money doing "dollars for dick pics." That's how she describes labeling pictures flagged as "offensive" by social media users on platforms like Twitter and Match.com.

Companies can't automatically process every piece of content users flag for review, so some of the harder-to-evaluate materials are routed to workers like Joan. On the surface, her task seems simple: click on pictures and assess their content. Is that an X-rated penis selfie that should be removed, or some innocuous G-rated body part? She is paid for each task she completes and decides when she walks away from her computer. Joan, with years of practice, now knows how to piece together an average ten-hour day that will bring in roughly \$40 worth of such tasks.

Thousands of miles away in Bangalore, India, Kala works from her makeshift home office, tucked away in the corner of her bedroom.<sup>1</sup> Joan and Kala do similar tasks, sorting and tagging words and images for internet companies, but Kala picks up work from an outsourcing company that supplies staff to the Universal Human Relevance System (UHRS), an MTurk-like platform used internally by its builder, Microsoft. Kala, a 43-year-old housewife and mother of two with a bachelor's degree in electrical engineering, calls her two teenage sons into the room, points to a word displayed inside a large text box on her LED monitor, and asks them, "Do you know what this word means? Is it something you shouldn't say?" They giggle as she reads the text out loud to them. They make fun of her pronunciation of "chick flick." Together they decide that, no, this sentence does not contain adult content. Kala clicks "no" on the screen, and the window refreshes with a new text phrase to read to her sons. "They are more qualified to recognize these words than me," she says, laughing. "They help me keep the internet clean and safe for other families." Though she's typically unable to find enough tasks to fill more than 15 hours of work in a given week, Kala returns to UHRS almost every day to see if there are any new tasks that she feels qualified to do. Kala's doggedness and luck in the past have paid off. Now that she's learned how to browse and claim tasks quickly, Kala can make the time she has between making meals and checking her children's homework feel, as she puts it, "fruitful" as she does web research for what she considers extra income.

Content moderation — from sifting through newsfeeds and search results to adjudicating disputes over appropriate content to help technology and media companies figure out what to leave up or take down — is just one example of a new type of work that depends on people like Joan and Kala. Reviewing content is a common, often time-sensitive task generated in the wake of social media companies' attempts to identify family-friendly materials for the billions of people who use their sites every day. There are way too many webpages, photos, and tweets in every imaginable language for people like Joan and Kala to assess them all.

Companies like Google, Microsoft, Facebook, and Twitter use software to automatically remove as much "not safe for work" content as they can, wherever possible. But these software filtering systems, powered by machine learning and artificial intelligence, aren't perfect. They can't always tell the difference between a thumb and a penis, let alone hate speech and sarcasm. Remember that classic moment in the 2012 U.S. presidential campaign when Republican candidate Mitt Romney uttered the phrase "binders full of women!"? Twitter needed workers, doing the same type of work that Joan does, to figure out, in real time, why a hashtag attached to such an obtuse phrase was quickly soaring to the top of its trending topics. Was it a hack? A glitch? Bona fide, frenetic Twitter use? Current AI systems can't reliably tell the difference. On-demand work offers the promise of blending the power of computation with the creativity and dynamism of human insight.

This book is the story of Joan, Kala, and the millions of workers like them who step in when AI falls short. They are the humans behind the seemingly automated systems that we all take for granted. But modern AI systems don't just need humans to answer an unfamiliar or challenging question; they also need humans to help them learn how to answer anything in the first place. For example, do an image search for "camelback couch" and you'll get a whole bunch of pictures of couches with curved backs. Search engines like Bing and Google don't see or understand images in the way we humans do. Furniture aficionados need no more than a second to recognize a swank piece of furniture with a curved back that multiple people can sit on as a camelback couch. The AI systems behind search engines must start with at least a few hundred images of curve-backed couches, each labeled "camelback couch." Then, when the search engine encounters a new picture of a couch, it runs what is called a "classification algorithm," which essentially checks to see if the couch in this new image matches the geometrical patterns of those labeled "camelback" more than those not labeled "camelback." Now, where did the initial set of labeled images, called training data, come from? From people like Justin. With no more than a two-sentence task description as guidance, workers like Justin must claim a job within seconds or lose it to someone else willing to scoop up the job first. Justin's a stay-at-home dad with two young sons, working around his kids' preschool and nap schedules. He readily admits he had no idea what a camelback couch was at the start. "I had to spend an enormous amount of time on Google trying to look up these terms to figure out what they meant before I could answer the questions."

TripAdvisor, Match.com, Google, Twitter, Facebook, and Microsoft are some of the better-known businesses that generate an array of projects that people like Justin are paid to do, task by task, 24 hours a day, seven days a week. New companies crop up every day with business models that depend on workers around the world who respond to open calls routed through software to do this behind-the-scenes work. Businesses that can contract out their day-to-day activities to independent workers instead of regular employees can use ghost work to answer a web-based customer chat query, edit a product review, or do just about any task that doesn't require an employee's full-time, physical presence.

### How Does Ghost Work Work?

A computer program is no more than a list of instructions that tell a computer what to do. When two software programs (or a piece of software and a piece of hardware) need to communicate, they must first establish a common language. They do so via an application programming interface, or API. The API determines the common language by defining the list of instructions that a program will accept and what will happen after each instruction is executed. One could say that the API specifies the computer program's "rules of engagement." For example, there are hundreds if not thousands of different kinds of computers on the market right now, so writing a custom version of a software system for each type would be impossibly complex. But when all (or at least significant fractions) of the machines available obey the same API, programmers can write code once for all of these kinds of machines, because the API ensures that all of the machines understand the same language. These types of APIs are limited to what a computer can do, but the MTurk API enabled software developers to write programs, using only a slightly different set of instructions, that automatically pay humans to do tasks.

Normally, when a programmer wants to compute something, they interact with a CPU through an API defined by an operating system. But when a programmer uses ghost work to complete a task, they interact with a person working with them through the on-demand labor platform's API.' The programmer issues a task to a human and relies on the person's creative capacity — and availability — to answer the call. Unlike CPUs, humans have agency: they make their own decisions. While CPUs just execute whatever instruction they are given, humans make spontaneous, creative decisions and bring their own interpretations to the mix. And they have needs, motivations, and biases beyond the moment of engagement with the API. Given the same input, a CPU will always output the same thing. On the other hand, if you send a hungry human into a grocery store, he or she will walk out with a dramatically different bag of groceries than if they were not hungry. In exchange for this impetuosity and spontaneity, humans bring something to work that CPUs lack: creativity and

innovation. Joan, Kala, and Justin are members of a growing economy, hidden by APIs and fueled by ghost work.

Less than two decades ago, software developers only wrote code for computers to execute. The MTurk API, and those that followed, allowed programmers to use humans to do tasks that are beyond a computer's capacity, like accurately making a quick judgment call, as Kala and Joan do when they determine what is and isn't adult content. In fact, anyone sitting in front of a web browser could now answer an automated request for help. Businesses call this mix of APIs, rote computation, and human ingenuity "crowdsourcing," "microwork," or "crowdwork." Computer scientists call it "human computation." Any project that can be broken down into a series of discrete tasks can be solved using human computation. Software can use these APIs to manage the workflow and process the output of computers and individuals and even pay people for their contributions once they have completed the task. These people power modern AI systems, websites, and apps that we all use and take for granted.

Imagine a woman in her early twenties — let's call her Emily — standing on a curb in Chicago. Emily opens the Uber app on her smartphone and an Uber driver responds. Neither Emily nor the driver knows that their meeting hinges on another woman, two oceans away — perhaps her name is Ayesha.

Emily and her driver have no idea that Uber's software just flagged his account. The driver — let's say his name is Sam — shaved off his beard last night for his girlfriend's birthday. Now the selfie he took this morning — part of Uber's Real-Time ID Check, rolled out in 2016 to authenticate drivers — doesn't match his photo ID on record. It didn't occur to Sam that a discrepancy between the two photos — one showing him with a beard, one without — would automatically suspend his account. But suddenly, and unbeknownst to him, his livelihood hangs in the balance.

Meanwhile, overseas in Hyderabad, the Silicon Valley of India, Ayesha sits at her kitchen table, squinting at her laptop. She just accepted a job routed from Uber to CrowdFlower's software, and now she is an invisible yet integral part of the ride. CrowdFlower and its competitors with similarly hip-techy names, like CloudFactory, Playment, and Clickworker, offer their platform's software as a service to anyone who needs quick access to a ready crowd of workers. Tens of thousands of people like Ayesha log on to crowdsourcing platforms like CrowdFlower every day, looking for task-based work. Now Ayesha — and any other invisible workers who happen to have responded to CrowdFlower's request — will determine whether Sam picks up Emily.

Uber and CrowdFlower are two links in a growing supply chain of services that use APIs and human computation to put people to work. Uber uses CrowdFlower's API to pay someone to review the results of Ayesha's work, and, if it passes muster, it will process Uber's payment to her within minutes. If it doesn't meet the preprogrammed bar, Ayesha won't get paid for her efforts, nor will she have any meaningful opportunity to lodge a complaint. The API isn't designed to listen to Ayesha.

Ayesha compares the two photos of the driver side by side. A timer in the top right-hand corner of CrowdFlower's webpage winds down, prompting her to speed up. If she doesn't submit a response before the timer runs out, CrowdFlower won't process Uber's payment for the task. Ayesha blinks, glances at the timer, and squints at the thumbnail-size photos: Yes, those are the same brown eyes. The same dimpled cheeks. She clicks "okay."

Sam's account is authorized to pick up Emily just as he pulls up to the curb. Emily stops scanning the congested Chicago traffic and climbs into his car. By the time the car door closes, Ayesha has moved on to the next task. She hopes to net a few more rupees before she ends her workday.

Neither Uber's passengers nor their drivers realize that a person, working far away or perhaps just down the road, might vet their transaction in real time. Imperceptible exchanges like this one determine one out of every 100 Uber pickups in the United States, which means they happen roughly 13,000 times a day. We never saw the ghost work that Ayesha could do for CrowdFlower, but, having spent time with her and workers like her, we

can imagine the fleeting market exchanges that consumers like Emily and drivers like Sam will never see. Ayesha is the only artifact of ghost work's presence and, as such, the only one who can help us recover the experience of ghost work after Emily and Sam are long gone. Billions of people consume website content, search engine queries, tweets, posts, and mobile-app-enabled services every day. They assume that their purchases are made possible by the magic of technology alone. But, in reality, they are being served by an international staff, quietly laboring in the background. These jobs, dominated by freelance and contingent work arrangements rather than full-time or even hourly wage positions, have no established, legal status. Sometimes these jobs are given heft as harbingers of the "Second Machine Age" or the "Fourth Industrial Revolution" or part of a larger digital or platform economy. Other times, they're simply, glibly called gigs.

No employment laws capture the on-demand gig economy's odd mix of independence from any single employer and dependency on a webbased platform. As the taskmasters of the gig economy, on-demand platforms make their money by matching those buying and selling human labor online, generating a two-sided market of myriad businesses and anonymous crowds of workers. And, importantly, as media scholar and sociologist Tarleton Gillespie points out, platforms may not create the content that they host, "but they do make important choices about it." On-demand work platforms can easily become silent business partners more aligned with the interests of those willing to pay a fee to find workers than with the workers searching for jobs.

From the largest firms to the smallest startups, companies rely on this shared pool of on-demand workers amassed by on-demand platforms. They use this assembly of workers to satisfy customers who have grown to expect responses to their requests within seconds. Businesses turn to this pool, instead of traditional temporary staffing agencies, to fill last-minute gaps on their teams. They draw from it to spin up new projects, from testing a new software privacy setting to vetting descriptions of culturally attuned mac-and-cheese flavors. Such ventures are too speculative or loosely understood to justify hiring a full-time employee or the expense of recruiting, even through a temp service. No business wants to invest in launching a new service or product without gauging how consumers will respond. Service industries, driven by the ever-shifting winds of customer taste and satisfaction, can try out ideas generated by ghost work and iterate on responses from other workers, standing in for the average consumer.

### [Robots Might Be Coming, but They Aren't Here Yet](#)

Every week, another breathless headline proclaims the end of work. Soon, we are warned, the robots will rise up against us. Automation and its handmaiden, artificial intelligence, are widely understood as processes making human labor obsolete. Robotic arms can move sheets of metal across the factory floor. Software bots can take texted pizza orders. Drones can deliver packages to our doorsteps. These intelligent systems, now hitched to many traditional employment sites, are said to herald the rapid disappearance of humans in the workplace. The inevitable triumph of AI, so the story goes, will make all but the most uniquely qualified workers redundant. We all need to skill up. Now.

Tesla and SpaceX founder Elon Musk, renowned physicist Stephen Hawking, and Google co-founder Larry Page are just a few of the prominent voices in this chorus. Either they express panic about "summoning the demon" of AI or wax nostalgic about a time before AI, when humans supposedly controlled their own destiny. But arresting headlines obscure a messier reality. While it's undeniably true that robots are on the rise, most automated jobs still require humans to work around the clock, often part-time or on a contract basis, fine-tuning and caring for automated processes when the machines get stuck or break down, as technical systems, like humans, are apt to do.

It's also true that the long march toward automation has historically created new needs and different types of human labor to fill those needs. In this respect, the new, software-managed work world shares features of the factory jobs that assembled cars by placing workers on a production line where and when they were needed most. It also resembles the so-called piecework that women and children did on farms in the 19th century, assembling matchstick boxes for pennies a pop. And it overlaps in obvious ways with the outsourcing of medical



transcription and call center work to the Global South that boomed with the expansion of the internet in the late 1990s.

Factory work, piecework, and outsourcing were all precursors to tasks distributed online insofar as they involved jobs that were small, repetitive, and removed from the bigger picture. These jobs came with little stability or support. They were done, most often, by people whom economists might consider expendable or "low skill." The market calls this, unironically, "human capital." Clicking "dog" or "cat" to label an image that will eventually enable an iPhone to recognize a family pet is not that different from turning a screw on what will eventually become a Ford truck. But that's where the job similarities end.

Blue-collar manufacturing jobs have been the most visible targets of AI's advance. The Foxconn factories that make iPhones allegedly replaced 60,000 humans with robots in 2016. Amazon's 20 fulfillment centers reportedly deployed 45,000 robots to work alongside 230,000 people that same year. Yet these numbers confound how many jobs are created by automation. And the media coverage of AI's impact on full-time blue-collar work can distract us from the rapid growth of a new category of human workers to complement or tend to automated manufacturing systems when AI hits its limits.

In the past 20 years, the most profitable companies have slowly transitioned from ones that mass-manufacture durable goods, like furniture and clothing, to businesses that sell services, like healthcare, consumer analytics, and retail. There's more money to be made in selling consumers an experience, from sipping a latte to watching a bit of infotainment, than building a television set. Businesses of all types manage costs by tapping into and maintaining control of a pool of contingent workers.

Having who you want, when you want them, is now a half-century-old strategy for avoiding negotiations with full-time employees and the classification and employment laws that protect them.

This hybrid of humans and AI reconfiguring manufacturing, retail, marketing, and customer service has outstripped familiar employment categories. Unlike the repetitious lockstep of factory-controlled, fulltime manufacturing shift work, these task-based services, such as correctly amending a client's tax return or translating and captioning a video in real time, depend on endless iterations of human discernment and divination that don't fit neatly into a traditional 40-hour workweek. The tasks are dynamic, not merely mechanical, which is why it is difficult to eliminate humans from the task at hand.

AI is simply not as smart as most people hope or fear. Take, for example, the celebrated accomplishments of the AI powering AlphaGo, most recently chronicled in technologist Scott Hartley's book *The Fuzzy and the Techie*. In May 2017, AlphaGo became the first computer program to beat Ke Jie, the reigning world champion of the ancient Chinese board game go. Five months later, AlphaGo fell to its progeny, AlphaGo Zero. But, lest we be too impressed, it's important to keep in mind that the rules of go are fixed and fully formalized and it is played in a closed environment where only the two players' actions determine the outcome. AlphaGo and AlphaGo Zero's human programmers at the Google-backed company DeepMind gave the programs clear definitions of winning versus losing. Winning go is about foreseeing the long-term consequences of one's actions as one plays them out against those of an opponent. So AlphaGo was trained on billions of board positions using a large database of games between human experts, as well as games against itself, allowing it to learn what constitutes a better move or a stronger board position.<sup>1</sup> AlphaGo Zero was then steeped in all of those prior experiences by playing against AlphaGo, a mirror image of self. But, as Tom Dietterich, a noted expert in artificial intelligence research, suggests, "we must rely on humans to backfill with their broad knowledge of the world" to accomplish most day-to-day tasks. Real life is more complicated than a game of go.

The new online work platforms that channel jobs to Joan, Kala, Justin, and Ayesha upend the mediagenic stories about AI's boundless wisdom and the inexorable rise of robots. Real-world tasks, from identifying hate speech or categorizing a rental as a great springtime wedding venue to correctly amending a tax return, require human discernment. Formalizing the singular, best choice, as you might in a game of go, won't work. For

example, it would be difficult, if not impossible, to enumerate every attribute of a wedding venue that would make it the "best." Even if this were possible, people would have different preferences when it came to the attributes of the venue. Moreover, the training data to teach AI to recognize what counts as the "best choice" does not exist. In addition, an endless set of external factors, from vernacular slang and climate-change-induced hurricanes to haphazard tax reform legislation, can intrude and influence the outcome. In many cases, there are too many unknowns to train current AIs to be aware enough or gain enough experience to intelligently respond to all cases of the unexpected. This is why AI must return to humans to backfill decision-making with their broad knowledge of the world.

Anyone who scrutinizes the shadows of AI, as we have done, will find a new world of work in which software manages people doing jobs that computers can't do. As builders create systems to transfer tasks from humans to machines, they surface new problems to solve through automation. For example, it was only after the web became mainstream that companies like Facebook, Twitter, and Instagram faced growing demand to moderate their online content, outstripping the limited capacity of automated moderation tools. At the same time, as novel systems are brought online, they typically face unanticipated problems and fall short of their promise, hence the need for Kala's and Joan's work. Thanks to workers like them, automated moderation software is better, but it is far from perfect. The inevitable glitches that automated processes encounter along the way to perfection generate temporary work for people. Once they have successfully trained artificial intelligence to perform like humans, workers move on to the next tasks engineers assign them that push the boundaries of automation. Since the finish line moves as people dream of new applications for AI, we can't be sure if the "last mile" of the journey toward full automation will ever be completed. We call this the "paradox of automation's last mile."

As AI advances, it creates temporary labor markets for unforeseen and unpredictable types of tasks.<sup>1</sup> The great paradox of automation is that the desire to eliminate human labor always generates new tasks for humans. What we call "the last mile" is the gap between what a person can do and what a computer can do. Without a doubt, software developers will use ghost work to perform the tasks at hand and push AI to its limits. And it is just as likely that as more companies aspire to give us AI-enabled "smart" digital assistants to manage our calendars and book our flights, we'll need more and more people to step in when AI falls short of our increasingly exacting and extensive demands. In fact, dependency on temporary human labor has always been a part of the history of technology's long march toward automation. Today's engineers aiming to solve problems through algorithms and AI are the latest iteration of the paradox of automation's last mile. On this frontier, the peaks and valleys of temporary work shift constantly, redefining relationships between humans and machines in the process.

The rise of on-demand labor platforms signals the allure of using APIs to organize, route, and schedule work. As the examples in this book suggest, this reorientation to use contingent labor to develop new technologies fueled the recent "AI revolution." When an AI system that powers a phone app or online service isn't confident about what to do next for a customer, it needs human help, and it needs it fast. End users expect software running search engines and social media to respond in milliseconds. Traditional methods of hiring won't do here. So if an AI needs a human in the loop, to make sense of a spike in search terms tied to, say, a sudden natural disaster, it needs to get human input immediately. The disaster will fade into history. The software will have learned what it needed from the momentary flood of human input. That is exactly what an always-on labor pool, plugged into APIs, provides. Software developers can write code that automatically hires someone to solve an immediate problem, checks their work, and pays them for doing the job. Similarly, scientists and researchers using modern machine learning systems depend on training data that's clear and error-free. They need an automated method to get help generating and cleaning up that data, and they rely on many people around the world to do it. On-demand labor platforms offer today's online businesses a combination of human labor and AI, creating a massive, hidden pool of people available for ghost work. Delivering services and jobs on demand could be an integral part of the future of work. It could also have unintended, potentially disastrous consequences if not

designed and managed with care and attention to how it is restructuring the experience and meaning that people attach to their day jobs.

### Ghost Work and the Future of Employment

The dismantling of employment is a deep, fundamental transformation of the nature of work. Traditional full-time employment is no longer the rule in the United States. It used to be that a worker could spend decades showing up day after day to the same office, building a career, with the expectation of getting steady pay, healthcare, sick leave, and retirement benefits in return. Now, centuries of global reforms, from child labor laws to workplace safety guidelines, are being unraveled. In fact, according to the U.S. Department of Labor's Bureau of Labor Statistics, only 52 percent of today's employers sponsor workplace benefits of any kind. In the wake of the Great Recession, Americans have come to realize that the best alternatives to serving food, providing healthcare, or selling goods in brick-and-mortar shops are the growing number of jobs that can be found in the on-demand gig economy. Because this work doesn't fit any ready-made classification in employment law, the terms-of-service agreements for platforms like MTurk and CrowdFlower are almost indistinguishable from the boilerplate dialogue boxes that we all click to update our software, erasing the protections that traditional workers enjoy.

While the Pew Center's best estimate puts the number of individuals involved in ghost work today at around 20 million, there is no corroborating tally of how many people like Joan, Kala, Justin, and Ayesha cobble together contract-based ghost work gigs to make ends meet. When the Bureau of Labor Statistics added a supplemental survey of Contingent and Alternative Employment Arrangements to the U.S. Census Bureau's May 2017 Current Population Survey (CPS), a monthly snapshot of 60,000 eligible households that provides the nation's employment and unemployment data for the U.S. Bureau of Labor Statistics (BLS), it was the first time it had tried to gauge the growth of contingent jobs in more than a decade. According to the BLS's estimates, 10.1 percent of U.S. workers work without an explicit or implicit long-term employment contract. But this survey counts only people who hold an alternative employment arrangement as their primary or stand-alone job. So if a person does ghost work while also holding down a nine-to-five job with a single employer for a set salary or hourly wage — a very common trend among the most active workers we met — they are even harder to identify, let alone count.

The Bureau of Labor Statistics' 2017 Contingent and Alternative Employment Arrangements supplement to the Current Population Survey poses two hurdles for measuring the rise of ghost work. It is hard to really understand what "long-term employment" means to workers in a multiple-choice survey. It might be as hard to know what "primary job" means when so many people hold down multiple jobs to make their rent. The confusion over how to think about old work categories, like "longterm" or "primary job," is reflected in a head count from the Government Accountability Office that diverges with the BLS's numbers. It reported, just two years earlier, that at least 31 percent of the U.S. workforce claims that it does some form of alternative work arrangement that includes freelancing or independent contract work for hire. Labor economists Lawrence Katz and Alan Krueger estimate that temporary and alternative contract-driven work delivered through self-employed workers or those temporarily employed by staffing agencies — the so-called casualization of the workforce — rose from 10 to 16 percent, accounting for all net employment growth in the U.S. economy in the past decade. The closest we might come to understanding the size and growth of ghost work comes from independent think tanks rather than governmental data.

The most conservative estimates of on-demand gig labor markets come from the Economic Policy Institute. Economist Lawrence Mishel and his research team estimate that between 0.5 and 1 percent of working adults in the U.S., or 1.25 to 2.5 million people, participate in the on-demand gig economy. But they come to that number through a very specific study of Uber drivers and the assumption that Uber and other ride-hailing mobile apps make up the bulk of gig work. A study produced by the JPMorgan Chase Institute found that 4.3 percent of U.S. adults, or 10.73 million people, had worked an online-platform-economy job at least once between 2015 and 2016.<sup>21</sup> A revolving door of temporary tasks defines this job market. No obvious

professional title. No ladder. No bonuses. No guarantees. Tasks are finite, built to disappear once a firm has reached its specific target and the people hired to hit it have moved on to other projects.

From software engineering and legal services to commercial media and healthcare, a wide range of businesses now turn to on-demand labor platforms to convert white-collar careers into bundles of projects. Such all-digital information services and knowledge work convert the creative expertise required to think with and massage data into the consumable services delivered online by industries from tech and law to finance and entertainment. Because of these seismic shifts, the days of large enterprises with full-time employees working on-site are numbered. A crowded field of companies compete to sell information services that pair computers and smart devices with artificial intelligence. Companies like Catalant (formerly HourlyNerd), Popexpert, and Upwork use APIs to deliver the larger "macro-tasks" of knowledge work, on demand, to other businesses or individuals. The future of employment wrought by automation will undoubtedly be far more disjointed than traditional nine-to-five work. Some labor economists argue that a new reality of "fissured workplaces" is the ultimate result of turning long-term employment into a series of short-term contracts throughout the 1980s and 1990s. And yet this newly unpredictable reality hasn't dissuaded millions of digital workers around the world from sitting down at their keyboards day and night and performing the countless behind-the-scenes tasks that make our apps seem smarter than they are. This means that the future of business and employment will more likely resemble today's on-demand economy than a dystopian sci-fi film in which humans disappear and robots rule. It will require people to navigate layers of software interfaces and learn to labor in the shadow of AI. It will contain an ecosystem of independent contractors like Joan, typing away in spare bedrooms, cafés, and cinder-block homes in rural India, Knoxville, Tennessee, and Portland, Oregon — or anywhere else a person with an internet connection, a computer, ambition, or financial need can get online. When little attention is paid to the workers behind these jobs, on-demand labor can quickly become alienating, debasing, precarious, and isolating ghost work.

All of the workers we interviewed have something unexpected in common: hope. They hope to use on-demand jobs to control when they work, who they work with, and what tasks they take on. They hope to stay close to their families. They hope to avoid long commutes and hostile work environments. And they hope to gain experience that refreshes their résumé or opens a door to new possibilities. Also true is that many saw few other options for themselves or their families. Full-time employment in their towns often meant an hourly wage at a big-box store, working a fixed shift, adapting to unpredictable work schedules, and without meaningful opportunities to advance. On-demand jobs gave them real-world experiences scheduling meetings, testing and debugging websites, developing computer expertise, finding sales leads, and managing full-time employees' HR files. What worker doesn't hope to one day fully control both the schedule and the purpose of their workdays?

Ghost Work draws on a five-year study in which we — an anthropologist and a computer scientist and the research team we mustered — investigated this booming yet still largely hidden sector of the economy. It is the culmination of more than 200 interviews and tens of thousands of survey responses collected from workers across the United States and India; dozens of behavioral experiments and social network analyses of on-demand work platforms; and unique studies of this labor market's other key players, namely the people turning platforms into businesses and those hiring workers on them. It exposes a world in which steady work and salaries are being replaced by a chaotic string of small projects and micropayments, and human bosses are being replaced by automated processes that are programmed to oversee a far-flung workforce of anonymous independent contractors. Ghost Work departs from the well-known story about the rise of robots by documenting a more complicated future that is already emerging. It shows how ghost work platforms foster our belief in the magical promise of technology.

As an anthropologist, Mary had her interest sparked by the specter of an atomized world of workers earning money by sorting and annotating thousands of pictures of pointy-eared dogs, hairless cats, and "dick pics." When Mary asked those hiring workers what they knew about the people picking up their tasks, the responses

ranged from "I don't know" to "Why would I want to know that!?" As a computer scientist, Siddharth had used on-demand platforms for years to conduct online behavioral experiments, but he knew little about the workers, as the API kept them hidden from him. Who were the people offering themselves up for hire? What motivated them to do what many consider "mindless tasks," and how did they make this ill-defined form of employment pay off? What did this work mean to them? How many tasks flow online through these on-demand platforms? What are the business models that produce the demand for task-based work? What are the overall workings of this task-based economy?

When our research team started asking these questions in 2013, the only people in the conversation were economists, computer scientists, and businesspeople. All three groups evaluated the on-demand labor market on the basis of its ability to enhance efficiency and maximize a company's bottom line. When humans did happen to come up in the discussion, it was in reference to the consumer. What was the quality of the consumer's experience? The engineers and computer scientists building APIs, for companies or for their own experiments to advance AI, wanted to design systems that eliminated what they assumed were costly, superfluous operations that annoyed end users. They were in the business of building smarter, faster software that could automatically match people to services, whether it was a ride, a meal, or tax advice, with an end goal of using the data from each iteration to train future software to automate even more. Few people were tracking what this approach to productivity would mean for the people who vied to do task-based work for hire. They operated from the assumption that the workers needed to generate training data and improve software would disappear once the AI got things right. Companies were building software, after all, not temp jobs.

For the next five years, we did something our respective research fields had not: we learned about the range of ghost work and the lives of people doing it by conducting one of the most comprehensive studies of its kind. *Ghost Work* is the first book to illuminate ghost work's role in building artificial intelligence and the lives of workers who are invisible yet central to the functioning of the Internet and the future of automation. It offers an intimate, detailed look at the experience of workers in this new economy. We focus on workers living in India and the United States, the two countries with the largest on-demand labor pools, both with a long, entwined history of technological advancement. Our team interviewed and observed hundreds of people, in their homes and other makeshift workspaces, as they did everything from flag tweets to transcribe doctors' visits. We surveyed thousands more to establish a baseline to help us gauge which practices were typical and which were exceptional. We then scaled up the findings from our interview data by conducting dozens of behavioral experiments and "big data"-style analyses, each with thousands of participants. Throughout *Ghost Work*, the reader will see us toggle between these two types of analysis, combining their strengths to shed more light on those who work in the on-demand economy.

We examined four different ghost work platforms: Amazon.com's Mechanical Turk (MTurk); Microsoft's internal Universal Human Relevance System (UHRS); the socially minded startup LeadGenius; and Amara.org, a nonprofit site dedicated to translating and captioning content for transnational audiences and people with hearing disabilities. Each of these four platforms offers different products and business models. Investigating them alongside one another helped show us that our observations and conclusions hold broadly across the on-demand economy, as opposed to being specific to one category of ghost work. MTurk, as one of the first commercially available ghost work platforms, set the norms for how others would apply human computation to business solutions. UHRS stands in for the internal platforms that every large tech company maintains to meet its own ghost work demands. LeadGenius and Amara illustrate just how complex and sophisticated ghost work can be, as well as how much companies can play a role in designing better conditions for ghost work.

And then there were the workers. Among those working on these platforms, we met people stringing together on-demand projects to re-create the work hours, pay rates, and career development associated with full-time employment. We also met college-educated, stay-at-home parents staving off boredom; first-generation college students working 50 hours a week to save money for a wedding or fund a younger sibling's degree; and people, disabled or retired, looking for alternative routes to employment or extra money to pad their

social security checks. We also met engineers and entrepreneurs who founded, designed, and built ghost work platforms.

When we started, we wondered: Who are these people, and how does their work differ from traditional nine-to-five jobs? On many on-demand labor platforms, a requester like Siddharth sees no personal information about a worker — gender, location, age, and prior work experience are all unknown. And workers have no information about the requester beyond the task description. The range of tasks can be endless and can change from one day to the next. APIs can be used to have a human tag a cat photo or run a research experiment, and similar APIs can be used to hire someone to deliver a meal, send a car, or design a website. The moment that the API is called and the work is produced looks automated to both consumers and requesters. But who benefits from this veneer of automation? And who might be harmed?

By the time we finished our study, we understood that people doing ghost work were no different from our friends and family making a living through freelance writing, research, software development, or adjunct teaching. Their work lives were often vulnerable and insecure. Yet the anonymity and remote access of on-demand platforms also made it easier for those marginalized in formal employment — because of where they lived, a perceived disability, or their belonging to a stigmatized minority — to earn an income.

The more closely we looked at the nascent edges of on-demand work, the more we saw people using familiar strategies to stay afloat and create meaningful employment for themselves and their peers. Sometimes these workers succeed by collaborating with one another. They share strategies for making difficult tasks easier, they swap intel about those with tasks for sale, and they help one another stay awake as they wait for new tasks to come online. We met workers who learned to move forward after their failed forays. Who learned to thwart exploitative business models, labor laws, and APIs designed to be indifferent to their interests. And we noted that businesses have no clue how much they profit from the presence of workers' networks. This book describes the thoughtless processing of human effort through APIs as algorithmic cruelty —literally, computation incapable of thought, let alone empathy. People doing ghost work understand the perils and potential of on-demand work better than any engineer, tech company CEO, policy maker, or labor advocate. They live it every day. And they are the most invested — economically and psychologically — in making it better.

Just as we need companies to be accountable for the labor practices that produce our food, clothes, and computers, so should the producers of digital content be accountable to their consumers and workers. We should demand truth in advertising in cases where humans have been brought in to benefit us — whether it is to curate our news or field complaints about what some troll just posted to our favorite social media site.

Along with a call for transparency, Ghost Work holds lessons for tech entrepreneurs who want a productive workforce, engineers who are building the labor platforms of the future, and policy makers charged with shaping this new commercial landscape. But the still untold story of the invisible workers who power the apps on our phones and the websites we look at should interest a wide range of general readers who've seen some coverage of "gigging it" or "Turk work," not to mention "crowdsourcing" and "microwork," and heard a lot about the rise of robots but want a deeper look at how, exactly, AI reshapes the working world and what, precisely, people do in the shadow of it. We offer a textured, nuanced, and ultimately hopeful account. Among other things, we show how moving beyond the full-time-freelance divide alone could go a long way toward sharing the wealth generated by the internet with those tasked to grapple with the paradox of automation's last mile. We hope, too, that the lessons we learned from the many workers we interviewed in the U.S. and India will help the millions of people who already, or will soon, do this work make the most of it. More than anything, Ghost Work is for anyone who works and wants to see what their future holds.

### [Chapter Summary for GHOST WORK](#)

The opening chapter offers an "under-the-hood" peek at API-driven work and the industries that use ghost work to train and beef up artificial intelligence or manage larger projects contracted out to people via on-demand labor platforms. It begins by telling the story of Amazon Mechanical Turk (MTurk), the first publicly-available

platform to sell businesses and individuals access to a standing army of people signed up to do "microtasks" for pennies a task. Microtasks arose in the early 2000s. The term, arguably, no longer fits the varying size and scope of work delivered via APIs today. But, back in the early aughts, technology giants like Amazon, Microsoft, Google, and Facebook needed ways to find duplicate content, fine-tune spellcheck and develop automated systems for rooting out broken hyperlinks, reviewing flagged content, and responding to customer demands.

By design, many API-managed labor platforms assume that people are interchangeable, anonymous, autonomous agents able to seamlessly plug into any task, anytime, anywhere. This work has been designed by its creators to conceal the humans who are essential to the smooth function of the most popular websites and mobile phone apps. They are latter-day ghosts in the machine, and the machine cannot run without them. However, in practice people with constraints on their time, from childcare to other jobs or lengthy commute to comparable, fulltime service jobs do this work. We share what we learned about the lived experience of people doing ghost work in the United States and India. Some perform only a few tasks. Others stick with it for years. Everyone we met had a list of tasks that they preferred or tried to avoid. Most had learned the hard way what helps them survive the system's inherent isolation and alienation. We look at what it means to become one's own boss, though not quite independent or self-employed in ways defined by today's official laws and employment classifications. In concrete ways, the platform design sets the terms of engagement for workers. Workers, in turn, contort themselves to fit the flow of tasks. This produces a mix of "Experimentalists," creating value by refreshing the ranks and size of a platform's labor pool, picking up one or two tasks before moving on to other platforms; "Regulars" who routinely work; and an "Always-on" dedicated workers, performing 80% of the tasks.

There are historical precursors to today's ghost work. To understand the needs of those toiling in the wake of AI's advancement, we need to examine the past that frames present day sensibilities of what makes a job valuable work. It took generations of labor organizing and social norms to define and full-time employment as necessary and meaningful. Along the way, technologists and business interests, with a mix of motivations, took aim at automating as much human labor as possible. Neither those advocating for decent, fulltime work nor those building systems to obliterate it noticed that tasks that couldn't be automated or were temporarily needed to keep a system going persisted, typically as contingent, contract-based labor. Chapter 2 lays out necessary historical background that helps explain how automation's shortcomings — not its advances — have defined the meaning and value of human labor. In the late-1800s, textile mills in Lowell, Massachusetts, paid farm families to hand-fashion cloth pieces into shirt flourishes still too delicate to churn out on the factory floor. Similarly, today's companies perfecting search engine queries hire workers to test their latest ranking, relevance, and crawling algorithms. Technological advancement has always depended on expendable, temporary labor pools.

Chapter 3 focuses on algorithmic cruelty. The APIs and platforms guiding ghost work create frustration for those hiring workers, too. This system, as it currently operates, doesn't work well for anyone. But ghost work can lead to negligent — or downright bad — treatment of workers in particular. Using the notion of algorithmic cruelty, this chapter explores workers' experiences of toiling for a computational process instead of a human boss. In this chapter, we talk to fulltime employees subcontracting out work only to learn that they, too, must take on some of the costs and risks supposedly eliminated by ghost work. Then we talk to workers in the U.S. and India who lost their jobs and final paychecks with no explanation and no opportunity to appeal. Readers will learn that no laws regulate or guide ghost work. Joan's need to constantly refresh the API's search results to land new tasks; Justin's frustration sinking unpaid time into web searches so he could complete tasks to which he'd perhaps to quickly committed; the demand for Ayesha's attention to the timer counting down the Real-Time ID Check task; companies decide who gets accounts on their platforms and whether or not workers receive a final payment for tasks completed. Of course, any freelancer will tell you that getting paid is the hardest part of the job. But, according to a national survey we conducted in partnership with Pew Research, 30 percent of those doing ghost work reported not getting paid for work they performed. At least most traditional freelancers and contractors have a human contact at the company, someone to call or email if an invoice goes unpaid. They may

even have a contact who will advocate on their behalf if a payment is late. But the opaque employment terms of ghost work have made collecting one's wages even harder. These common experiences of algorithmic cruelty running roughshod through ghost work make clear why many workers feel that their site of employment doesn't care about them (at best) or is exploitative or callous (at worst).

Despite the hardships ghost work almost inevitably entails, people have a range of reasons for returning to it day after day, whether they're experimenting with ghost work, doing it routinely, or making it their source of fulltime employment. Chapter 4 explores the value that people find in ghost work beyond making money. They share their experiences learning something new about themselves, finding future work that might lead to stable employment, feeling productive, a chance to control a work schedule and the types of work that they took on. They avoided the grind of commutes and office politics that they associated with previous 9-5 jobs. They could legitimately claim to be part of "the tech world" even if they lived far from Silicon Valley. They felt more independent and accomplished because they knew their accumulated reputations were hard-won. And many felt part of a team, some for the first time in their working lives. Workers created environments that fostered respect from others, even if not from those assigning them jobs and paying them for work. They learned new skills that gave them hope that they would branch out their employment opportunities down the road.

One of the biggest surprises our research revealed was how hard workers strive to add what the on-demand economy seems bent on deleting — human connection, dignity, and meaningful work. People doing ghost work are not always the atomized, autonomous laborers they are assumed to be. Instead, they often work within a tight social network. As Chapter 5 shows, the thing that unites those most successful at ghost work — those Always on and the Regulars — is their ability to lean on one another. This kind of collaboration flies in the face of the assumptions made by designers of APIs who treat all tasks as equally doable and all humans as interchangeable cogs. Engineers assume better matching algorithms can make it easier for workers to complete tasks. Yet, companies cannot eliminate a worker's desire to invest in her job as something more than an economic transaction. The personal stories of these workers will prove that no automated system can erase the needs for connection, validation, recognition, and feedback. Social relationships remain integral to our work lives, even when we are only bound to each other through digital labor. As previous chapter details, those doing ghost work came to rely heavily on each other often because computational processes, incapable of empathy, bossed them around.

On-demand labor does not have to be atomized and alienating. Chapter 6 shares the profiles of several platforms holding themselves accountable for the jobs they create as they build out software-as-a-service. The chapter focuses on in-depth stories of two platform-driven services, the social entrepreneurial commercial start-up, LeadGenius, and Amara.org, a not-for-profit site dedicated to captioning and translating video content for many languages around the world. Both on-demand platform services aspire to meet a "double bottom line" of exceptional fiscal gains and positive social impact, offering examples of how this work need not be ghostly and could be done differently today. These two platforms have deeply invested in fostering worker interaction and task collaboration. For example, LeadGenius built a minimum wage, set hours, what they call "scaffolding" mentorship, and advancement back into employment. We've met people who have moved from hourly work to full-time employment in LeadGenius' Bay Area headquarters. Amara allows workers to choose between volunteering and doing paid work, creating a blend of people choosing, project by project, whether to share their "language pride" or earn money on the platform. LeadGenius and Amara create ways for workers to control their own destinies, offering models for how to support teams that are collaborative, cooperative units, even though they neither rely on sharing the same location or investing in the same number of hours, as traditional coops do. Amara in particular points to a possible future that puts the worker in the driver's seat, able to set her schedule, negotiate wages and profit-sharing opportunities, and make decisions about when and how to contribute her time and effort to projects that she values beyond a price tag. Helping workers connect, fostering rather than ignoring or stifling their collaboration, and rewarding them for teaching each other aren't



just the right things to do in ethical terms. They can all improve the quality of work produced via a platform, thus improving customer satisfaction and earnings.

Those doing ghost work shoulder a disproportionate share of the costs in the digital economy. The book's concluding chapter considers both technical and cultural changes that could make the difference between a world dominated by bad temp jobs and a future of valued, sustainable employment in the shadow of AI. It imagines what it looks like to come to grips with the latest iteration of the paradox of automation's last mile and account for the value of the people who fill that void. Platform-driven innovations deliver goods and services to businesses and consumers under the pretense that a magical brew of APIs and artificial intelligence have eliminated what traditional employers used to pay for, namely recruiting, training, and retaining workers. By spending time with hundreds of people doing ghost work, we saw that automation, far from eliminating those costs, shifts them to workers and employers. If the ghost economy extracts value and saves costs by eliminating the traditional stability and security attached to full-time employment, this workforce will require — and deserves — a different set of benefits and safety nets.

**FUTURE HISTORIES: WHAT ADA LOVELACE, TOM PAINE, AND THE PARIS COMMUNE CAN TEACH US ABOUT DIGITAL TECHNOLOGY** by Lizzie O'Shea [Verso, 9781788734301]

A highly engaging tour through progressive history in the service of emancipating our digital tomorrow.

When we talk about technology we always talk about tomorrow and the future -- which makes it hard to figure out how to even get there. In [Future Histories](#), public interest lawyer and digital specialist Lizzie O'Shea argues that we need to stop looking forward and start looking backwards. Weaving together histories of computing and progressive social movements with modern theories of the mind, society, and self, O'Shea constructs a "usable past" that can help us determine our digital future.

What, she asks, can the Paris Commune tell us about earlier experiments in sharing resources--like the Internet--in common? How can Frantz Fanon's theories of anti colonial self-determination help us build digital world in which everyone can participate equally? Can debates over equal digital access be helped by American revolutionary Tom Paine's theories of democratic, economic redistribution? What can indigenous land struggles teach us about stewarding our digital climate? And, how is Elon Musk not a future visionary but a steampunk throwback to Victorian-era technological utopians?

In engaging, sparkling prose, O'Shea shows us how very human our understanding of technology is, and how when we draw on the resources of the past, we can see the potential for struggle, for liberation, for art and poetry in our technological present. [Future Histories](#) is for all of us--makers, coders, hacktivists, Facebook-users, self-styled Luddites--who find ourselves in a brave new world.

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## [We Need a Usable Past for Democratic Future](#)

### [A Spanish Prince's Automaton and an American Novelist's Living History](#)

Don Carlos was seventeen years old in April 1562 when he fell down the stairs and hit his head. He was the heir to the Spanish throne, studying at the university town in Alcalá de Henares. Depending on who you ask, he was either something of a lush lothario or an inbred oddball (his parents were half-siblings). One observer noted his "violent nature, his intemperate speech and his gluttony." But the reports also indicate that he was well liked by the Spanish people, as a teenager at least. His whole life reads like the plot of a modern gothic fantasy television series: allegations of treachery, leading to solitary confinement at the hands of his father, an episode of bingeing and purging, and ultimately death, possibly by poisoning. His life was later the subject of Giuseppe Verdi's great opera Don Carlos.

But all that drama was yet to come, when, while still a young man, engaged "possibly on an illicit errand," as one scholar politely puts it, he tumbled down a disused flight of stairs and knocked himself out on a closed door.

In these early years of Don Carlos's life, relations with the paterfamilias were still good, and the king was devastated by his eldest son's misfortune. He was bedridden by his head injury. Numerous doctors flocked to his bedside, and Don Carlos was subjected to a variety of barbaric surgical procedures, including a misguided attempt to drill a hole in his skull. He eventually fell into a coma and was expected to die.

The local people were very upset by their prince 's malady. In an effort to help, they brought Don Carlos the century-old relics of a former member of the local Franciscan order of friars. Since they wanted this friar to be canonized, his body was presented to the prince in hopes of a miracle. The "desiccated corpse" was brought to the prince's bedside, where, unable to open his eyes, he reached out to touch it, then drew his hands across his feverish face.

Suddenly Don Carlos made a remarkable recovery. By the following month, he was back to his usual self. His doctors were stunned. Reflecting on the brutality of his later life, it is unclear if his survival was a blessing or a curse. In any event, the desiccated friar was made a saint.

The prince 's own explanation for his recovery was that the figure of a man, "dressed in a Franciscan habit and carrying a small wooden cross," came to his sickroom and assured him that he would recover. This, scholars suggest, was the inspiration for what must be one of the world's most fascinating objects: an early automaton of a friar.

Today the automaton is held in the Smithsonian. In a history that reads more like a detective story than an academic article, this minor miracle of engineering is described by professor Elizabeth King in the following terms:

made of wood and iron, 15 inches in height. Driven by a key-wound spring, the monk walks in a square, striking his chest with his right arm, raising and lowering a small wooden cross and rosary in his left hand, turning and nodding his head, rolling his eyes, and mouthing silent obsequies. From time to time, he brings the cross to his lips and kisses it. After over 400 years, he remains in good working order.

The workings of the friar are concealed beneath his cloak, fashioned from wood, but the inner levers and cogs are beautifully made, though they were designed to be seen by no one but the maker. This shell gives the figure an air of ghostly mystery, inspiring fear and reverence in all who witness him move about without visible assistance, as if by magic.

No one really knows where the friar came from. King's thesis is that the creator was Juanelo Turriano, an engineer who worked for King Philip. A prodigy from humble origins, he became a distinguished maker of astronomical clocks and other similar instruments, and even designed a system of waterworks for the city of Toledo. After his son's impressive recovery, Turriano could well have been commissioned to build the contraption by King Philip in honor of the Franciscan friar, who was deemed responsible for this miracle.

King ascribes the creation of the automaton friar to what she terms an "ambitious impulse," the ancient and abiding human desire to understand by imitation. She argues that it recalls Descartes's thinking about the connection between body and mind—questioning whether we are driven from without or within. "The automaton forms an important chapter in the histories of philosophy and physiology," writes King, "and, now, the modern histories of computer science and artificial intelligence."

Objects like clocks and automatons are in many ways the predecessors to modern digital technology. You needed to be both an engineer and an artist to build these kinds of machines—technology was often entertaining, inspiring, frightening and useful, all at the same time. In this sense, the path to the modern networked computer was paved with excruciating care and dedication, as well as a little whimsy. It was a journey populated by experimentation with both functional and decorative objects, and those who work with equivalent kinds of advanced technology carry on this tradition today.

Examining this mechanical friar through twenty-first-century eyes, we recognize many themes of our history and our future, our excitement and misgivings about our current relationship with technology. The friar shows how stories from our past can shape our destiny. Our past tells us about our present—how it was just one of many possible futures claimed by those who came before. In this context, both the creation and use of technology express a kind of power relation. King writes about this, in summarizing conversations about the friar with the Smithsonian conservator, W. David Todd:

Would the measure of the monk's power have come from the sight of a king setting him in motion? But Todd and I agree the power flows in the opposite direction, so that once the tiny man is seen to move independently, the operator's status takes a leap, he becomes a kind of god. Either way there is a mutual transfer of authority and magic. Todd, jesting only a little, likens the possession of the monk to owning the pentium chip a couple of years ago. Who commands the highest technology possesses the highest power.

If we accept King's hypothesis, the friar is a product of royal decree and religious fervor, serving as a tribute to divine intervention but made with a very human, highly material skill. Today the leading edges of technological development are occupied by similarly powerful individuals, who use technology to inspire loyalty and also to intimidate. The "magic" of modern technology implies that the trajectory of the digital revolution is objective and unassailable and that the people driving its development are great figures of history. Technological objects, even those that are or seem to be playful or diverting, are designed with a certain purpose in mind, and they can influence us in profound ways.

But Don Carlos's automaton also tells us something about how technology is produced in contemporary society. The friar is a piece of craftsmanship that has lasted four centuries, whereas a comparable artifact today might be built in a Chinese factory, under appalling conditions, complete with planned obsolescence. Such a contrast demonstrates how technology is a field of creativity and skill, especially in its early, innovative stages. But when

it is scaled up, it can become an industry of exploitation. The promise of technology has always relied on the meticulous efforts of people like Turriano; yet concealed in many beautiful objects that we see and handle every day is the brutal labor history of places such as Shenzhen that testifies to the power of the process of commodification. Having replaced artisanal automatons with mass-produced robots, we start to treat others and feel like robots ourselves. Our current society reveres some kinds of labor and debases others, and the power of technology to improve our world and livelihood is not equally distributed.

The past lives on in memories and stories and in the objects we use and produce. The networked computer represents an exciting opportunity to reshape the world in an image of sustainable prosperity, shared collective wealth, democratized knowledge and respectful social relations. But such a world is only possible if we actively decide to build it. Central to that task is giving ordinary people the power to control how the digital revolution unfolds.

In the huddle of people attending Don Carlos, amid all the hubbub of miracles and reverence, one doctor did claim that his recovery was due to objective factors rather than divine intervention. "The cure was of natural origins," he bravely argued, only those [cures] are properly called miracles which are beyond the power of all natural remedies ... People cured by resorting to the remedies of physicians are not said to have been cured by a miracle since the improvement in their health can be traced to those remedies.

This pert remark serves as one doctor's message to the future, to those who would come after him. Seek evidence, speak honestly, he seems to be saying, try to shine a light of truth on the events to which you bear witness with integrity. Cause and effect exist in the real world, and humans can both observe this process and sometimes influence it with their agency. Do not be distracted by religious ardor or royal conceit.

We can still see the glimmers of this light, even four centuries later. Turriano created a marvelous and beautiful object that commemorated the recovery of Don Carlos, and he contributed to our collective technological knowledge, the legacy of which lives on in computing today. But his work was made to pay tribute to divinity rather than stand as a testament to human ingenuity and science. It is not hard to imagine how the formidable skills and creativity on display might be used to tackle some of the problems faced by humanity. But only if we take the power out of the hands of kings.

This is not a book about technology per se, nor is it about history or theory. Rather, it is an attempt to read these things together in fresh and revealing ways. The purpose is not to comprehensively or categorically define the nature of the problems we face in digital society or offer prescriptive solutions; it is to suggest ideas and identify points of conflict. Not to provide definitive or exhaustive histories of certain events or schools of thought but to start a conversation about how certain histories are critical to the task of designing our future. It is written for those who may be knowledgeable about technology but lack an understanding of radical and democratic political traditions, and for those who, while familiar with such theory and practice, are wary of or inexperienced with digital technology. My aim is to find a common language for a more sophisticated discussion about the future of both topics, which must be predicated on an agreed understanding of the past. I mean to anchor the present to the past for a specific purpose: to argue that democratic control of digital technology—building structures that give people more say and control over how digital technology is produced and developed—gives us the best chance of overcoming some of the problems we face today. It is about creating a "usable past" for digital technology, a concept that has its own little history.

Van Wyck Brooks was a writer and critic when American literature came of age in the early twentieth century, a person profoundly committed to literary practice and culture. His voice "exhort[ed] writers to meet their responsibility with courage and dignity—and with pride." This led him, in 1918, to call for the creation of what he called a "usable past." Speaking to his contemporaries in an intelligent and vivid essay, he outlined the need for history that creative minds could draw upon. "The present is a void," he wrote, "and the American writer floats in that void because the past that survives in the common mind of the present is a past without living value."

It is understandable that younger generations are eager to look forward. History can weigh like a millstone; archaic distinctions and practices can drag upon our freedom and agency. But detachment from the past has its own pitfalls. It means that the past that survives is a default genealogy, a mere reflection of the status quo, fixed and irrelevant. It loses its living value, its capacity to help the current generation actively shape a collective sense of self, leaving us isolated without a common sense of purpose or a forum to discuss these ideas. "The grey conventional mind casts its shadow backward," Brooks observed. "But why should not the creative mind dispel that shadow with shafts of light?" For Brooks, the American literary history of the nineteenth century was important to document because it showcased the beauty, daring and distinction of American artists. It was a task to which he devoted years of his life, reading 825 books for his literary history *The Flowering of New England* (1936). This monumental task was part of his aspiration for "cultural centralization" to create a communal language and bring to life a common culture and identity.

### Purposes of Usable Pasts

The purpose of a usable past is not simply to be a record of history. Rather, by building a shared appreciation of moments and traditions in collective history, a usable past is a method for creating the world we want to see. It is about "cutting the cloth" of history, as Brooks put it, to suit a particular agenda. It is an argument for what the future could look like, based on what kinds of traditions are worth valuing and which moments are worth remembering.

A century later, Brooks's challenge to the American literary community retains its relevance in the age of digital technology. The digital revolution is creating experiences that are sometimes exciting, often horrifying, and routinely amazing. But present discussions about our digital future seem to float in a void. A whole set of assumptions about the past, static and dry, occupies our consciousness. It is

as though digital technology sprang from nothing, invading private spaces and public life like a juggernaut. The merit of organizing our lives around screens is rarely questioned, and we wear objects that endlessly track our movements and sometimes literally get under our skin. A commitment to meritocracy saturates public debates about technology, and freedom is understood in atomized and commodified terms. There is tacit acceptance that governments and corporations will determine the evolution of digital technology. It is also widely accepted that it is easier to imagine the end of the world than the end of capitalism—an assumption that persists even during the most transformative moments in technological development.

Digital technology is treated as a force of nature, without an agenda, inevitable and unstoppable. The past that has survived in the minds of the current generation is one that reflects what has happened rather than what is possible. Society is often treated as an object, which digital technology does things to, rather than a community of people with agency and a collective desire to shape the future. "All our invention and progress seem to result in endowing material forces with intellectual life, and in stultifying human life into a material force," declared Karl Marx. Nowhere in our current society is this observation more relevant than our personal and political engagement with digital technology.

For Brooks, the starting point was to ask: "What is important for us?" His focus was building a sense of identity among the American literary community, to find what was distinctive and valuable about the American voice. His starting point still has value. In the context of the digital age, what is important for us? What is distinctive and worthwhile about digital technology, and how can it be used to enable humanity to flourish?

Another world is possible, where society is collective and humans have agency over their digital futures. But to get there we need to create a past with living value.

In part, the motivation for this book comes from observing the ahistorical nature of discussions about technology. This has, at best, led to a benign yet thoughtless form of technological optimism. "When you give everyone a voice and give people power, the system usually ends up in a really good place," declared Mark Zuckerberg back in the early days of Facebook, with an impressive combination of naiveté and disingenuousness. At worst,

and dismayingly, this sees revolutionary moments recast as cultural shifts generated by disruptive thought leaders: history understood as the march of great entrepreneurial CEOs. This kind of thinking sees the future as defined by universal progress rather than by a messy, contradictory struggle between different interests and forces—and never driven by the aspirations of those from below. It reduces the value of human agency to entrepreneurialism and empty consumerism.

History has a role in telling us about the present but not if we use a frame that valorizes those who currently hold positions of power. We need to reclaim the present as a cause of a different future, using history as our guide.

By stitching historical ideas and moments together and applying them to contemporary problems, it is possible to create a usable past, an agenda for an alternative digital future. In times gone by, early adopters, tinkerers and utopians may have wished for—even expected—a brighter and bolder future than where we find ourselves today, and I am keen to reclaim this possibility. This book will attempt to build bridges between technologists, activists, makers, and critical thinkers, to give shape to the "us" in the question "What is important to us?"

The histories in this book are stories of action, of revolutionary thinking but also revolutionary power in practice. They are also cautionary tales and stories of defeat, from which hope can spring eternal. "Knowing that others have desired the things we desire and have encountered the same obstacles," Brooks argued, "would not the creative forces of this country lose a little of the hectic individualism that keeps them from uniting against their common enemies?" Such an aspiration might similarly be extended toward readers of this book. The point is to use history as a guide for organizing and pursuing digital democracy collectively. On this foundation, we can start to build alternative visions of politics, law and technology.

The phrase "digital revolution" captures something of the transformative nature of the time we find ourselves in, but rhetorically also conceals the commonalities we share with the past. For this reason, it warrants a little explanation. Technology is revolutionizing how we organize production, reproduction and consumption. These changes also contain revolutionary political potential—though much of this remains unrealized—or struggles to find a form under capitalism. I therefore use the term as an accurate reflection of the changes brought about through the adoption of digital technology, but also with some skepticism regarding how fully the possibilities unleashed by this development have been explored.

We live in an age steeped in pessimism, in which phenomena like climate change threaten the lives of billions, inequality grows unchecked, and right-wing populism peddles fear and bigotry. The appetite for radical social transformation to address these trends is often lacking, but with notable exceptions. Left-wing ideas are still popular, and alternatives to capitalism are beginning to look feasible, promising and necessary. Radical proposals for universal government programs and redistribution of wealth have proven attractive to many in major social democracies. Developments in digital technology afford us some glimpses of how this might come about and how human ingenuity and cooperation have the potential to overcome profound challenges.

Marx claimed that revolutions are the locomotives of history. Revolutions transform how we live and work, junking ossified practices in favor of brighter futures. They generate an energy and change that drive us forward collectively, in a world where wealth and privilege might otherwise prefer slothful stasis. Yet, in our current age of rapid technological transformation, capitalism appears to be a constant, prioritizing selfishness over the immense human cost of greed, and squandering the potential of the digital age.

Walter Benjamin offered a reversal of Marx's proposition: revolutions might be the act by which humanity on the train applies the emergency brake. We need social movements that collaborate—in workplaces, schools, community spaces and the streets—to demand that the development of technology be brought under more democratic forms of power rather than corporations or the state. As the planet slides further toward a potential future of catastrophic climate change, and as society glorifies billionaires while billions languish in poverty,

digital technology could be a tool for arresting capitalism's death drive and radically transforming the prospects of humanity. But this requires that we politically organize to demand something different.

If we are to explore the possibilities of digital technology, we need greater engagement between historians and futurists, technologists and theorists, activists and creatives. Synthesizing thinking across these fields gives us the best chance of a future that is fair. This is an ambitious project, especially at a time when the powers of capital and state are ranged against it. But as Vincent van Gogh reminded himself: "What would life be if we hadn't courage to attempt anything?" <>

**DECODING DICTATORIAL STATUES** A project by Ted Hyunhak Yoon, Together with Bernke Klein Zandvoort, Erika Doss, Fabienne Rachmadiev, Florian Göttke, Jintaeg Jang, Jo-Lene Ong, J.R. Jenkins, Karwan Fatah-Black, Leonor Faber-Jonker, Martijn Wallage, Tycho van der Hoog. [Onomatopee157, 9789491677984]

**DECODING DICTATORIAL STATUES** is a collection of images and texts revolving around the different ways statues behave in public space. How can we decode the agency of their sculptured body language and their sociopolitical role as relational objects and media icons?

Coupling a designer's perspective with an analytical approach, Ted Hyunhak Yoon explores the clichéd poses of dictatorial statues. In his image analysis, he lays out a choreography of these sculptures and uncovers the non-verbal rhetorics that shaped them. In the visual framing opened up by Hyunhak Yoon's image research, readers can zoom in and out the various narratives on offer.

In addition to these visual narratives, ten authors—acting as a group of decoders—contribute a wide range of perspectives on the subject. It's statues from different eras, located in different parts of the world, that form the starting point for these precise dissections. For instance, what links an outbreak of cultural vandalism against a 2000 year old Vietnamese devotional subject with the the toppling of Saddam Hussein's statue in 2011? Why would a recently liberated African country opt for a North Korean company to tell its history? How can we define historical value in regards to the removal of colonial monuments in South Africa, the Netherlands and the United States?

Responding to current debates on the representation of the historical canon, these experts' perspectives and Ted Hyunhak Yoon's visual framework address urgent concerns about the depiction and representation of both our heritage and our future leaders. By asking us to consider the visual language of the statue itself, this project offers a living understanding of a supposedly long-gone symbolic order and a pathway to a more cross-cultural and historic comprehension.

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Excerpt: They are only a few hours' driving distance away, but to Ted Hyunhak Yoon they could be situated in a parallel universe: the new statues that are revealed in his neighbouring country at regular intervals. Although Kim Il-sung died in 1994, he received the title of Eternal President and materialised this honour by leaving 34,000 granite and marble statues of himself—a number that continues to grow.' Once more the surrounding cloth falls away from a towering Kim Il-sung; the camera glides across thousands of grateful faces; once more the applause never seems to diminish in force. How can it be that a crowd of people who were once the neighbours of Yoon's grandparents is now revering the sculpted alter egos of their leaders? What does this crowd see that Yoon cannot perceive? What makes these statues so impenetrable?

As a graphic designer, always involved with visual communication, Yoon decided to investigate what it is that makes the visual language of these statues so powerful. In 2014 he started compiling an image archive of dictator's statues. Though the photographs stem from various regions and eras, the statues share at least one common feature: standing on their pedestal as if it were a stage, they lend visibility to the performance of communication.

The process began long before the pictures were taken. It started with a sender who decided that information must be transmitted to a large group of receivers. Instead of writing this information out in large print, or casting it in enormous letters of concrete or bronze, the information was compressed into a symbolic form: the depiction of a person. Therefore the statue could be regarded as a code, or a collection of codes:

A hand  
tucked into a pocket.

Fingers spread flat or palms facing up.

A hand  
raised forward.

The hem of a coat moving in a concrete gust of wind.

A knee  
with a book resting on it.

taking a decisive step forward.

A foot, frozen in marble,

A book tightly clenched under an arm.



The book, the hand, the coat, but also the presence of the pedestal and the visual lines that determine how the statue will nestle itself in your field of vision—all these aspects contribute to the way a message is transmitted onto the receiver. During the "reading" of a statue, the depicted figure and the meanings inscribed in it switch positions for a split second. Unaware, the receiver translates the codes.

He, the revolutionary.

He, the people's father, watching over us.

Though Yoon initially began ordering and regrouping series of images as if it were a deck of cards, he slowly shifted towards a more physical approach, towards a decomposition of the statues. Yoon's dissections attempt to identify the visual rules and phenomena that exist within—and lie underneath—these statues. His visual analysis forms the backbone of this publication. In an era electrified by debates around the relocation or removal of statues with charged biographies, Yoon's work extends beyond design and research: I consider him a silent toppler. By isolating the statues from their pedestals he illustrates how the Latin word *statua*—which literally translates as "that which is set up"—requires just a hint of poetic license to be understood as something that is in itself "a set-up".

When Yoon invited me to become the editor of this project, I wondered if wanting to prescribe a certain perspective is not the basic premise of any given statue. Were the immortalisations of Robert E. Lee in Charlottesville (US), Cecil John Rhodes in Cape Town (SA) and Jan Pieterszoon Coen in Hoorn (NL) not meant to shape our views on the depicted persons, their histories and the accompanying power structures for centuries? And what about the many statues that are not currently up for discussion and continue to stare onto the horizon, unconcerned, on squares and in parks around the globe? We crane our necks toward them, and almost without noticing it we translate a series of signs into meanings. Doesn't each and every statue, then, in some way dictate our ways of seeing?

This is where the other party in the performance of communication comes into play: the recipient. While the sender has managed to solidify an array of information and agendas into the statue, the relationship with the public is also inextricably locked into that densely compressed object. The man who reads the statue as a symbol of better days, the woman who deciphers the same statue as a dystopian sign, the cheering head in a festive crowd, the historian for whom each statue is made to be brought down: a single object can somehow accommodate all of them. In this book you will find ten essays by ten such receivers—researchers, (art) historians, curators, a philosopher and an artist. Together these authors act as decoders. Statues from different eras, located in different parts of the world, face present-day questions and form the starting point for precise and at times very personal dissections.

Historian Leonor Faber-Jonker for example, unravels the stories surrounding the site of a statue of Stalin that vanished from a Berlin Allee. With two pieces saved—his moustache and his left ear—and the rest of the sculpture having been recast, Faber Jonker wonders how much of his being is still present.

For philosopher Martijn Wallage statues are among those things, like windows and shadows, that inspire philosophical thought. His essay invites us to look below its surface and think about time and eternity, matter and form, body and soul.

The essay of curator Jo-Lene Ong revolves around the statue of a British colonial in Singapore's central business district. The work of artist Lee Wen, in which some nearby scaffolding puts the audience on an equal standing with the statue, serves as a mirror to reflect on the foundations of this celebrated icon and tourist attraction.

Following this, historian Karwan Fatah-Black questions the idea of historical value by rendering the preludes and responses to the removal of colonial monuments in South Africa, the Netherlands and United States.

In the essay of artist and researcher Florian Göttke we are guided through the cacophonous making process and subsequent crumbling of a media icon. We follow how the images of Saddam Hussein's toppled statue became a central feature in the narrative of the Iraq war; sometimes unfolding in unforeseen ways.

Art historian Erika Doss then analyses how a statue of the Trung Sisters, a 2000 year old Vietnamese devotional subject, could provoke an outbreak of cultural vandalism when it was appropriated by the ruling elite of the Republic of Vietnam.

Subsequently, design historian and graphic designer J.R. Jenkins decodes the feminine in East German public sculptures. Led by her extensive image research, she dissects the subtle and not so subtle manifestations of gender-coding in the portrayal of socialist life.

Historian Tycho van der Hoog got intrigued by the amount of socialist realist style statues he encountered when he traveled through Namibia. Why would a recently liberated African country opt for a North Korean company to tell its history?

Discussing a few contemporary artworks, curator Jintaeg Jong examines how the images of statues of dictators, once manufactured with the goal of fortifying an ideology, are now being moulded and re-moulded by artists.

The closing essay is by art historian Fabienne Rachmadiev who examines her childhood memories of a Lenin statue found in her former playground and a series of idyllic Soviet postcards. It's through this act that Rachmadiev offers us a glance at the Lenin cult found in Central Asia.

As a counterpart to Yoon's visual analysis, the essays of these ten authors offer a variety of decodings. They anatomise as it were, the object-hood of statues and their image-making qualities, their role as media icons, and their tangled position in a web of sociopolitical, historical and present-day meanings. They take the statue off its pedestal, thus letting us, the perceiver, take the stage. <>

**EFFECTIVE DATA VISUALIZATION: THE RIGHT CHART FOR THE RIGHT DATA, SECOND EDITION** by Stephanie D. H. Evergreen [SAGE Publications, 9781544350882]

Written by sought-after speaker, designer, and researcher Stephanie D. H. Evergreen, **EFFECTIVE DATA VISUALIZATION** shows readers how to create Excel charts and graphs that best communicate data findings. This comprehensive how-to guide functions as a set of blueprints—supported by research and the author's extensive experience with clients in industries all over the world—for conveying data in an impactful way. Delivered in Evergreen's humorous and approachable style, the book covers the spectrum of graph types available beyond the default options, how to determine which one most appropriately fits specific data stories, and easy steps for making the chosen graph in Excel. New to the

**Second Edition** is a completely re-written chapter on qualitative data; inclusion of 9 new quantitative graph types; new shortcuts in Excel; and entirely new chapter on Sharing Your Data with the World which includes advice on using dashboards; and lots of new examples throughout. The [Second Edition](#) is also presented in full color.

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Chapter 11. It's About More Than the Buttons

The moment you publish a book that is based on software, you accept the fact that some of the content is already obsolete and that a second edition is inevitable. This was actually a genius move on my part.

But this edition of *Effective Data Visualization* contains a lot more than updated screenshots of Excel. Hang on tight—I included nine entirely new quantitative graphs: overlapping bars (the number-one graph I recommend to the companies I consult), vertical dumbbell dot plots (my number-two most recommended graph), waffle charts, pictographs, bump charts, connected scatterplots, water-falls, tile maps, and combination charts with target lines. Oh my gosh, you are going to learn so much. Of course, the quantitative chart chooser printed on the inside front cover has been updated to reflect these additions so you have a handy reference guide.

Did you look at the inside back cover too? This edition features a qualitative chart chooser as well. In fact, the entire qualitative chapter was scrapped and overhauled. We have packed over a dozen ways to visualize qualitative data into this chapter. You are going to be introduced to compelling ways to show qualitative data that you probably haven't seen before, including journey maps, histo-maps, and spectrum displays. As with the rest of the lessons in this book, you won't need anything beyond Excel and PowerPoint to recreate these qualitative visuals. Qualitative data visualization may not be as well developed as the field of quantitative viz, but this chapter and the accompanying chart chooser are steps in that direction.

Even with all the new content to learn from, you'll want to review your favorites, because I've updated and simplified the directions, saving you valuable time you can put toward other ways you save the world. I've also packed each chapter with more support from peer-reviewed research around human perception, cognition, psychology, and data visualization so that you can have more confidence trying

out new graph types. Be sure to download the updated sample data set from this book's associated website so you can build amazing visuals right alongside me.

Oh, one more edition addition: Every image is now in full color. Color should make it approximately a million times easier to make sure your screen matches my screenshots. Easy, impactful dataviz. Does it get any better?

## Building a Culture of Effective Data Visualization

The kinds of culture change I've described in this chapter happen consistently when we visualize data effectively. And it's the data nerds who lead the way! But it isn't always easy.

Whether data visualization and good design make a difference in communicating data almost shouldn't even be a question. It has the sort of validity that hits you right between the eyeballs. Once you see what good graphic design can do to data, it can be difficult to go back to the traditional way of reporting.

Beyond how good it looks, we have strong evidence that elements like color and font impact comprehension, that the presence of graphs and photographs increases credibility and persuasiveness, and that certain graph types will be better than others at telling an accurate data story.

Despite these easily accessed credible and compelling arguments, reporting data is steeped in organizational culture. And culture can be hard to change.

I see the struggle happen frequently after people leave my workshops or read my books. This may even happen to you. You get practical, immediately implementable ideas that you can take back to your organization that will lead a data visualization revolution. But then you discover you're the only one in your office who understands how much difference it can make to your ability to communicate your data when they are presented effectively, with smart design and data visualization. And you bump up against a culture that didn't hear the compelling arguments or see the dramatic reporting makeovers that were featured in this book or in my workshops. The rest of the office will need a bit more than your eager evangelizing to join you in the data viz revolution. Many of my past clients have successfully shifted organizational culture around reporting, and I polled them' for what worked so that I could pass these strategies on to you and help you feel less alone.

## Acknowledge Fears

First of all, the rest of the office is unlikely to change until their hesitations are acknowledged. Change is hard. It means that people have to take time out of their busy lives to learn new skills. People are already overwhelmed with work, and this would be (at least initially) adding more to their schedules. Even more, some people are afraid they won't be able to learn the new skill and that they'll be left behind and seen as a less valuable employee.

Changing the look of organizational reporting seems like a very tall mountain to climb, because the before and after makeovers in this book are transformational. So people can get intimidated by what appears to also mean a very tall mountain of work. In reality, it's just the makeover that is monumental. Yes, there will be some new skills to learn and a bit more work to do at first, but the amount of time it takes is not proportionate to the size of the transformation you'll get in reporting.

We data viz leaders will have to reassure people regarding their time- and skill-related fears. The Chief Product Office at Tableau, a major data visualization software, wrote about one way to address this fear

in Forbes (Ajenstat, 2018): "To break long-held habits and encourage the use of data beyond a core group of analysts, organizations should invest in educational opportunities to help the entire workforce become more data-literate and explore ways to create a streamlined data experience for newer users." Sometimes people express this fear by being skeptical that good data visualization even has an impact, so we will have to help the skeptics, too.

## Communicate Importance

To get people on board with the revolution, you have to address their fears and hesitations by explaining why clear data visualization is important. The whole point of this chapter, and indeed this whole book, is that it is important to know which graph type is going to showcase your story the best—with the most accuracy and the most clarity. It is important to know how to create those graphs by mastering the tools you already own. This all makes us feel like rock stars.

But the real reason we devote our time and energy to the graph is because it is how people learn. It is how people come to understand information so that they can make decisions and take action. And this clear communication changes the game.

Visualizing data effectively shows that we are credible, professional, and trustworthy. It makes data-driven decision making a true reality, transforming internal culture and external industry leadership. This part of the discussion is most convincingly delivered by the CEO. Our audiences are more informed, but also they are grateful and loyal because we have given them information they need in a format that is useful. We have cooperated with how their brains work.

Beyond this nice transformation to our organizations, data represent lives. It is our job to take care with people, their lives, their data and represent them accurately and clearly so that decisions that affect them are made with as much clarity as possible. Point skeptics to the big picture.

Most employees should be convinced at least of the worth of good data visualization through this discussion of how people consume information and skeptics should be satisfied by the research that supports this discussion. Point them to the references at the end of every chapter. Indeed, sometimes it takes an outside authority, a voice from outside the company, to get some folks on board. Slide this book in their mailbox.

## Make It Easy

Once we have folks conceptually a part of the data viz revolution, we need to deliver on the promise that change won't be that hard. It helps to give them the tools that make it easy. Past clients have used our workshop or this book as a springboard to making graph template files, where others need only pop in their own data to generate a dot plot from the premade graph. Abundant examples of in-house high-impact data visualizations can also support an argument that data visualization is applicable and effective, so share your own work widely. Put this book in the office library, mount chart-chooser posters to the office walls, add great data visualizations in the office newsletter; just keep sharing examples.

In fact, some of my clients have organized regular data visualization meet-ups over lunch or happy hour where folks can bring their works in progress for feedback in a safe, growth-focused space. Others have run data viz-based book clubs to study and apply new ideas. One client organized more targeted trainings in various departments to create multiple data viz go-to gurus so employees had plenty of

colleagues to consult. Some even posted regular office hours to allow walk-in consulting. (These very smart moves should be supported by formal changes to guru schedules and responsibilities.)

Common barriers to joining the data viz revolution—lack of time, skill, and resources—are solvable problems with the easy solutions proposed in this section. <>

**THE MOUTON ATLAS OF LANGUAGES AND CULTURES: VOLUME I, EUROPE AND WEST, CENTRAL AND SOUTH ASIA** edited by Gerd Caeling De GRUYTER: MOUTON, 9783110373073

Historical linguistics is a growing field, and so is the notion of the role of cultural aspects as involved in language diversity. However, a collective work on the current stand within this field is lacking, in particular for little researched areas such as the Amazon.

Computational methods, as well as new technologies for geographic mapping and data base management have opened new possibilities for looking at history of language and culture, based on earlier theories. These methods are used as complementary to established methods, such as comparative method, areal method, and relative and absolute chronology.

The current atlas will focus on the following topics: 1. language spread and diversity in relation to ecology, subsistence, and cultural contact, 2. functionality in culture, as expressed in cultural vocabulary, 3. indications of contact by means of borrowings of cultural vocabulary and linguistic typology.

The first volume is based on a rich new data (from about 400 languages), which will be available open source via a geographic database. The volume will be of relevance for students and researchers of linguistics, cultural anthropology, human ecology, archaeology, and adjacent disciplines.

DiACL - Diachronic Atlas of Comparative Linguistics

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## Why an atlas of languages and cultures?

The Mouton Atlas of Languages and Cultures provides the reader with empirical data, maps, visualizations, and analyses, which indicate the geographic distribution, the classification, and the typological patterns of linguistic features. In this aspect, the Mouton Atlas follows in the tradition of earlier works in the genre, such as the **THE WORLD ATLAS OF LANGUAGE STRUCTURES** (Haspelmath 2005) or **THE ATLAS OF PIDGIN AND CREOLE LANGUAGE STRUCTURES** (Michaelis et al. 2013), which all use geography as an overarching principle for visualizing and examining language diversity. The fundament of resources such as these are extensive databases with linguistic data (lexical, grammatical, typological, or phonological), which provide an important basis for empirical and quantitative studies on language diversity. Similarly, extensive databases with ethnographic or other types of data, such as climate or ecology are used in addition to linguistic data to test hypotheses and causalities of language diversity and change. This research represents a new wave of a pronounced empirical research, where the fundament is constituted by an observation or characterization of features, which can be analyzed by quantitative methods. This atlas joins this research in that it primarily investigates language, more precisely morphosyntax and lexicon, by means of identified features, which are mapped in geography, analyzed phylogenetically and statistically, and contrasted to other data types, such as ethnographic data.

However, the current atlas also follows in the footsteps of a much older tradition: historical-comparative handbooks on the aspects and consequences of language reconstruction, such as **REALLEXIKON DER INDOGERMANISCHEN ALTERTUMSKUNDE** (Schrader 1923, 1929, 1917), **INDO-EUROPEAN AND THE INDO-EUROPEANS** (Gamkrelidze and Ivanov 1984, Gamkrelidze, Ivanov, and Winter 1995) or **A DICTIONARY OF SELECTED SYNONYMS IN THE PRINCIPAL INDO-EUROPEAN LANGUAGES** (Buck 1949). Like the atlases and database resources mentioned in the previous paragraph, these handbooks are based on large amounts of empirical data and observations based on many languages; however, their main objective is observation, reconstruction and description, not quantification and statistical testing. The historical-comparative method and reconstruction, interpreted in a cultural context, outdo the methodological fundament for these handbooks. In this sense, the current atlas can be viewed as a hybrid work: part atlas, part database description, part explanatory textbook, which is part comparative-historical and part statistical-evolutionary in its methodological baseline.

An important aim of the atlas is to contextualize both the empirical input data as well as the results. Therefore, the atlas does not aim at a cross-linguistic, 'universal' coverage (even within a specific area), which is an important difference to resources such as WALS. First, the atlas targets a cohesive, delimited geographic area for study. The area is partly based on the extension of one family, Indo-

European, which is treated as a whole, and includes isolates and languages of other families that are spoken close to Indo-European. Second, the atlas moves outside of expected cross-linguistic domains in the selection of features. In morphosyntax and typology, the volume includes features, which can be specific and unique to the area. In the lexicon, the volume moves outside of basic vocabulary and into culture vocabulary, which is adapted to the reality of the targeted area.

A second important aim of the atlas to investigate diachrony, which continues the tradition of comparative-historical linguistics: for all targeted features, data from ancient languages are systematically included. Ancient language data is held in high esteem within the historical-comparative tradition, which often, on the other hand, pays less attention to data from living daughter languages. The current atlas aims to include both: analysis, maps, and results are based on historical and contemporary languages alike. For the purpose of clarity, contemporary and historical data are displayed on separate maps; in analyses and statistical tests, they are treated together.

The atlas is based on two types of data: grammatical and lexical data. Accordingly, the volume is divided into two main sections, one dealing with grammar data, one dealing with lexical data. The introductory and concluding chapters aim to connect these two sections and to evaluate and explain results in a cultural context, which is an overarching theme of the volume.

All maps, visualizations, and results are based on empirical data extracted from a database DiACL - *Diachronic Atlas of Comparative Linguistics*. The database design is a fundament to the extraction of datasets and mirrors the models and methods used in the atlas; therefore, parts of the introduction of the respective grammar and lexical data sections will deal with the database organization and design as well as coding policies. Frequently, the volume contains exact references, for instance in the form of ID numbers, to the database. On the other hand, the volume offers a substantial addition to the content of the database, both in terms of explanations, interpretations, and references. The database and the printed book are symbiotic, but the information of the book is permanent and controlled, whereas large parts of the database is still impermanent and non-controlled, reflecting work in progress.

The remaining parts of the introductory chapter 1 will describe the main aim, the setting, the languages and families, and the policies for geographic reproduction and orthography in the atlas. Chapter 2 will outline the theory, model and method underlying the selection and evaluation of features. Chapter 3 will overview theories and models on language classification and change. Chapter 4 will describe the database infrastructure of *Diachronic Atlas of Comparative Linguistics*, including database structure; design, and coding policies. Chapters 5 and 6 constitute the core parts of the volume, dealing with the grammar and lexicon parts respectively. Finally, chapter 7 concludes and summarizes the results of the volume, trying to connect the grammar and lexicon sections from various perspectives. The remaining part of the volume is constituted by appendices (numbered according to chapters). These represent the different sections and include languages, language metadata, grammar features, grammar data, grammar solutions, lexical data, lexical statistics, sources for specific maps, list of language consultants, and literary data sources (language data and geographic data).

Defining our aim: observing language variation by empirical methods Languages change, consistently and inevitably. Words become lost, emerge, or change their meaning. Grammars change; categories appear, disappear, or their function changes. Syntactic patterns change - the rules and mechanisms for using grammar and words in their context become modified.

Cultural systems also change. Artifacts stop being used, new ones are invented, or the form and function of the old ones become adjusted. When cultural systems and rules change, new principles are established; and hierarchies, patterns and applications are modified. In the process of cultural adjustment and change, language changes, too. Every cultural innovation, be it a modification, a gain, or a loss, involves an adaptation of the language: the invention of a new artifact, a social rule, or a cultural habit requires a new name of it, and the process may lead to the abandonment of an obsolete artifact, social rule or cultural habit - which in turn leads to a change in the name of it. Every new generation inherits the patterns of a previous generation -not as an exact replication, rather as a 'descent with modification', through which the most adapted is continued, which, when transferred to culture, is labelled cultural evolution, and further to language as culture-language evolution.

Over time, this consistent, dynamic change leads to variation and diversity, beginning with the smallest entity of culture and language and gradually spreading over large areas. Variation is a reality, present within language families, subbranches, languages, linguistic subsystems, dialects, ethnolects, sociolects, genderlects, or familylects, as well as cultural units, ranging from villages to large areas. Diversity is another dimension of this reality, present in geography, from forest villages, valleys, islands, or plains, to over entire continents. However, even though linguistic and cultural change can be described as uncultivated garden, where each item of language and culture changes along its own paths, it is not random either. A large number of factors constrain change.

The first and most important of these constraining factors is environment. In the strict sense, the environment involves the physical surroundings of a language or a culture: climate, soil, living conditions, flora, and fauna. Languages and cultures carefully adapt to their surrounding environments, and integrate items as symbolic artifacts in their shared linguistic and cognitive systems. In the case of a relocation of a group, for instance caused by starvation or expulsion, the linguistic and cultural systems of the migratory group quickly adapt to the new environments, resulting in a change. From a larger perspective, topography and climate shape and constrain language change. Open plains and other easily navigable terrains become spread zones, where languages spread and change faster. These areas are characterized by lesser genetic density and structural diversity, and shallower (and more easily recognizable) language families. Mountainous areas, dense forests and other areas of high topographic resistance become divergent zones, where language change is more constrained. These areas are characterized by high genetic and structural diversity, and deeper (and less easily recognizable) language families.

The second factor is salience, which can most easily be described as the functionality or economy of usage of a pattern or an item. Over time, economy, functionality and frequency of usage constrain systems. Analogy, frequency and economy causes grammatical leveling; iconicity and phonemic economy harmonize sound structure. Frequency of usage of cultural patterns relate to their functionality, as does their symbolic representation in language. The affordance of artifacts affects their applicability, directing language. Therefore, a linguistic representation, like a cultural habit, may remain unchanged for long periods, provided that the linguistic or cultural functionality continues, unchanged, despite changing circumstances.

That said, systems might display striking divergences from these general preconditions. Systems may develop extraordinary, redundant, and complex patterns; which cannot be explained from any functionality or habituality perspective. Patterns of taboo and superstition, or art, decoration patterns, complex rituals, and so forth may elude any functional explanation; yet they may be repeated and

replicated, generation after generation. Redundancy in expression may stand out as unexplainable from an economy or frequency perspective, yet it may be both frequent and stable. Much of the explanation for the changing behavior lies in the causalities of change. Fundamentally, change per se is not an inherent property of either language or culture: change has a cause, a driving force, such as an adaptation to a previous or simultaneous changing circumstance.

What are these causalities of change? In particular, relocation is a fundamental cause for change. Relocation leads to changing environment, and changing environment leads to change in linguistic and cultural adaptation. Another impacting factor is contact. Whatever the nature of contact, the outcome will be a change. Contact, both linguistic and cultural, is typically characterized by geographic proximity, but it may also reach over larger areas and may be mediated by a third party. Contact may be one-sided, mutual, or multifaceted, and it may be exercised between populations, which are equal or unequal in terms of size, power, or cultural impact. Contact, in language and culture, often leads to convergence, meaning that diverging or varying patterns become more similar. A word, a grammatical pattern, a cultural practice or an artifact is transmitted from one group to the other, and the outcome is a shared pattern, linguistic or cultural.

Furthermore, every change builds upon a previous one. The snowball-like effect of continuous change, often unconscious to speakers and cultural practitioners, is known as drift; a change which often happens in parallel between related, but diverged systems, sharing a habitat but not necessarily in frequent contact with each other. Parallel drift is a vigorous factor in the shaping of linguistic and cultural patterns: this process embodies cultural and linguistic, as well as environmental adaptation, just as much as it encapsulates previous change.

Use of extensive, empirical data, hypothesis testing and the use of statistical models are fundamental aspects of cultural and linguistic evolutionary research. On the other hand, evolutionary approaches to language and culture, being basically humanistic disciplines, do not require statistical models, and a large body of scientific production within the area does not apply mathematical models at all. A prerequisite for applying quantitative models is, besides hypothesis formulation, data quantification. The approach of this volume is leaning towards a quantitative model of cultural and linguistic evolutionary research. However, reducing the dynamic complexity of language and cultural structure into numbers is not a trivial task. The current volume will aim towards facing this dilemma. This means, the book discusses theories, problems, methods, and models that involve the process of transforming complex relations of language and culture into quantitative units, i.e., features, characters, traits, which may be used as a basis for formulating and testing hypotheses by statistical models. The data amassed in the project is statistically analyzed to summarize, cluster, identify patterns in the data, in particular to enable geographic mapping. All data, and its coding, is given in the appendices of this book. The data is also available for downloading of quantitative sets in the database DiACL - Diachronic Atlas of Comparative Linguistics, which is the basis for the current volume.

### The setting: Eurasia from the Neolithic revolution to the Industrial Age

The current atlas aims at capturing the dynamic diversity of a changing linguistic landscape stretching from the British Isles and continuing over Eurasia to Southeast Asia. The period we are dealing with in principle begins with a significant and revolutionary change, the Neolithic agricultural revolution, 11-10,000 BP, and stops before the Colonial Era and the Industrial Revolution in the last centuries - another significant and groundbreaking change, for which we cannot predict future impact on languages and

cultures. This policy has several implications. First, we include as much language material as possible from ancient sources to contemporary states of languages, but our target is set to the languages and cultural systems of pre-industrial and pre-colonial societies, which means, for instance, that we do not include concepts and cultural properties which we classify as 'modern world' (cf. Buck 1949, Tadmor and Haspelmath 2010). In addition, our geographic location of languages does not include their post-colonial extension, meaning that, e.g., English is spoken only on the British Isles, Portuguese and Spanish only on the Iberian Peninsula, and French only in France. Given our policy to render modern languages as polygons, we are aware that this is not a trivial task. Our contemporary-based polygons, of, e.g., Armenian, Kabardian, Russian, Kurdish, or other languages whose extension has changed several times in the past hundred years, are not representative of a pre-colonial extension in the manner that, e.g., English is. With this caveat in mind, we believe that polygons are still much more representative for mapping than focal points.

The area spans over several climate zones, several language families, and a wide range of diverging cultural areas. Following the geographical classification by D-PLACE, our atlas encompasses the areas (from Northwest to Southeast) Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, Eastern Europe, Caucasus, Western Asia, Middle Asia, and the Indian subcontinent.

In terms of climate zones, our area encompasses a substantial variation in the climate, ranging from the boreal, fully humid and cool summer areas of the northern parts of Northern Europe and Eastern Europe; boreal, fully humid, and warm summer areas of Eastern Europe; warm temperate, fully humid, and warm summer areas of Northern and Middle Europe; warm temperate, dry and warm summer areas of Southwestern and Southeastern Europe (in our descriptions normally referred to as Mediterranean) and substantial parts of western Western Asia; arid, dry winter, hot areas of eastern Western Asia; and equatorial, dry winter and equatorial, monsoonal areas of Indian Subcontinent.

### Languages, language families and cultural groups in our data

Language is a fundamental common denominator in this atlas, and language is used as basic classification basis for all data. This is not new: besides geography, language is typically used as a metric to classify cultural groups. Our aim of data compilation has been to cover — for our selected setup of features and concepts — all living and known extinct languages in our targeted area. In this aim, we have almost been successful; however, there are lacunae in the corpus: either entire languages missing or specific data types (typology, basic vocabulary, and cultural vocabulary) are missing for certain languages. These lacunae have various causes, either shortage of time, shortage of subsidy, or unavailability of expertise. In particular, ancient languages may potentially contain missing data: the sources are given beforehand and cannot be completed by information retrieved from native speakers. We have tried to deal with this in a manner that modern and ancient languages can be compared on equal terms to contemporary ones (chapter 4). In our current overview, we will include languages with data of any type, for the various types, i.e., grammar, basic vocabulary, and culture vocabulary; we refer to the respective sections of the atlas (chapters 5 and 6).

A complete list of languages and their classification is given in appendix I, along with language metadata. Location by family and branch (for Indo-European) is shown in maps 2a (contemporary), 2b (historical) and 2c (Romani chib). Even though our atlas incorporates — as far as possible — small and minority languages of various regions, it is obvious that linguistic diversity is unevenly spread over the geographic landscape. The correlation between geography and linguistic diversity, also at the level of grammar, is

evident from the map distribution. In general, regions with high-resistance topography (high mountains, dense forests), become areas where language diversity is higher, indigenous languages have an immeasurable long local history, and languages are typically not spread beyond the specific area by linguistic affinity. In our atlas, this definition targets, e.g., the Caucasian mountains and the Basque country. These regions are traditionally labelled as residual or accretion zones. The other type is labelled spread zones. These areas are generally larger, they are characterized by low-resistance topography (open plains, tundra, and farmland), linguistic diversity is lower, languages do not necessarily have an very long local history, and in general individual languages, as well as branches and families, occupy larger territories. We will look more carefully at these classifications in this volume.

Moving over to cultures — what metrics do we use to classify them? This is an old dilemma. In empirical, large-scale ethnographic studies, language is often used as a basis for identifying cultures, for which cultural patterns are then identified by various metrics, such as subsistence mode, kinship, or marriage rules. However, as we move into prehistory, the identifier language becomes more and more uncertain, even though in scientific literature within disciplines dealing with prehistory, language or the concept of language families are often transferred to describe observed patterns, such as in pottery. Cultural or ethnographic identification is a complex issue, and implies a substantial amount of often contradictory parameters, which make identification complex. Just as with language, location in space and time are decisive in cultural and ethnographic identification and classification, also targeting archaeological cultures. Besides linguistic affinity, other classificatory parameters (include ethnonyms, both alternative names bestowed by selves as well as names by others, meaning of ethnonyms, cultural affiliations with other cultures or culture areas, as well as affiliations to prehistory.

Ethnographic data is constituted by descriptions and identifications of various cultural patterns. Besides spatial and temporal definition, as described in previous paragraph, two classificatory parameters are considered to be of primary value: kinship and subsistence.

In classifications, such as the subject-indexing system used by HRAF, Outline of Cultural Materials (OCM), subjects are classified and enumerated by main cultural categories which are classified by more and more fine-grained categories, such as 'Food quest', 'Animal husbandry', or 'Clothing', which in turn are classified into 'Food quest: Hunting and Trapping', or 'Hunting and Trapping' which may be described as 'Animals sought; hunting methods and techniques (e.g., stalking, collective drive); description and use of traps and snares; use of domestic animals (e.g., dogs, ferrets); special elaborations (e.g., trapping for the fur trade); hunting trips; economic importance of hunting; organization of labor and division of catch; associated beliefs and practices; hunting for sport; regulation (e.g., game laws, open seasons); etc.', and so forth. Just as with language, ethnographic classification is about making generalizations of observed patterns, label them, classify them, and organize them hierarchically.

In quantifications of ethnographic data, a classification system is decisive. An important fundament to ethnographic empirical data is D-PLACE, which is a database of geographic data (location), linguistic (language classification), cultural and environmental data (as identified hierarchical features), organized as downloadable datasets. D-PLACE and another similar resource, HRAF (The Human Relations Area Files) (<http://ehrafworldcultures.yale.edu>), are both based on a classification system of cultures and cultural features which was established by George P Murdock and his team in the 20th cent., which has been expanded by the language classification system of Glottolog. The classification system of Murdock has served as a fundament to our classifications and labeling of categories.

The database DiACL is based on language as a fundamental unit of classification. The database contains only linguistic data, but, by the systematic and large-scale compilation, organization, and classification of culture vocabulary data, our database targets cultural classification, which is an overarching theme in this volume. In classifying and standardizing the cultural vocabularies, the OCM standard has been an important metric, and the cultural descriptions, contemporary as well as past, have served as a guideline for identifying and establishing the list of cultural concepts that we use in our culture word lists.

### Purpose an integrated view of the linguistic and cultural histories of Eurasia

The main aim of this atlas is to investigate the different processes that create divergence, as well as to study how divergence expands in time and space. A further aim is to identify and explain the mechanisms that trigger or alternatively constrain change, as well as the processes that conflate them; something we search for both inside languages as well as in their environment. Besides, we are interested in the linguistic and cultural histories of the past, involving the reconstruction of the realia of ancient proto-languages.

Due to the inevitability of change, time produces diversity. Change is not constant; rather, properties' inherent role and their function in language and society may affect their rates of change. Some features have a higher stability, indicating that they are typically transferred, from one generation to the next, by lineage. Other features are more prone to change, by gain, loss, or substitution; but tendency to drift of these features runs a permanent risk of levelling or conflation due to the operation of convergence or advergence. Further, environmental conditions, cultural change and relocation may affect the rate of change at all levels. Is it possible to identify these causalities of change rates in language?

The model identifies two basic types of languages, spread zone and residual or accretion zone languages. Even though these classifications may be oversimplified and not applicable from a global perspective they have some bearing on the Eurasian context, where they can be immediately connected to the geographic environment: the high-resistant topography of Caucasus and the Basque country are likely underlying the specific characteristics of these families. But as we have seen in the grammar section (5.8), the development of grammar in relation to geographic zones is quite complex, with conservation zones, hybrid zones and development zones overlapping each other.

In our evaluation of data, both grammatical and lexical, we will instead use the basic notion of migratory and non-migratory language types. In principle, migratory languages are more involved in drift, at all levels, with various consequences for the grammar and the lexicon. Nonmigratory languages are less drift, but the the slow rate of drift in combination with non-migration may result in a large and accumulated diversity, which corresponds to Nichol's accretion zones.

Our data includes Indo-European, Turkic, and Uralic on the one hand, which are migratory languages; we know that these families have relocated several times during prehistory. Basque and Caucasian are non-migratory languages — there are no reliable evidence for any prehistoric relocation or migration of the speakers of these languages. The most visible difference between the two types is found in linguistic density and geospatial extension of the families themselves.

If we look at the geographic distribution of data, we notice that vocabulary follows language family boundaries more strictly, whereas grammar shows higher degrees of convergence behavior. Nevertheless, there are important exceptions.

In our grammar data, we may identify different types of properties. First, we have morphosyntactic properties of nouns and verbs, such as tense morphology, gender, definiteness, and case, which are directly bound by matter, i.e., phonological forms of morphemes, as well as by paradigmaticity. These stick more closely to families, areas and branch boundaries — they principally following lineage, are less areal, and in geography, they come out as more divergent. The other group, which is also bound by matter and paradigmaticity, including alignment, and agreement, is much less divergent than the beforementioned group. Finally, we have patterns, i.e., syntactic properties, which are involved in functional interactions but not bound by matter or paradigmaticity, mainly word order, which are convergent or advergent, display higher areality, and come out as conflated in geography. Even inside these domains, there are discrepancies: higher frequency and economy implies higher instability and lower divergence, lower frequency implies lower instability and higher divergence. The outcome of these processes are large discrepancies in the geographic extension of various domains of grammar; but the reality behind, i.e., the complex change processes that have created them, remain obscure, at least from a synchronic perspective. Hence, we may observe that at least in morphosyntax, economy, frequency and high functional interaction contribute to convergence and widespread geographic homoplasia, transgressing boundaries of families and branches and even, in some cases, the boundaries between migratory and non-migratory families. Here, our observations are in line with previous research on temporal stability of typology. However, our addition of ancient data may contribute to the discussion, for instance concerning the controversy about the causalities for the stability over time for word order patterns. In a separate study we tested, by means of an evolutionary reconstruction model, the areal pressure of the feature variants of our data (based on Indo-European languages only). A clear pattern emerged first after a recoding was performed, distinguishing gains from losses. Features involved in grammatical relations were coded as either simplifying or complexifying, whereas features not involved in grammatical relations, i.e., word order and features pertaining to inflectional typology (agglutination, fusion, etc.), were coded as neutral. The result indicates that simplifying changes (i.e., loss of morphosyntactic features), together with neutral changes (word order change) have a high areal index, indicating that they are more likely to undergo convergence or advergence. Complexifying features (i.e., gain of morphosyntax) have a low areality index, meaning that they are less likely to converge and more likely to emerge in isolation. Since this study was based on a majority of the grammar data presented in this book, we assume that it may explain — though in various ways — the patterns that emerge out of the data.

In our data, vocabulary shows a behavior which is different from grammar. In vocabulary, language contact, divergence and advergence can be observed and measured more easily than in grammar. We know from recent research that change rates in vocabulary (based on basic vocabulary) is slower than in grammar. In basic vocabulary, the most loan-resistant part of the lexicon (even though change rates may be different drift is constrained by lineage, which makes basic vocabulary useful for establishing language phylogeny and language classification. Therefore, basic vocabulary also typically produces branch-constrained patterns.

As we have demonstrated in chapter 6, the discrepancies in the behavior of lexical concepts of our culture lists is huge (see the overview in table 39). We assume that factors such as economy and frequency (like in basic vocabulary), as well as cultural functionality affect the change behavior of these vocabularies. Like in the grammar, we find both features that produce widespread homoplasia, as well as features that produce high divergence. However, the causes for widespread homoplasia in vocabulary are supposedly different from those for grammar. In vocabulary, widespread homoplasia can be caused both



by stability, i.e., by lexemes that are inherited and spread over large areas by lineage: examples in our data are SALT and MILK. Widespread homoplasmy can also be caused by instability or borrowability, i.e., by lexemes that are secondarily spread over large areas by borrowing or are wanderwörter: examples in our data is JACKAL. These are two disparate processes, which nevertheless yield a similar result in terms of geographic distribution of cognacy. An important difference is the family distribution: the stable type does not transgress family boundaries, whereas the convergent type typically does. For the other words not belonging to one of these types, the geographic distribution is more or less divergent. However, for vocabulary, the procedure that creates divergence is complex, mainly due to the unpredictable impact of culture change. As we have seen in chapter 6, the discrepancies in behavior, also between closely connected concepts, may be surprisingly large. A term for a hunted animal, such as bison or wild boar, may behave completely differently from its domestic counterparts, ox/cow and pig, to which they are tightly connected by colexification. Wheat and rye, to take another example, two closely connected crops, behave differently with respect to borrowability and semantic instability. In general, high functionality and a presumed high frequency in terms of everyday usage within a family, branch or area, imply high stability, both in terms of low borrowability, low semantic instability, and low level of lexical substitution. The result is geographic blocks of lexical homoplasmy, which mainly follow family and branch boundaries.

Of high interest is the behavior of lexemes due to their cultural role and functionality. In chapter 6, we classify culture words by their borrowability, semantic instability, colexification, and cognacy, and thereupon, we test statistically the average behavior of the classes in terms of borrowability, semantic instability, and cognacy. Even though there is variation between individual concepts of the classes, the tendency that emerges from the average of our classes is interesting. First, we notice that borrowability and the other three metrics (semantic instability, colexification, and cognacy) behave differently. In another study, we test change rates (loss rates) by the evolutionary model described in 6.3.7. The results correlate positively with the metrics semantic instability, colexification, and cognacy, but the correlation to borrowability is slightly negative. Therefore, we should consider borrowability and semantic instability as separate indices of lexical change. Of the three metrics semantic instability, colexification, and cognacy, the metric semantic instability gives the clearest result. We will therefore refer mainly to this group in our evaluations. Another highly interesting metric is the frequency of the different genders masculine, feminine and neuter in our data.

In the cluster of our most stable classes, both in terms of borrowability and instability, we find cultural activities (verbs), as well as cultural products, i.e., concepts for items that are eaten, drunk, or manufactured at daily basis. Further, we find small cattle (SHEEP, GOAT, etc), pig words, the domestic animals dog and cat, and drink and drugs. Another group of words belong to the same category, namely words pertaining to the nature, such as seasons, (SUMMER, WINTER, AUTUMN etc), trees, or metal words. We distinguish these as two different types, since they, even if they share similarities, also are critically different in other aspects and belong to two different domains.

Beginning with this stable group, we put the words into two main domains, which we, following upon a structuralist tradition.

In another group, characterized by higher borrowability and higher semantic instability, we find objects pertaining to the out-door or large-scale farming space, with cattle, poultry, domestic insects (BEE), crops, and tillage. These classes still represent farming activities, but they are culturally distinct from the

previous group in the sense that they are connected to the outdoor farming, the barn, and the tillage. We organize this group under the CULTURE domain.

A third group incorporates materials connected to manufacture (STONE, WOOD), weapons, implements and vehicles. These are classes representing a higher level of labour intensity and technological innovation, and are important instruments and objects in activities involving hunting and war. These classes are high in borrowability and high in semantic instability. Surprisingly enough, considering the average frequency of genders in our data, these classes are dominantly of feminine gender. Again, this groups belongs to the CULTURE domain.

Finally, we have a group of words that fall under the NATURE domain. This consists of two parts, which are different in their behavior. First, we have game animals, predator animals, and predator birds, which are highly divergent in terms of borrowability and/or semantic instability. Here, we find our taboo concepts, words representing objects targeted by superstition, ritual and worship, such as our wild and hunted animals. These are either low in borrowability and high in semantic instability, or vice versa. An unexpected result we find for the European indigenous predators, such as wolf and bear, which have very low rates both in borrowability and instability, whereas the deer and wild boar, on the other hand, have high rates for instability and low for borrowability. Why do we have these contradictory results? All these animals are hunted and dangerous and would potentially be affected by taboo replacement. A fundamental difference may explain the result: the deer and the wild boar are worshipped and desired, the predators are feared and undesired, and humans cannot, how much they try, impact the existence of these hated animals. Therefore, their designations do not change. As for gender, words of this group are also predominately masculine or neuter. Second, we have the non-animate terms belonging to the NATURE domain, which are metals, seasons, and trees. Lexemes of these groups are stable, they have low rates in both borrowability, instability and cognacy, and words are predominately either masculine or neuter.

From this behavior of vocabulary, we can trace the impact of a cultural system, where concepts designating objects or activities connected to the household or the "safe-space" of daily life, such as eating, drinking, or "harmless" manufacturing, e.g., of fabric, are found in the most stable class. In this group, we also find the household animals, cat and dog, as well as the small cattle, goat and sheep. Higher levels of instability and borrowing recurs outside of the farming's household, by concepts connected to the farming process, such as tillage, crops, cattle, poultry, pig words, and draft animals. In the most unstable group we find artifacts and materials that are related to technology, industry, and war, such as tools, weapons, materials that are the process of hunting, and vehicles. Concepts here have high rates in both instability and borrowability. As mentioned earlier, the dominance of the feminine gender (in Indo-European) is noteworthy and implies that gender assignment can have a cultural explanation: concepts of this group are typical within "male" domains, such as hunting, technology, and war. Our category connected to the wilderness, including the predators, game animals, predator birds and metals show a highly divergent pattern. The nature represents the given environment, which may be changed or altered by cultural activities, such as hunting or forestry. Here, we find highly varying levels of borrowability and instability, but in general, large parts of the concepts have low rates and are dominantly either masculine or feminine.

The system can be interpreted as a reflection of a structure, with the "in-door" household, the whereabouts of the family, the women and the children, in the centre, the surrounding "outdoor"

farmland and further the industry and war in the outskirts of the cultural sphere. The two latter are mainly the "male" zones in a traditional society. We are looking at a very fundamental system for farming societies, where the settlement, the residence of the family or clan, has a central role, representing order and stability as opposed to the nature or the wilderness, which represents chaos and danger. The wilderness has to be controlled by rituals and sacrifices, by the law and order of religion. In language, the system reflects the cognitive perception of speakers rather than the system created to control it. The indoor "safe-space" is steadily reproduced by lineage, generally with little change in inheritance, borrowability and semantic change. The out-door space generates more change, both in terms of borrowing, semantic change, and lexical substitution. The industry and war zone is even higher in lexical change. Finally, the wilderness, the sphere of hunting and exploration, gives rise to highly uneven rates of lexical substitution, borrowing, and semantic change, in partly by processes such as metaphor, metonymy and other types of taboo replacement.

This dual system of cultural spaces is likely partly cultural, partly cognitive or universal. It should be considered as unique to farming societies, in the respect that it is, on the cultural side, centered on the settlement. In other respects, the spaces reflect fundamental aspects of human behavior, such as the organization of the family or the clan, the role of the mother and the ego as the safe-space of the growing child, something that is, e.g., reflected in the effects of sound symbolism on basic vocabulary.

Another interesting issue is to identify whether there are differences between our families in terms of change behavior. This is definitely the case; but not always as expected. Beginning with grammar, we notice that an important difference is the higher tendency to divergence in the zones of the non-migratory families languages (Caucasian, Basque). This goes for almost all features except the most converging ones. This observation is not new; it confirms earlier observations on residual languages. However, when it comes to vocabulary, we may notice some interesting differences between the migratory and the non-migratory languages. First, we notice that there is a surprisingly high level of apparent cognacy shared between the Caucasian families (Kartvelian, Nakh-Dagestani, and Northwest Caucasian) in our vocabulary. Considering the presumed high time-depth of the proposed proto-languages of these families, this is noteworthy. In addition, the relative semantic stability in these families, or conversely, the tendency of change, when present, is interesting. Compared to Indo-European, we notice the absence of metaphorical changes outside of the cultural sphere of the concepts within the etymologies. Take for instance the predators: whereas Indo-European languages are overflowed with metaphorical meaning changes leading in all kinds of directions, in particular human transformations, Caucasian lexemes stay within the animal kingdom, even within the close family of the animals' species. The tendency for the game animals is similar. Even though we know that Caucasian people feared and worshipped dangerous animals, also in cults involving manto-animal transformations, we see no reflexes of this practice in language. In another study based on our data and using the evolutionary reconstruction model, we investigate these change patterns more carefully (Carling, Hammarström, Cronhamn, Svensson, et al. Forthcoming). This study indicates that in Indo-European, metonymic change outside of the semantic domain (SUMMER > RID) is the most frequent type of change, followed by metaphor. In Caucasian families it is the other way round, with metonymy within the semantic domain (e.g., WOLF > HYENA) was the most frequent change, followed by metonymy outside of the semantic domain. Metaphor is almost absent. In general, this confirms the patterns that is visible in the colexification and meaning change charts.

A likely explanation for this difference between Indo-European and Caucasian families is the environmental adaptation of speakers of these languages. The relocation of migratory family languages gives rise to a more frequent need for semantic adaptation and change in the vocabulary of cultural concepts: the continuous exploration of new environments and establishment of new settlements likely has an impact on the vocabulary, in particular the semantic change. Furthermore, the frequent contact with other language groups affects the levels of borrowability and lexical substitution in the vocabulary.

Our data reflects the vocabulary of farming and pastoralist societies, and for that purpose, our results may be of secondary relevance to other systems, such as hunter and gatherer societies. Farming, as well as pastoralism, represents a system that has a long history both within the families of non-migratory (Basque, Caucasian), as well as in the migratory families (Indo-European, Uralic, Turkic). Without doubt, we should reconstruct farming and pastoralism as systems that were inherent for at least Indo-European, Basque, and Caucasian families. There are several reasons for this. Beginning with Indo-European, a difference in the reliability of reconstructions contemporary comparative linguistics, which is also supported by evidence from ancient DNA is currently the most likely theory of Indo-European origins, but in some aspects, the Yamna theory does not match reconstructed linguistic data. On the one side we have the huge area and the high diversity of the Indo-European family, the high certainty of reconstruction of farming vocabulary, the presence of ancient migration words shared with both Semitic and Caucasian languages, and the peripheral position of the Yamna area (roughly contemporary Ukraine) in terms of linguistic diversity and contact. On the other side we have the evidence by genetics, archaeology, and the arguments of etymologies in Greek and Germanic that cannot be reconstructed and are likely to be substrate. Genetics, like archaeological data, is very difficult to connect to populations of languages of the past. The evidence of language and culture, together with areal evidence amassed from thousand of years of documented change weighs heavier.

Putting our grammatical and lexical evidence together and considering the areal patterns of features, both individually, in classes, and together, we may identify a number of distinct areal zones, which are characterized by specific behavior in terms of mutual contact and change. The first most striking tendency, falling out both from our lexical and grammatical data, is the division of our area into two regions; one eastern and one western. Even though Indo-European language family splits between the two regions, there are differences also among the Indo-European languages in our data that point in the direction of two disparate zones. First, the tendency is visible in grammar data, where the eastern and western region languages cluster with each other. The flow patterns of loans of culture words show a similar tendency: eastern languages are more frequently in mutual contact with each other, western region languages with each other.

Apart from that, we may identify a number of distinct areas, which can be defined by their development, their level of impact upon other languages by language contact, as well as their general geographic position (map 58). First, we identify the Central Asian migration zone. stretching from Mongolia to Eastern Europe and Caucasus, in grammar characterized by a widespread agglutinating tendency. In a later phase (2000-500 BP), the area is characterized by a large impact from Turkic and Arabic languages in terms of language contact. This is mainly the area of the migration of Turkic languages. In an earlier phase, around 4000-2000 BP, the area constituted a spread zone for Indo-Iranian languages, which were in contact with the adjacent Uralic languages to the north. Second, we have the South Asian development zone. Even though our lexical data from this area is scarcer, we can identify a South Asian zone (in our data mainly of Indo-European languages), typically characterized by deviating patterns in the

vocabulary, as well as a special development of grammar patterns. Even though not reflected in our data, we assume that the Dravidian component is substantial in this zone. Next comes the West Asian contact zone. This area, including Anatolia and West Asia, is characterized by very ancient written sources. The zone is, already in antiquity, characterized by high linguistic diversity, many relic languages, a high level of language contact, and frequent substitution of language populations. This is also, during history, a source area of many crucial innovations in cultural systems. Between the Black and Caspian Sea, we have the Caucasian accretion zone. This area, which is generally characterized by a favorable climate, is an area of high linguistic diversity and independence, inhabited by the non-migratory Caucasian families. The high diversity and slow rate of change is evident from all data, both grammar and lexicon. The history of the spread of farming during the Neolithic and Chalcolithic periods indicates early contacts with the West Asian contact zone, from where all cultural innovations must have been imported; yet there are few evident traces of early borrowing in the Caucasian families: most culture words have independent, inherited forms. In a later phase, there is a considerable impact from the Central Asian zone, through lexical borrowing from Turkic. In our vocabulary data, we see that the three families of Caucasus, Kartvelian, Nakh-Dagestanian, and Northwest Caucasian, form a unity of frequent shared cognacy. However, in terms of early language contact, these families are relatively independent in relation to the other families (Indo-European, Uralic). Numerous independent and inherited terms in Caucasian families for core culture lexemes, such as wheel or plow, indicate an independency. Moving to the east, we have the Eastern European periphery. This area is characterized by a generally lower diversity (also taking into account that many Uralic languages are absent in our data), and a tendency to diverge, in grammar and vocabulary, between the eastern and the western regions. We notice that the area, which in our data is mainly occupied by the Balto-Slavic languages, often forms a block with (Northern) European languages, but, in general (both grammar and vocabulary), the area is mainly characterized by conservatism. This is evident among others from the cluster analysis of grammar data. For this reason, we label the area "periphery" rather than "development zone". In addition, borrowings are rather in the direction to the area than from the area. Our next area is the South-Central European development area. This area, which is concentrated to the central parts of the Mediterranean and continues up to northern Europe, is characterized by an intense language contact and high borrowability, mainly in a direction south-to-north, but also from time to time north-to-south as well as central to east and west. In grammar, we notice a far-gone stage of development and areal convergence, visible at both individual and general levels. North of this we have the Northern European periphery, mainly including northern parts of Scandinavia. This area is characterized by occurrence of local conservation zones and a general tendency (with some exceptions, such as Old Norse) of languages to be the target of loan rather than the source. Finally, we have the Atlantic periphery, which also has, compared to the South-Central European development area, a more peripheral role, in that that languages are the target of borrowing rather than the source. The area also hosts the Basque accretion zone, an area of high linguistic conservatism.

The aim of the current volume has been to investigate language change in time and space by means of salient grammatical and lexical change in a number of languages over a cohesive linguistic macro-area. The results give both a unified as well as a divergent picture, which is a good thing. In the introduction of this volume, we describe our theoretical framework where we see language as a complex, dynamic organism, in which change is divergent down to the most detailed level. The data confirms the theory - at least in principle. There are also astonishing exceptions, such as the occurrence, both in grammar and lexicon, of wide-spread geographic homoplasy, which even has the capacity to transgress the boundaries

of total mutual unintelligibility, i.e., to erase the boundaries between highly remote families. Likewise, there are features that over time seem to be in a frequent, recurring state of divergent change: they seem never to subdue to conflation or convergence.

To sum up; the current atlas has selected -35 grammatical features (-120 variants) and -100 lexical concepts that we have considered to be of continued importance in a Eurasian context and from a deep historical perspective. We have looked carefully at all the change processes of these selected features over a distinct macro-area, from the earliest sources and up to present day. Even though there are clear patterns in the data, the picture is highly dynamic and often blurred. Language change is a complex issue, which is entirely intertwined with cultural and environmental change. In addition, -35 grammatical features and -100 lexical concepts represent only a fraction of a complete language, which is far more complex than that. Therefore, we are fully aware that the change histories of other features may indicate other tendencies than what we have demonstrated here. That remains an issue for further investigation. <>

### Essay: How to Read More: Eight tips to make more time for reading.

In the age of social media and on-demand television, books can take an involuntary back seat. To help bring the written word to the forefront of your to-do pile, here are some ways to create more time for the age-old pastime of reading.

#### Always carry a book

Carrying a book with you means you can use every spare moment to squeeze in another page. Waiting for a friend? Delays at the doctor? Standing in a queue? All ideal opportunities to pick up a book. Try these Vintage Minis or Pocket Penguins for great reads in pint-sized packages.

#### Download ebooks to your smartphone or tablet

With the ability to adjust font size and screen brightness, reading on your smartphone or tablet is easy and a great way to have your favourite books at your disposal, wherever you happen to be. As an added benefit, you have access to thousands of titles in one place as well as the ability to download sample chapters, so you can try-before-you-buy.

#### Try short stories or novellas

If you're finding bigger books overwhelming or hard to get through, consider a collection of short stories or even a novella. If you love thrilling crime, try James Patterson's Bookshots or Lee Child's No Middle Name. If it's the classics you crave, you might enjoy George Orwell's Animal Farm or The Driver's Seat by Muriel Spark, and if you're looking for something contemporary try Only the Animals by Ceridwen Dovey, Haruki Murakami's Men Without Women or Uncommon Type by Tom Hanks.

#### Find your future reads

Sometimes the biggest struggle is deciding what book to read next. Perhaps you're experiencing that post-great-book foggy bliss, or maybe the last book you read wasn't quite up to scratch and you're unsure what to move on to. A way to combat between-book limbo is to start a to-be-read list. Keep it on your phone, computer, or in a notebook – somewhere close at hand and ready to refer to. Or write the books down on separate pieces of paper, fold them up, pop them in a jar, and the next time you're at a loss, shake the jar and pick one out at random. To keep things interesting, you might come up with a reading pattern, i.e. going from non-fiction to fiction, new release to classic, or Australian to

international. However you do it, being prepared will mean less time wasted deciding, more time spent reading.

#### Join a book club

There's nothing like a looming book club gathering to motivate you to finish a book. We've got tips for starting a book club if you need help getting your group up-and-running, or you can browse our selection of book club notes to stimulate lively discussion.

#### Turn it into an activity

Reading is not a couch-only affair. Take your book out somewhere with you; pick a park bench, a spot on the grass, or settle in at a comfy café. Why not extend the invitation to a close friend? Ask them to bring a book too and make it a reading date.

#### Make it a habit

Creating a habit takes repetition. Connect reading to something you do at the same time every day to cement it into your routine. Pick up your book while you're waiting for your eggs to boil or on public transport while you commute; while you're standing in line for your morning coffee or eating lunch. If bedtime is 10.30pm, why not get into bed at 10pm and read for half an hour instead? The more you read, the more you'll want to, and these habits will become part of your daily routine in no time at all.

#### Spend more time in your local bookshop

When you're trying to be more active, spending extra time at the gym or outside is an obvious place to start. Likewise, if you're trying to read more, spending time surrounded by books is only going to inspire you to do so. Don't forget that booksellers are a valuable source of literary knowledge, so if you can't decide, let them know what you enjoy and they'll happily point you towards your next great read.

### Reading Goals for the Year Ahead

If you're looking to make a different kind of resolution this year, try setting yourself some reading goals. Whether it's trying a brand new genre, sampling a new format (think ebooks, audiobooks) or just setting aside more time in your busy schedule to read; here are 12 tips to push yourself out of your literary comfort zone and discover new reading delights.

#### Read by colour

While some may live by the adage 'don't judge a book by its cover', that doesn't mean you can't choose one based on it. Decide on your next read by your favourite colours, read the rainbow, pick pastels or even go black and white, it's a whole new approach to reading that might just unearth something wonderful – all while curating a colourful bookshelf. Check out our most eye-catching book covers from 2017.

#### Step outside your comfort zone

Do you tend to stick to the same genres when it comes to selecting your next book? This year, venture into something new; if you're usually a fan of historical fiction, pick up a non-fiction history book that reads like a narrative. Love crime and thrillers? Sometimes the scariest books are true crime. Be bold and try something you wouldn't usually choose – you may discover a new literary love.

### Collect the classics

Let's face it, they're considered classics for a reason. Tales that have stood the test of time and been read, re-read and studied by readers around the world. Here are just a few recommendations to get you started.

### Read it after you see it

If you're the type of person who finishes a TV show or movie and just wants more – go back and read the original book it was adapted from. From *The Handmaid's Tale* to *Outlander*, *Thirteen Reasons Why* to *Anne of Green Gables*, there are plenty of books-to-big screen stories to get you started.

### Swap screen time for book time

This one is easy in theory, but may prove harder in practice. Next time you go to pick up the remote, head in the direction of your bookshelf. Leave your smart phone in another room during reading time so there's no risk of interruption – you could even unplug the Wi-Fi if you dare. And be sure to always take a book to bed.

### Indulge in some armchair travel

Embark on a literary journey to an exotic new location. Discover some of the incredible local authors like Tim Winton, Judy Nunn, Candice Fox and Robert Drewe, who capture the various landscapes of the Australian coastline, outback and desert so well. Then venture overseas guided by voices like Fiona McIntosh, Monica McInerney, Bill Bryson and Katherine Scholes.

### Cook your way through a book

Julie Powell was determined to cook every recipe in Julia Child's book *Mastering the Art of French Cooking*. She documented this in her memoir *Julie and Julia: My Year of Cooking Dangerously*, which was later adapted into the 2009 film *Julie & Julia*. Take a leaf (or a fork) out of her book and set yourself a cookery challenge. Keep it simple with Jamie Oliver's *5 Ingredients* or, if you're game, try something more challenging like *Sweet* by Yotam Ottolenghi. Whatever you choose, rest assured it'll be a delicious adventure.

### Get together

*'No two persons ever read the same book'* – Edmund Wilson.

Book clubs are a great way to get together with friends and discuss the latest buzz book over tea, coffee or wine. If you don't have one you can join, check out this handy guide to starting your own. Already have one? Take a look at our list of [Book Club Notes](#) here.

### Be uplifted

Read a self-help book (even if you don't think you need one). The reality of modern self-help books is that there's a huge focus on positive growth, personal improvement and mindfulness; you don't need to have a problem to fix to benefit from them. Whether it's a new skill or a fresh perspective you're after, you'll find plenty of great titles to get you started here.

### Awaken your inner child

Parents and teachers alike will agree that children's books can be just as profound, entertaining and moving as books written for adults. Next time you're in a bookshop head to the kid's section, and indulge your inner child.



### Change your ways

Thanks to technology you don't need to have half a kilo of paper in your hands to enjoy a great story. From ebooks on your smartphone or tablet, to audiobooks – the way we read and consume books is changing and adapting to make it easier and more accessible. About to embark on a long drive or training for a marathon? Download an audiobook. Going on a long holiday with just hand luggage? Give an ereader a try. . .

### Get festive

Celebrate all things reading and writing at your local writers' festival. From intimate receptions with your favourite local and international authors to showcases with up-and-coming literary voices, you'll leave inspired and with a full to-be-read list.

## Start a Book Club

Eight simple tips for getting your reading group up and running.

Are you the type who forces every fantastic read you come across on everyone you know? Ever finished a book and wished you could dissect it with a like-minded friend? Maybe you're looking for fresh literary inspiration to replenish your reading pile? If so, a book club might just be the perfect thing for you. Here are the basics on how to start one.

### 1. Spread the word

Tell friends or work colleagues that you're keen to start a book club and invite a group of people to the first meeting. After one session, you'll get a fair idea of who might be committed to an ongoing book club, and how the personalities and interests of your members gel.

### 2. Set the tone

Will you stick to one genre such as crime or Australian literature? Maybe you only want to read debut authors or classics? Or is anything on the table?

### 3. Make a plan

Firstly, decide how often you will meet (once a month, every six weeks etc) and whether you will stick to the same day and time for each meeting. Perhaps you'll become the Last Thursday book club. To start, allocate a time that works for everyone. After the first meeting, you can decide how long your book club should run – an hour, two hours or maybe even more.

### 4. Pick a memorable name

Decide on what the group will be called – that way when you email your fellow book-clubbers you can refer to the whole gang with one title. It's also fun to belong to a group with catchy branding. Will it be *Prosé and Rosé*? Or *Read Between the Wines*? How about *Books and Beverages*? There are some great ways to theme your book club with food or drinks, so get creative and see what your club enjoys.

### 5. Choose a location

There are many places you can meet for a book club. If you've chosen a Sunday afternoon as the best time, why not meet in a park? Or see if there is a local bookshop or coffee shop where you can gather (just avoid peak times when you might struggle with noise and space). Will you change the location for each meeting or have it at the same place? If you decide to hold them at home, share the load and spread out hosting duties.

## 6. Picking titles

If you've taken the plunge to start your own book club, it's likely you've got a title in mind. From there, perhaps each person gets to pick one book in turn, or maybe at the end of each meeting people can suggest books to be put to a vote. You might find your group loved a particular title, and decide to read something else by the same author, something else from that genre or with similar themes.

## 7. Read and explore

There's a huge amount of information available on most authors and titles – dig a little deeper to surprise and delight your book buddies. To start you off, check out our book club notes, which are great for getting the discussion rolling. Or you can search around for extra content such as recipes, author Q&As or videos – things to add a different slant to your discussion.

## 8. Meet!

Have your first book club meeting and see how it goes. From there, you might want to make adjustments to the time or topics (or people you invite). With the first one under your belt, you'll get a sense of how the book club can be best run to everyone's enjoyment. <>

**PRACTICE AND THEORY IN THE ITALIAN RENAISSANCE WORKSHOP: VERROCCHIO AND THE EPISTEMOLOGY OF MAKING ART** by Christina Neilson [Cambridge University Press, 9781107172852]

Verrocchio was arguably the most important sculptor between Donatello and Michelangelo but he has seldom been treated as such in art historical literature because his achievements were quickly superseded by the artists who followed him. He was the master of Leonardo da Vinci, but he is remembered as the sulky teacher that his star pupil did not need. In this book, Christina Neilson argues that Verrocchio was one of the most experimental artists in fifteenth-century Florence, itself one of the most innovative centers of artistic production in Europe. Considering the different media in which the artist worked in dialogue with one another (sculpture, painting, and drawing), she offers an analysis of Verrocchio's unusual methods of manufacture. Neilson shows that, for Verrocchio, making was a form of knowledge and that techniques of making can be read as systems of knowledge. By studying Verrocchio's technical processes, she demonstrates how an artist's theoretical commitments can be uncovered, even in the absence of a written treatise.

**PRACTICE AND THEORY IN THE ITALIAN RENAISSANCE WORKSHOP: VERROCCHIO AND THE EPISTEMOLOGY OF MAKING ART** is geared towards an intelligent readership interested in the history and art of Renaissance Italy. The analysis of art practices make it appealing to studio artists and students, while the cultural framework in which those practices are discussed will appeal to undergraduate and graduate students and scholars in art history.

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## The Sculptured Imagination

The equating of touching and seeing that Verrocchio suggested in his Christ and Saint Thomas occurs also in his drawing of an Ideal Head of a Woman (Figure 10), but here the comparison serves a different purpose. In his sculpture the conflation of touch and sight serves to draw the devotee through the material world to the divine. The drawing, by contrast, mimics the effect of a marble relief sculpture between life and marble — representing the act of metamorphosis as if it were occurring before the viewer's eyes — to make the case that perception through the senses is a form of cognition (that one can perceive and come to know an object simultaneously). Verrocchio's defense of this position is presented through the process of making. By smudging the black chalk with his fingers, he produced a rich tonal range and areas of sfumato. These actions evoke those of the poet conjuring up the beloved in matter such as clouds and rock faces. Verrocchio's intention with this drawing, it will be argued, was to create a portrait of the beloved as carved on the lover's heart, a portrait of Love and of the poetic imagination as if sculptured.

## The Drawing's Role

Verrocchio's drawing shows the head of a woman in three-quarter pose, gazing down and off to the left, her right arm apparently extended. Her hair is bound with ribbons and a veil that flutter in the breeze. Running down both shoulders are plaits of hair, which become disheveled at their ends. Verrocchio began by sketching his figure in black chalk, delineating the woman's head and then stumping (smudging) the chalk in areas within the outlines. Verrocchio's technique is extraordinary. Artists up until this point had used black chalk only to form sharp outlines, but Verrocchio recognized the potential of black chalk for tonal possibilities and stumped the chalk to create a sculptural tonal range. The chalk was supplemented with hatching in light brown ink, mostly applied in tiny strokes across the forehead, left eyebrow, and left cheek; above the left eye; and in the shadows of the neck and collarbone, furthering enhancing the sculptural effects of the black chalk. More definite areas of hatching were made below the nose and around the point of the chin) The drawing was pricked, presumably for transfer, at an unknown date.

Given the pricking, and the resemblance between the woman in the drawing and those in paintings and other drawings by Verrocchio and his workshop, the Christ Church Ideal Head may have been made as a cartoon.' Certainly it served that purpose at some point, as there remains charcoal pouncing dust in its perforated holes. But there is no surviving painting to which the drawing relates directly. Furthermore, there are significant discrepancies between the drawing and the pricking.' Most importantly, the highly finished quality of the drawing, with the considerable attention paid to subtle surface effects (unnecessary in a preparatory study for a painting), suggests that its purpose was much more than merely preparatory and that it stood as a demonstration of the artist's technical virtuosity.

The final decades of the Quattrocento witnessed significant developments in the history of drawing, and it was in the graphic medium that many important attitudes to art making were forged. As Elizabeth Cropper has argued:

Between the lifetimes of Vasari and Cennini, or even Ghiberti, there came into being a new kind of art made by the hand of a new kind of professional who was no longer called an 'artigiano, but an artista (as Michelangelo called himself). Whatever the social, political or economic circumstances of that change, there can be no doubt that drawing was its form of expression, its instrument, its justification, its trace, its nursery, and sometimes its battleground.

In particular, it was during these final decades of the Quattrocento that the idea of disegno as a transcendental idea in the mind was formulated, explored in the technical experimentation of artists like Verrocchio and his contemporaries, as we shall see, and later theorized in writings."

Giorgio Vasari singled out Verrocchio's drawings of heads of women as influential, writing: "[T]here are some drawings by his hand in our book [Vasari's drawing album, his *Libro dei Disegni*] made with much patience and great judgment, and among these are some heads of women, with graceful manner and hairstyles that, because of their great beauty, Leonardo always imitated.

Vasari's practice of collecting Verrocchio's Ideal Heads points to the tendency among sixteenth-century connoisseurs to treat drawings as works of art in their own right, among which those depicting beautiful women were especially prized. Although scholars have assumed that it was only in the sixteenth century that drawings came to be regarded as independent works of art, some held this attitude in the preceding centuries.'] Certainly works on paper were collected earlier, and a number of works by fifteenth-century artists have been identified plausibly as examples of finished drawings, among them works by Leonardo (Figure 119), Francesco di Giorgio, Pisanello, Lorenzo Costa, Jacopo Bellini, and Andrea Mantegna. As we shall see, the poetic context in which Verrocchio's drawing must be understood suggests that his Ideal Head would have been considered an independent object.

### Drawing as Defense of Sculptured Relief

The intricate and varied techniques employed by Verrocchio in his drawing bring about a complex and slow viewing experience that, when combined with the tremendous tonal range produced through his use of materials, suggests that the represented form is undergoing a metamorphosis. Verrocchio's technique demonstrates an interest in evoking actual sculptural materials. His representation of the effects of light on the surface of the woman's face, especially across her cheek, creates a marmoreal luster, achieved by stumping the chalk and leaving some areas of the face untouched. In addition to evoking a marble surface, the parallel lines of hatching in ink blur when viewed from a distance, creating a golden tone that suggests the warmth of living flesh. Through his processes of making, Verrocchio creates the effect of a woman's head as if between marble and living flesh.

Verrocchio's stumping in his Ideal Head of a Young Woman is extraordinary. It is an early — perhaps the earliest — example of sfumato, a technique associated above all with his pupil Leonardo. Verrocchio's use of the technique, however, is different from Leonardo's. Whereas Leonardo blurred the outlines of his forms, creating a haziness that suggests his figures are emerging from the background, as they would in nature, Verrocchio used sfumato solely within the contours of his forms and maintained an outline.' This adherence to a boundary has been interpreted by scholars as a failure on Verrocchio's part to represent a form in the round. But given Verrocchio's demonstrated technical capabilities in his use of sfumato for the areas of flesh tones, which come close to Leonardo's revolutionary procedures, it is worth considering the possibility that Verrocchio chose to represent his forms in this way. Verrocchio's novel use of materials, combined with the unsmudged outlines of his forms, suggests a drawing of a head carved in low relief. Although the figure we are observing seems to shift between stone and living flesh, this metamorphosis is in fact mediated through a specific type of

sculpture: Verrocchio's refusal to represent his form in the round suggests that what we are looking at is a sculptured relief, and his drawing can be read as a defense of actual sculptured relief carving. Leonardo celebrated imitated relief at the expense of sculptural relief in his writings on the basis that imitated relief was a form of mental speculation, whereas actual relief required only physical labor (underlying Leonardo's attitude was his belief that painting was superior to sculpture). While Leonardo promoted imitated relief because it was rendered in two dimensions, Verrocchio's drawing suggests something different. His refusal to represent his form in the round implies that through his evocation of a marble sculpture, he was promoting an appreciation of sculptural relief, which he expressed through the graphic medium.

Why did Verrocchio use a drawing to defend sculptural relief? His interest in re-creating textural effects suggests the possibility that Verrocchio sought to establish an analogy between touching and seeing, and thus between drawing and sculpturing. This is supported by a technical point: some of the sfumato in the Christ Church drawing seems to have been achieved by the artist smudging with his finger closely spaced, parallel lines that he had drawn, and thus using his own sense of touch to achieve an effect on the viewer's eye. Verrocchio's practice reinforces quite literally a connection between seeing and touching, implying an assertion of the power of tactility as a mode of knowing. In his innovative use of stumping, and by leaving areas devoid of matter, Verrocchio created sensuous marmoreal surfaces whose effect on the eye evokes the experience of touching, thus the sfumato suggests to the viewer the sensation of touch caressing cold marble and living flesh. In other words, Verrocchio proposes that to look at the woman in his drawing is the same as to touch her, whether she is sculptured or real. This equivalence between touching and seeing in the drawing can be read as a visual argument about perception being a form of cognition, where perceiving something through the senses is the same as knowing.

### Touching as Seeing, Perceiving as Knowing

The link between perception and cognition was one made in Renaissance theories of disegno. Although it has been assumed that this concept of disegno as a method of knowing the world and of representing it was a product of sixteenth-century art theory, the graphic output of several fifteenth-century artists, including Verrocchio, suggests that the notion was already being explored in the late fifteenth century. Moreover, as Carmen C. Bambach has pointed out, twice in his fourteenth century *Libro dell'arte*, Cennino Cennini's use of disegno anticipates the Cinquecento use of the term. In his section on practicing drawing with a quill, Cennino writes: "Do you know what will happen to you if you practice drawing with a quill? It will make you skillful, accomplished and capable of a lot of drawing of your own invention." And in his chapter on drawing on paper with charcoal, Cennino recommends a system of measurement that could be transferred from figure to figure and to buildings. If his reader did this, Cennino claims, they would be guided by their judgment, and with this they would find the truth. The second of Cennino's maxims on disegno is remarkably similar to that espoused later by Vasari in which he outlines how drawing involves the simultaneous understanding and representation of an object:

Because design, the father of our three arts of architecture, sculpture, and painting, proceeding from the intellect, derives from many things a universal judgment, like a form or idea of all things in nature — which [nature] is most consistent in its measures — it happens that not only in human bodies and those of animals, but in plants as well and building and sculptures and paintings it [design] understands the proportion that the whole has to the parts and the parts to one another and to the whole.

And because from this there arises a certain notion and judgement which forms in the mind that which, expressed with the hands, is called design, one may conclude that this design is nothing other than a visible expression and declaration of that notion of the mind, or of that which others have imagined in their minds or given shape to in their idea.

Leon Battista Alberti also appears to have attributed to disegno the potential to represent and know its subject. This is suggested, above all, by his use of the term *lineamenta* in his treatise on architecture, *De Re Aedificatoria*. As Caroline van Eck has convincingly argued, *lineamenta* is best translated as "design," because this implies how "it can refer both to the mental activity of planning or designing and its material form, a drawn line or even a ground plan." That Alberti intended "intellectual design" by the term *lineamenta* (something created in the mind and realized through drawing) is suggested by his use of the term in his definition of a building, where he sets it against the term *materia*. Later Leonardo espoused the view that drawing was an instrument both of knowing and investigating reality: "this disegno is of such excellence that it not only investigates the works of nature, but infinitely more than those that nature produces. This demands of the sculptor that he finish his images with knowledge." In their attitude toward disegno, then, artists and theorists from the fourteenth century onwards indicated the potential for a close relationship between the idea in the artist's mind and that which they represented in drawing, an opinion Verrocchio appears to have shared and attempted to prove through his practice.

The relationship between representation and thing suggested in Verrocchio's drawing — how to describe something (perception) and know it (cognition), and whether those two were the same or different — was the subject of dramatic transformation during the Renaissance, and it appears likely that Verrocchio would have been familiar with it. It is central, for instance, to the story of Geta and Birria, contained in three commonplace books made in Verrocchio's workshop. As we have seen, in the vernacular version known to Verrocchio and his contemporaries, this comedy of mistaken identity centers around the character of Geta, a foolish servant recently returned home from Athens, who is tricked into believing he is no longer himself. As Geta contemplates his situation, he concludes that word (his name) and thing (his essence) have become separated:

'Who can speak with the voice of Geta if he is not Geta? Well, how could this happen? I know very well that logic does not prevent two people from speaking with similar voices. And it is also very common for the same name to be given to two people' ... [Geta ponders his situation]: 'The voice and the evidence clearly suggest that this is Geta ... Thus have we become two that formerly were one? This I cannot understand' ...

[After more thought, he concludes]: 'Undoubtedly, I have found out that I have become two.

The target of satire in *Geta and Birria*, like its medieval source, is Scholastic thought, in particular, the concept of universals. Geta's concern about his name is closely tied to Peter Abélard's discussion of universals and the issue of names. In a nutshell, the problem of universals (the common designation for individual objects of the same kind) concerns the question of whether things "have any independent reality or exist as mere notions and if that is the case if they are corporeal or incorporeal, if they are independent of the sense or require them, or if they are merely the products of thought." Such issues are central to the story of *Geta and Birria* for, as Birria, a wise fool and the other servant in the story, remarks: "Geta is crazy ... [thanks to] his great knowledge [(logic)]." In the course of the story Geta is philosophically and metaphorically destroyed.<sup>9</sup> The relationship between object and representation, which I am arguing is central to understanding Verrocchio's drawing of an Ideal Head of a Young Woman, then, was a topic in Renaissance vernacular culture and one with which Verrocchio would have been familiar.

## Perceiving and Knowing through Artistic Practice

In addition to Verrocchio's awareness about the relationship between perception and knowledge from vernacular tales like Geta and Birria, the artist would have encountered it every day through his experience of working with matter. At the heart of Verrocchio's practice was his use of the senses as the gateway to knowledge and understanding of his materials. Over many years Verrocchio would have refined his skills in working with materials to understand how they should be treated. For objects in bronze, for instance, Verrocchio would have used the senses of sight, hearing, and touch to locate the best materials with which to begin preparing his alloy. To recognize pure tin, he would have looked for the whitest and hardest tin he could find, listening for it to "crackle" (like the sound of breaking ice), bending it with his hands, or holding it tightly in his teeth, as the sixteenth-century metallurgist Vannoccio Biringuccio explained it was done. Different types of objects were made from alloys of various proportions, and Verrocchio would have depended on his sense of touch to decide how much to use, by feeling the weight of the alloy. To determine how much tin to use for making the alloy for his bronzes, Verrocchio would have used sight: copper changes from red to white with the addition of tin, and from a malleable consistency to one that is hard and brittle. Verrocchio's skills in alloying bronze appear to have been recognized by his contemporaries: in 1473 Verrocchio was paid for alloying metal for a bell for the Opera del Duomo. Verrocchio would have used his senses also to recognize a good clay with which to make the core for his bronzes. Sight could not help in this, according to Biringuccio, for there was no visible way to distinguish between clays, despite their varied colors. Instead, the modeler would have used touch to find a clay that was suitably fine, lean (but not too lean or it would be too powdery and would not hold together), held its shape well when dried and, above all, resisted fire. A document records that on one occasion Verrocchio sought a very specific type of clay for a work of his in bronze (never completed): clay from a glassmaker's oven. Finally, casting itself required great skill and knowledge, and there was much room for error. Many little things could go wrong, from a badly fitted joint or leaking of the mold through a crack, to a piece of earth or charcoal blocking the gate or filling a hole. Verrocchio would have watched the metal until it turned red or white and began to melt, and he had to be on guard so that the fire did not "form a kind of skin on top." After the addition of tin, he would have recognized when the bronze was ready by sight because it would flash "like the sun," and he would see flames that were "almost white and without smoke," as Biringuccio explains.

As a sculptor in marble, Verrocchio would have developed skills in identifying different types of marbles through sight and touch. Using a variety of mallets, hammers, axes, punches, chisels, drills, saws, files, and rasps, Verrocchio created virtuosic effects in his marble sculptures. To suggest the transparent veil that covers the chest of his female subject in the *Woman with a Posy*, he used a gouge for the tiny folds in the dress, a punch for the delicate border of her partlet, and a pumice stone, and perhaps earth and straw in bunches, for the polished surface. For the curls and nostrils of the same sitter and the space between the petals of the flowers that she holds, he used a drill.<sup>10</sup> The pitting across the face of Francesco Sassetti, which suggests the sitter's stubble, was produced with a sharp-pointed percussive instrument.

Verrocchio's understanding of his materials and techniques was acquired through practice, based on years of experience using his senses. Only through countless experiments of working with nature could he acquire the appropriate judgment necessary for making his objects and in an impressive variety of materials.



Through this training, the artist developed such sophisticated skills and understanding of matter that an idea could be formed in his mind and represented effortlessly with his hand. The belief that judgment could be trained through experience was one shared by many Renaissance artists, among them Donatello, about whom Pomponius Gauricus (writing in 1504) told the following anecdote: When Marco Barbo, bishop of Vicenza and nephew of Paul II, asked Donatello to let him see his abacus, Donatello invited him to come and see it the next day. When Barbo arrived, however, Donatello had nothing to show him, claiming that he was himself his abacus, which he always consulted and carried with him everywhere without effort. According to Gauricus, Donatello then asserted that if his visitor wanted to see something he should bring him paper and a stylus, then he might admire the result drawn from his abacus. David Summers interpreted Gauricus' story as proof of a belief in an artist's innate sense of judgment with no need for practical training.

However, Elizabeth Cropper and Charles Dempsey have rightly pointed out how the story of Donatello's abacus points to the necessary coexistence of training and judgment in the practice of art, where training was the precondition for judgment (that was why Donatello could throw away his abacus). As Pamela H. Smith has emphasized, the development of an artist's judgment required careful and laborious practical experience, a form of knowledge that she has aptly termed "artisanal literacy" Renaissance artists learned through practice and the errors of others to develop sophisticated skills in working with their materials, the "giudizio dell'occhio" (judgment of the eye) of Donatello expressed in Gauricus' tale.

Verrocchio not only acquired this "artisanal literacy" through his practice; he highlighted it as a theme in his work. Verrocchio's emphasis on sculptural effects rendered graphically in his *Ideal Head of a Young Woman* suggests that he was demonstrating the notion of drawing as both perception and knowledge. In his *Ideal Head of a Young Woman*, the artist pursued the close relationship between sculpture and drawing to suggest that what we are observing is a woman between life and marble. In so doing, Verrocchio appears to be claiming through his graphic practice the potential for drawing to state visually how one could both know and perceive something at the same time. His drawing is a demonstration of a hands-on understanding of the world, acquired through the senses and refined through training, that was a way of knowing, not just describing, the world.

### Representing Metamorphosis

In his evocation of metamorphosis in the drawing of a living woman turning into a marble sculpture or vice versa, Verrocchio was demonstrating the widely held belief that matter was not fixed, but always mutable. Since Aristotle and Theophrastus, marble had been regarded as living, earthly matter



suspended in water that responded to the humors." Thus, a rabbi visiting Rome in the first century could explain why the marble columns in Roman churches were covered in tapestries ("so that they might not crack during the heat and not congeal during the cold"). And in medieval Latin editions of Aristotle's *Meteorology*, marble was said to be created from water transformed into stone. The belief was widespread. Dante referred to it in "Amor, tu vedi ben che questa donna" from his *Rime petrose*: "Lord, you know that in the freezing cold/water becomes crystalline stone." Artists were certainly familiar with the theory that marble was made from water. Filarete, for instance, disproved it by cooking a piece of marble from a column from the Roman church of the Aracoeli.

The motif of a lady transformed into matter occurs frequently in vernacular love poetry, where she stands for the poet's imagination. Giacomo da Lentini (c. 1210-60?) - the Sicilian poet whose works were widely available in Tuscan and to whom Lorenzo de' Medici, Verrocchio's patron, devoted the most attention in his *Raccolta Aragona* (the collection of vernacular lyric poetry Lorenzo assembled and sent to Federico d'Aragona in 1477) — wrote in one of his sonnets: "I bear your image in my heart. It seems I bear you [my lady] in my heart, painted as you look ... Feeling great desire I painted an image, my fair, your likeness." For Dante in his *Rime petrose*, the Lady — who represents Poetry — is a stony one: over and over she is compared to stones.' Dante describes his beloved in "Io son venuto al punto de la rota," as an "image of stone" that he held in his imagination, and in "Amor, tu vedi ben" as "a lady carved from some lovely precious stone by the hand of some master carver of stone." Petrarch — whose sonnets were a favorite in Florentine commonplace books — famously refers in two poems (77 and 78) to a portrait of Laura by the painter Simone Martini, executed on paper and presumably in metal-point. And in another, sonnet, Petrarch sees Laura transformed materially from flesh into wood, specifically into a laurel tree. Of course, the topos of the beloved turned into a tree derives from Ovid's telling of Apollo and Daphne, which was well known during the Renaissance. Lorenzo il Magnifico, in his commentary on one of his sonnets (XV), describes how the beloved's image could be preserved in his heart so that it "might endure in the fashion of the hardness of a diamond "66 And in Lorenzo's *Ambra*, a nymph pledged to the goddess Diana is transformed into stone after Ombrone attempts to rape her.

The close connection between seeing and touching that Verrocchio suggests in his drawing also occurs in love poetry. According to the Renaissance theory of falling in love, little spirits (*spiritelli d'amore*) pass from the eye of the beloved into those of the lover, impressing the image of the beloved on the lover's heart. Sometimes the spirits are sent via little arrows that would strike wounds in the lover's heart ("the shot from your eyes pass[ed] straight into my inward parts," as Petrarch describes). The idea of arrows delivering love's wounds occurs also in devotional literature and in descriptions of divine love. The twelfth-century Cistercian, Gilbert of Hoyland, whose sermons were popular in Renaissance Florence, writes how Love pierces the heart through the eyes: "Would that he [Christ] might multiply such wounds in me, from the sole of my foot to the crown of my head, that there might be no health in me! For health is evil without the wounds that Christ's gracious gaze inflicts." And in his *Confessions*, Augustine writes that God "pierced my heart with the arrow of your [his] love, and we carried your words transfixing my innermost being." This sentence reached a wide vernacular readership, thanks to a paraphrasing of it by Jacopo de Voragine in his *Legenda Aurea*.

Falling in love was often described in terms that mimic the actions of a sculptor, using metaphors of carving, incising, and forming with the hands. For instance, Giacomo da Lentini writes how he "was greatly delighted, my lady, that day when I formed in wax your beautiful image." In his *Amorosa vision*, Boccaccio (whose *Decameron* Verrocchio owned) describes how his lady-love inscribed her name upon

her lover's heart. And in one of his sonnets (XIII), Lorenzo il Magnifico praises the beautiful hand of his beloved, with which she drew out his heart, tying it in a thousand knots and remaking it so that he would be inclined to love her:

O pure white, delicate and lovely hand,/ Where love and nature placed those graceful sweets,/ so noble and so lovely that it seems/ That all their other works are made in vain,/ You gently drew my heart forth from my breast,/ Out through the wound the lovely stars had made/ When Love made them so pious and so sweet;/ You entered in behind them, bit by bit,/ And with a thousand knots you bound my heart./You formed it new; and when you afterward/ Had made it noble, it won't do/ To longer seek to bind it with new knots,/ Or ever think it pleased by something else.

The unknown artist responsible for the so-called "Otto prints" represented the idea in an engraving (Figure 122), showing the beloved holding her lover's heart, which she has taken from his body as he stands, tied to a tree, before her.<sup>76</sup> (The ability of the beloved to reach the lover's heart with her hand was the result of a vein that was believed to run directly from the heart to the ring finger of her left hand and thus serve as "a messenger of the heart's intention," as Lorenzo explained in his *Comento sopra alcuni de' suoi sonetti*.) The connection between touch and falling in love was made in countless love poems, many in the vernacular, with which Verrocchio would have been familiar.

Further proof of Verrocchio's awareness of the role of touch in falling in love can be found in the standard he painted for a joust in Florence in 1475, as recorded by the artist's brother in an inventory drawn up to claim money owed by the Medici after their expulsion in 1494. It depicted a spiritello d'amore, the agent that impressed the lady's image on the lover's heart. <>

**READING BY DESIGN: THE VISUAL INTERFACES OF THE ENGLISH RENAISSANCE BOOK** by Pauline Reid [University of Toronto Press, 9781487500696]

Renaissance readers perceived the print book as both a thing and a medium - a thing that could be broken or reassembled, and a visual medium that had the power to reflect, transform, or deceive. At the same historical moment that print books remediated the visual and material structures of manuscript and oral rhetoric, the relationship between vision and perception was fundamentally called into question.

Investigating this crisis of perception, Pauline Reid argues that the visual crisis that suffuses early modern English thought also imbricates sixteenth- and seventeenth-century print materials. These vision troubles in turn influenced how early modern books and readers interacted. Platonic, Aristotelian, and empirical models of sight vied with one another in a culture where vision had a tenuous relationship to external reality. Through situating early modern books' design elements, such as woodcuts, engravings, page borders, and layouts, as important rhetorical components of the text, **READING BY DESIGN** articulates how the early modern book responded to epistemological crises of perception and competing theories of sight.

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## Looking at the Book

For now we see through a glass, darkly; but then face to face: now I know in part; but then I shall know even as also I am known  
KW, Corinthians 13:12

And in her other hand she fast did hold  
A booke, that was both signd and seald with blood,  
Wherein darke things were writ, hard to be understood  
Edmund Spenser, *The Faerie Queene*, Book 1, Canto 10, sig. I4v

This book envisions early modern English print as a fragile, fragmented material object. In this study, I will explore how the English Renaissance book was culturally coded as both a thing and a medium. Renaissance readers perceived the print book as a thing that could be broken or reassembled, as well as a visual apparatus that had the power to reflect, transform, or deceive. My approach to the hand-press-era book as a phenomenally troubling medium in its own right counters the longstanding binary of print as linear and monologic, as opposed to oral or digital media, often viewed as more hypertextual and dialogic. Early print texts often seem to be caught between sweeping narratives of declension or progression, such as Walter Ong's claim that the visual nature of print led to the death of scholastic rhetoric, or Elizabeth Eisenstein's much-cited characterization of print as an "agent of change," a harbinger of modernity. These binaries, prominent in the works of media theorists and rhetoricians such as Ong, Eisenstein, Marshall McLuhan, and Jay Bolter, still structure - and limit - how we use and discuss books in composition and literature classrooms, in popular conversations about visual media, and in our scholarship. In this study, I instead approach the early modern book as a complex visual, rhetorical, and political spectacle. I situate the culturally and intellectually problematic relationship between visual perception and knowledge in the English Renaissance as fundamental to how early print books' visual interfaces were constructed, displayed, read, perceived, and dismantled. I argue that the physical, and specifically visual, features of early modern print books expressed conflicting theories of perception and knowing.

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We may, however, hesitate to uphold Harman's ahistorical network-in-itself as an ontological solution to phenomenal problems. Harman himself employs the culturally specific, media-centric terminology of a network to describe our encounter with things. Our cultural and material experiences (in this case, digital media) constantly shape our phenomenological assumptions. In other words, material things shape how we perceive perception, even as our cultural and historical models of perception necessarily shape and colour how we approach these things: material things and our experience of them exist in a state of

recursion. Like Harman's "network" of perceptual stuff, early modern texts often described the process of perception in material terms specific to print: impressions, engravings, illustrations, and types. This book explores how such metaphors, used to describe visual and cognitive perception, in turn structured early modern readers' experiences of books and their visual features. The intellectually complex ways that print books patterned visual materials alongside textual matter could even be deemed a political act, one that transformed how people saw and perceived their world: as Jane Bennett describes in *Vibrant Matter*, "a political act not only disrupts, it disrupts in such a way as to change radically what people can 'see': it repartitions the sensible; it overthrows the regime of the perceptible".

Hence, I build upon the concept of rhetorical vision to investigate the ways that early modern books responded to — and constructed — the phenomenological crisis of visual perception. Debra Hawhee distinguishes "rhetorical vision" from the more commonly studied "visual rhetoric". Rhetorical vision, she proposes, indicates a concern for how rhetoric creates and responds to perception, whereas the term "visual rhetoric" conventionally ties rhetoric to a specific material index. Visual rhetoric has a more material basis, while rhetorical vision, as Hawhee defines it, is a way of perceiving the world through a rhetorical lens. Rhetorical vision "attends" to the "conjuring" of visual images and how they are brought to mind, and hence treats with how rhetoric affects cognition and perception, while visual rhetoric treats with the force of visual media: "put most simply, through rhetorical vision, words come to life". More broadly, as Thomas Rickert advocates, a rhetorical situation or experience may be brought into the realm of the experiential and ambient, as a rhetorical situation is defined by its location, inhabitation, and enviroing. Rickert shifts rhetoric from ontology (being) to ambience, or a "dwelling" that includes our own "affective" situation in our environs, in an agency that is diffuse. In my analysis, rhetorical vision and visual rhetoric work dialectically, within the book's status as both an object (*techne*) and an interface (*episteme*), while being surrounded by a cultural and phenomenal environ that modifies and mediates the reading experience. In other words, I attempt to draw from discussions of the book as a visual media to interrogate how book visuals constructed and called to mind different forms and ideologies of perception and cognition. *Reading by Design* investigates the following question: how do the visual media of early modern books transform, produce, or uproot structures of knowledge and perception?

## Partial Visions and Visual Rhetorics

The relationship between sight and perception was fundamentally called into question at the same historical moment that print books remediated the visual and material structures of manuscript, iconic, and oral rhetoric. As Stuart Clark has recently explored in *Vanities of the Eye*, Platonic, Aristotelian, and empirical models of sight vied with one another in a culture in which "vision was anything but objectively established or secure in its supposed relationship to 'external fact'". Physiological, diabolical, or psychological forces could undermine visual perception. Further, as Sergei Lobanov-Rostovsky claims, the Platonic "projective" model of sight was not yet passed over in favour of the Aristotelian "receptive" model. Lobanov-Rostovsky describes how, in Platonic thought, the eye projected an "inner fire, which coalesced with daylight to extend from the eye to an object of vision". Alternatively, the Aristotelian eye, made of water, receives images. In the context of readers' sensory interaction with the book as a medium, the question of whether their eyes received book images or projected their own visual perceptions onto them is important to how we explore early modern books' intersection with readers' perceptive gazes. The epistemic problem of vision is discussed at length in classical works that influenced early modern thought and culture, such as Aristotle's *De Anima* and Plato's dialogues. In a notoriously

thorny passage of *De Anima*, Aristotle claims that the eye receives form (sensory objects) without matter (meaning). The process of *phantasia*, loosely translated as imagination or fantasy, allows perception to take place without the material presence of the object. The retained image becomes hazy, shadowy, or partial.<sup>1</sup> In an Aristotelian reading process, then, the form of an object, like a book, can be grasped immediately by sight; however, the process of interpretation requires its images to become partial, fragmented, and transformed by cognitive perception.

Neo-Platonic and neo-Aristotelian phenomenologies in vogue in the early modern era had more in common with one another intellectually than the projective-versus-receptive controversy may indicate. Both exhibit a high degree of scepticism regarding the ability of the visual senses to represent truth or lead to understanding. In *Theaetetus*, Plato's Socrates demands, 'What we say a given colour is will be neither the thing which collides, nor the thing it collides with, but something which has come into being between them; something peculiar to each one. Or would you be prepared to insist that every colour appears to a dog, or any other living thing, just the way it appears to you?'

While Aristotle describes the movement from sight to perception as partial and imaginative, Plato casts doubt on the capability for sight to operate as a mode of perception at all. Plato compares the perceiving mind in *Theaetetus* to an aviary full of flying birds. These birds of knowledge swarm about at their own whim, unreliably. Socrates claims that it is possible not to have one's knowledge of that thing, but to have some other piece of knowledge instead of it. That happens when, in trying to catch some piece of knowledge or other, among those that are flying about, one misses, and gets hold of the one instead of the other ... as one might get hold of a dove instead of a pigeon.

As I will discuss at greater length in this project, early modern books often resemble this aviary. They are assembled among fragmented material pieces that surprise and confound the reader's perception. This historical attitude towards the materials of sensory perception is illustrated by Herbert's description of a "broken altar" "cemented with tears" in his iconic shape poem, "The Altar"; by Francis Quarles's description of his *Emblemes* as reflective of the patterned, mysterious hieroglyphics of creation; and by Henry Vaughan's description of "Hyeroglyphicks quite dismembred, / And broken letters scarce remembred" in *Silex Scintillans*. The partial images and fragmented materials of this book's primary texts recall Plato's description of representation in *The Republic* as the shadowy, unknowable projections of real forms to cave-dwelling prisoners.<sup>1</sup> The partial and subjective sight of Aristotle's *De Anima*, in other words, is not only partial or foggy but also deceptive in Plato's metaphors of visual perception. Early print-book visuals meditate on this sense of partial, fractured, and potentially deceptive sight. But they are not, as is the strain in Platonic and dissenting Puritan thought, necessarily anti-representational. They are instead representations that often point towards the visual construction of their own representational problems. The importance of readerly watchfulness — and a sense of formal playfulness — is a dominant ethos of early modern book visuals. Of course, each text in this study responds uniquely to a culture where iconicity and visual spectacle is both ubiquitous and ubiquitously interrogated.

Conditions of forgery and piracy rendered the book epistemically unstable as a material: as Adrian Johns asserts, book culture was "characterized by nothing so much as indeterminacy" in its variances of physical form and reader reception. Johns describes the early modern understanding of the reading process as filtered through the untrustworthy avenues of the passions and senses, such that those "who failed to control their passionate reading practices, and thereby fell prey to them, could then be

diagnosed by a series of symptoms that were likewise understood in terms of the passions". One victim of this circumstance was "Laudian scholar Peter Heylyn," whose "excessive reading engendering blindness as the "Laboratory" of his brain overheated and destroyed the crystalline humour of his eyes". Print visuals, as Johns and I examine, were important to the imaginative and perceptual faculties, yet this imaginative function caused anxiety that vision would overwhelm reason. This tension between the productive, generative features of visual reading and its potential to erase and even blind readers to truth and reason will be an ongoing thread in my investigation. Vision's changing nature in its cultural context was shaped by both the Reformation and by the inheritance of Aristotelian notions of sight that competed with more empirical understandings. Matthew Milner argues that the senses and their "misuse" were certainly feared in a Reformation context, but that Reformers were as much "shaped" by "sensory culture" at large as iconoclasm. The Reformation drew from "traditional Aristotelian theories of perception," but also reshaped and at times undermined them, further destabilizing the role of visual perception.

Early modern philosophical and cognitive theories of sight both drew from and readapted the dominant Platonic and Aristotelian models. In his *Anatomy of Melancholy*, early modern physician-philosopher Robert Burton demonstrates a widely accepted middle ground between projective and receptive theories, as manifested in a tripartite brain. Burton claims that although "there is nothing in the understanding, which was not first in the [outer] sense", the three inner senses of common sense, "phantasie," and memory act to interpret sensory data. Francis Bacon, who famously positioned books as sensory objects in his essay, "Of Studies" — "Some bookes are to bee tasted, others to bee swallowed, and some few to bee chewed and digested" — responded to these visual controversies in his *Novum Organum* and *New Atlantis*. Bacon's *Novum Organum* is credited with the formation of inductive reasoning from visual and sensory observation, a model that is predicated on an epistemologically uncomplicated stance towards sight's relationship to perception and material reality. Bacon chooses to name common obstacles to this new, objective, and clear model of reasoning from observation "idola," or idols (*Novum Organum* 79, aph. 38). This loaded term draws from early modern reformist concepts of visual idolatry, as well as from classical theories of vision. As Alistair Crombie outlines in *Science, Optics, and Music in Medieval and Early Modern Thought*, Plato, Aristotle, and Democritus believed that objects gave off "images, copies, or representations" of themselves; Democritus called these images *eidola*. Bacon's argument for induction from visual or sensory observation thus rather circularly counters the purportedly false visions or simulacra that mediate representation. Bacon more explicitly draws from Plato as he warns against "idols of the cave," a cave that "scatters and discolours the light of nature" (81, aph. 42).

Objective sight and internal prejudice, then, are oppositional in Bacon, yet sight itself is still a questionable, elusive path to knowledge. In the *New Atlantis*, Bacon creates an ideal model of specialized knowledge, Salomon's House, which serves as "the very Eye" of his utopian realm (9). Salomon's house has "Perspective Houses":

where we make Demonstration of all Lights, and Radiations: And of all Colours: And out of Things uncoloured and Transparent ... All Delusions and Deceits of the Sight ... We procure means of Seeing Objects A-farr off; As in the Heaven, and Remote places: And represent Things Near as A-farr off; And Things A-farr off as Near ... We have also Glasses and Means to see Small and Minute Bodies, perfectly and distinctly."

Mediation here comes in the form of clear glasses, telescopes, and microscopes. Mediums, in this passage, further and expand a telos-driven vision and observable knowledge. In another division, the

"Houses of Deceits of the Senses," we represent all manner of Feats of Juggling, False Apparitions, Impostures, and Illusions; And their Fallacies. And surely you will easily believe that we that have so many Things truly Natural, which induce Admiration, could in a World of Particulars deceive the Senses, if we would disguise those Things, and labour to make them more Miraculous. But we do hate all Impostures, and Lies: Insomuch as we have severely forbidden it to all our Fellows, under pain of Ignominy and Fines, that they do not shew any Natural Work or Thing, Adorned or Swelling; but only Pure as it is, and without all Affectation of Strangenesse.

Here, representational delusion and fallacy are visually represented to the fellows of Salomon's House. The terminology of "juggling" and "disguise" echo the anti-Catholic, anti-miraculous stance of English reformers, as Catholicism and the Jesuit movement often implied idolatry, deceit, and false miracles in post-Reformation polemics. Reformation politics partially explain why visual delusions need to be forbidden, yet visually represented in this New Atlantis: the anti-spectacular movement in English Protestantism necessitated its own forms of political theatre. The "purity" and unaffected nature of the Fellows' representations are both a scientific and ideological value, evoked both by Bacon's epistemologically certain inductive model and its theologically "pure" and native English Protestantism.

Salomon's House parallels the longstanding model of inquiry and pedagogy in the modern academy: one of specialization, an anti-iconic ethos that seeks to remove cultural delusions with its own form of demonstrations, and a singular focus on clarity and precision in academic standards of writing that bespeaks a simplistic relationship among reading, perception, and politics.<sup>1</sup> Ryan J. Stark observes how rhetorical theory transitioned from a model of "entelechy," or phenomenologically "enchanted" forms, to an empirical model that favoured "clarity" or simplicity above all by the end of the seventeenth century. In this empirical model, rhetoric is ideally a clear glass that transparently reveals the matter or content beyond itself — as Stanley Fish would put it, texts are here "self-consuming artifacts". This idealization of visual observation as a clear, unobtrusive path to a knowledge outside of itself can be encapsulated in the words of William Hinde, who, in the English post-Reformation context, sets the "dumbe and darke images" of stained glass, that "by their painted Coates and colours, did both darken the light of the Church, and obscure the brightnesse of the Gospell" against the "white and bright glass" that replaced it in church windows. The clear glass becomes an episteme for a content that transcends its own form, rather than the formal, visual device of stained glass, whose images and patterns endlessly capture the gaze of its onlookers.

As Rayna Kalas explores, glass itself was an important metaphor as an episteme in the late medieval and Renaissance eras, signifying "poetry and the imagination" and a material that linked macrocosm to microcosm. Glass, as discourse, was "instrument in shaping reality". Glass frames became a figure for invention, as framed glass was a representation of "created matter" (28). As Hinde's sermon and Kalas's work demonstrate, the figurative meaning of glass constantly took on new shapes throughout the Renaissance as the technological and social aspects of its making changed throughout the era. While the change from stained to clear glass in Hinde's words signifies the social transformation of the Reformation, technical changes in glass transformed its metaphorical purchase. In the fourteenth and fifteenth centuries, convex or "pennyware" mirrors made of glass were available but distorted their reflections, minimizing their images; alongside these mirrors were reflective "steel and silver" that required upkeep but held a more accurate reflection. Nevertheless, glass became a metaphor for a necessarily inaccurate reflection of microcosm to macrocosm, much as the fallen world would not accurately reflect God's creation. By 1570, however, expensive and controversial crystal glass mirrors

were imported to England and became a metaphorical reminder of vanity (108-9). Crystal versus older forms of mirrors demonstrated a conflict between an ontological mirror as a reflection of God (though imperfect) and a humanistic representation of material surroundings (108). Hence, my discussion of Caxton's 1481 *Mirroir and Description of the World* links rhetoric to metaphysics, while in chapter 4 mirrors, and the book itself, in the work of Francis Quarles become unwieldy and anxiety-ridden figures of representation.

Because of vision's multifarious and controversial nature in the English Renaissance, I explore how philosophical, scientific, and rhetorical works and ideas intersected with the concerns of my primary texts. It is impossible to discuss the changing nature of visual perception from 1485 to 1650 without including the inherited philosophical and rhetorical theories of Aristotle, Plato, Cicero, and others, or the changing technologies of vision, including glasses, mirrors, optics, telescopes. The visual text, I argue, did not exist in a vacuum but rather connected with transformations in scientific and philosophical ideology — the Platonic gaze, for instance, in my discussion of Caxton's *Mirroir* becomes a telescopic insight in Francis Quarles's *Emblemes*. Through my research into visual perception, I have discovered that scientific and philosophical controversies were threaded throughout book visuals, even to the point of intending readers to choose a particular avenue or experiential attitude towards their text. While *Reading by Design*'s primary concern is with literary and rhetorical history, its connections between philosophies of sight, scientific theories such as the makeup of the eye organ and the nature of glass prism, and textuality do not restrict it to a single field. While we maintain a disciplinary structure to our own epistemologies in the university, the path to knowing in the Renaissance, and in the texts I study, was understood to be collective and overlapping, as the ultimate goal would be to link different forms of knowledge as a microcosm for creation. In many instances, the texts themselves refer to visual controversies in science, philosophy, and rhetoric, and there would be a certain amount of critical oversight without delving into these intersections. This multidisciplinary analysis of visual reading encourages a holistic framework within which to situate problems of perception alongside book materials. This study of perception's role in the composition of texts combines areas of study and historicizes how readers would have visually encountered books; I therefore draw from classical and early modern inquiries of the nature of sight to explore this encounter.

## Glasses, Maps, and Mirrors: The Material Rhetorics of Books

Early modern visual culture's interfaces, of course, extend beyond the space of the book to the materials of daily life in the English Renaissance. As Juliet Fleming investigates in *Graffiti and the Writing Arts of Early Modern England*, writing on public walls, churches, domestic spaces, heraldry, and everyday objects created a sense of textual-visual ubiquity to the point where an empty wall signified an empty mind. While this study primarily focuses on the printed page, it traces how books' spatial features drew from parallel alterations to other visual technologies: mirrors, calendars, maps, telescopes and other optical glasses, and anatomies of the eye itself. The texts in each chapter have been chosen to illustrate how visual technologies, genres, and cognitive-perceptual functions combined in an intended interaction with a text or performance. The following chapters set these visual materials alongside the genres of the pedagogical tract, almanac, chorography, emblem book, and performance, respectively. These genres remediate rhetorical praxis from cognitive to print locations, particularly the methods of imagination and invention, memory, arrangement, and delivery. In addition, these genres, by inhabiting the space for learning and categorizing, timekeeping, spatial visualization, meditation, and spectation, call for readers



who were active viewers and perceivers of their texts and who may have integrated reading into the rhythms of everyday life.

Each genre illustrated here also forms both text and viewer into a unique inhabitation and phenomenal field. Each genre calls for a particular cognitive shift and philosophical turn as we perceive it, whether entelechy in the case of Caxton's late-medieval encyclopedia *Mirroure and Description of the World* or a never-ending process of memorialization and forgetting in the chorography *Poly-olbion*. In the case of *The Shepheardes Calender*, I argue that readers would have approached this text with the almanac form already in mind, a genre that evoked memory, prophesy, and the inscription of visual space. Francis Quarles's *Emblemes* in chapter 4 asks readers to both meditate upon and evaluate the images alongside the text, creating a sense of double vision and constant vigilance. I turn to the performance *2 Henry VI* in my final chapter, a work that references bibliographical objects and John Foxe's visually magisterial *Acts and Monuments*. This play brings both books and eyes before the eyes and minds of its audience, as it adapts Foxe's *Acts* and interrogates the nature of sight. I analyse this play as a potential adaptation, and as such one that asks viewers to question what they are seeing and to call the visual nature of books to mind as they act as theatrical spectators. These genres demonstrate how the visual elements and composition of texts set up a cognitive and perceptual relationship between reader and text that is constantly interrogated and complicated by the thematics of the works themselves. While I've included canonical texts, such as Spenser's *Shepheardes Calender* and Shakespeare's *2 Henry VI*, my inclusion of non-canonical (but at times popular) sources such as Francis Quarles's *Emblemes* and almanac books alongside interrogates connections between what might have been "everyday" reading and what might have been interpretation. It is my argument that reading and visualization in itself may have called for a certain vigilance and participation in intellectual controversies, even with genres that tend to be uncanonized. The variety of texts and genres featured in this study demonstrate how crises of visual perception underpinned a wide swathe of the reading experience in the Renaissance. The key word here is experience. While Renaissance readers certainly interpreted and actively cut up, inscribed, and catalogued their texts, I will predominantly investigate how these works set up their visual interactions with readers to both create an experience and interrogate forms of knowing. My method throughout is thus one of material epistemology and phenomenology rather than pure historical materialism or reader response. Even with a compendium of material history at our hands about early modern reading practices larger than that assembled by this study and other scholarship, we may never fully grasp how early modern readers could have literally approached these texts in their time. Therefore, this book looks to histories of visual perception as well as the visual aspects of the texts themselves to imagine the kinds of epistemic and phenomenological frameworks these books would have placed readers within.

Chapter 1 investigates how print illustrations and spatial metaphors, such as mirrors, colours, and measurements, serve to mediate reader and image, cognitive perception and perceived object, and rhetorical invention and imagination in two early illustrated pedagogical texts, William Caxton's encyclopedic *Mirroure and Description of the World* (first edition 1481) and Stephen Hawes's allegorical *Pastime of Pleasure* (Tottel edition 1555). As Herbert Grabes explores in *The Mutable Glass*, mirror or glass metaphors for books had been a particularly English tradition since the late-medieval, preprint era. Mirrors were not the clear, two-dimensional objects we picture today but were often made of bronze or similar materials and formed in a convex shape that could only provide a partial or distorted reflection. Bronze mirrors date from the classical era, and were often handheld, featuring decorative motifs, vignettes, and designs. | | The mirror as common metaphor for the book suggests reflection and refraction, mimesis and illusion. Through the symbolic language of their material images and visual

metaphors, particularly the mirror, Caxton's *Mirroure* and Hawes's *Pastime* portray pedagogy, even rhetoric itself, as problematically dependent on the subjective visual imagination, or "fantasy," of the reader.

Chapter 2 locates Spenser's *Shepherd's Calendar* (1579) and the annotated almanac genre it draws from as memory spaces. In the sixteenth century, readers used almanacs as a new, visual, and mnemonic media. Readers employed almanacs for inscription, accounting note taking, chronicling, and prognostication. As Frances Yates and Mary Carruthers famously detail, classical and early modern mnemonic practices shared a common technique: orators would often construct a memory palace or house in the mind, replete with intricately visualized rooms, cabinets, and spaces, to place ideas for later recollection. As Adam Smyth notes, annotated almanacs held specific spaces for the reader to inscribe reminders and commentaries, spaces that effectively operated as little rooms in a visual memory palace ("*Almanacs, Annotators, and Life Writings*"). Early modern calendars and almanacs hence acted as memory machines; however, they were a highly ephemeral form, as readers used, discarded, and finally forgot them at the end of the year. I argue that the *Shepherd's Calendar*, situated alongside this generic context, interrogates memory's dual prominence and ephemerality in print, particularly in its visual illustrations and layout.

In the sixteenth and early seventeenth centuries, early modern maps moved from a more ontological construction of space to an epistemological one, from a way to understand time to a means of conceiving space. Engraved print books, like those of John Selden and William Camden, widely reproduced and distributed this early modern epistemological map, which sought to establish England's topographical features and political boundaries. New surveying techniques that could geometrically divide and enclose the English landscape, alongside the emergence of engraved maps, influenced how print spaces responded to problems of vision and knowledge. Chapter 3's analysis of Michael Drayton's *Poly-olbion* (1612) demonstrates that the epistemic question of how to organize space on a map was concurrently a political problem of how to unite or subdivide the English landscape. As indicated by *Poly-olbion*'s title, the visual components of this book represent many competing "Albion" or Britain that, like the tiny figures that inhabit its regional maps, represent, contend, and point out a chaotic multiplicity of British identities. This chapter employs the concept of *aporia*, or a philosophical agon or boundary, to explore the many graphical and epistemic borders *Poly-olbion* presents to its readers: between vision and knowledge, reader and page, a unified Britain and multiple (poly) Albion. *Poly-olbion*'s *aporia* are both metaphysical and physical, displayed in its text and in its many graphical borders: maps of topographical spaces and watery rivers, elaborate page-border designs and vignettes, and the boundaries of the page itself.

Chapter 4 draws from a material history of telescopes and optical prisms to trace how the formal duplications of text and page create a sense of visual duplicity in the emblematic poetry and political rhetoric of Francis Quarles. Again, the print page reflects and even magnifies epistemic crisis. Quarles's *Emblemes* (1633) and political pamphlets set up dualistic visual and verbal structures, namely chiasmus, paradox, and mimesis. The duality between *telos* and trickery in these rhetorical and visual structures portrays sight — and the reading process itself — as potentially duplicitous, as we become lured by sensual visions and optical illusions. Quarles continues this concern with troubled vision in the rhetorical structures of his later political pamphlets. Through situating Quarles's seemingly more metaphysical emblem poems on a continuum with his representation of sight in his political works, such as *The*

Shepherds Oracle (1644) and The Whipper Whipt (1644), this chapter uncovers the interconnected nature of phenomenal and political vision troubles in Quarles's historical moment.

In the final chapter, I turn my study of the early modern book's vision-perception agon to visual performance in Shakespeare's 2 Henry VI. In 2 Henry VI, the rebel Jack Cade's famous lament — that the "skin of an innocent lamb should be made parchment? that parchment, being scribbled o'er, should undo a man?" — has been interpreted by bibliographical scholars such as Roger Chartier as an eloquent, nostalgic, and ahistorical indictment of written culture, specifically print (4.2.79-81). My analysis of 2 Henry VI's "undone" materials instead situates this moment within the play's larger context of fractured, decomposable, and broken visual ecologies: optics, print, landscapes, and the performance itself. In this chapter, I analyse moments in 2 Henry VI, such as the St Alban's "false miracle" scene, Jack Cade's debate with Lord Say, and Margaret's self-representation as an "alehouse sign," as instances of visual and material "undoing" (1.1.103). Simpcox, Cade, and Margaret of Anjou's performances act as metatheatrical — and metabibliographical — representations of visual uncertainty.

It is the aim of these chapters to reveal how previously understudied works such as annotated almanacs, illustrated, vernacular pedagogical texts, and emblems can instead become central to our understanding of rhetorical history and early modern culture, as well as the questions early print books raise about visuality as an episteme. We can trace the problem of vision and knowledge that runs through these materially complex texts as an important intellectual current in more canonized texts. Through this study, I argue that the early modern print book's visual interface and its readers dynamically engaged with one another. By connecting rhetorical and phenomenal history to how we look at early print books, we can view early modern print's visual features as more than unique decorative curiosities or concerns for collectors and bibliographers alone; instead, they are complex elements that defined the early modern book as a vibrant, unsettled, and unsettling medium. <>

**TOUCH ME NOT: A MOST RARE COMPENDIUM OF THE WHOLE MAGICAL ART** edited and translated by Hereward Tilton and Merlin Cox [Fulgur Press, 9781527228832]

A full-color facsimile of an 18th-century black-magic compendium

*Touch Me Not* is an Austrian manuscript compendium of the black magical arts, completed c. 1795. Unique and otherworldly, it evokes a realm of visceral dark magic. As the co-editor of this volume Hereward Tilton notes, the manuscript “appears at first sight to be a ‘grimoire’ or magician’s manual intended for noviciates of black magic. Psychedelic drug use, animal sacrifice, sigillary body art, masturbation fantasy and the necromantic manipulation of gallows-corpses count among the transgressive procedures it depicts. With their aid hidden treasures are wrested from guardian spirits, and the black magician’s highest ambition—an infernal transfiguration and union with the Devil—can be fulfilled.”

Hidden for decades within the Wellcome Library collection, *Touch Me Not* is published here as a full-color facsimile. The German and Latin texts have been translated by Hereward Tilton and Merlin Cox, scholars who have explored the sources for the various elements and provided copious references. Tilton provides an introduction that lays out the context for the survival of this extraordinary manuscript.

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Excerpt: 'Touch me not': a divine hand might have scrawled this prohibition upon the fruit of the tree of knowledge, a challenge no curious soul could resist. The work before you claims descent from that Edenic tree, which bore the fruit of both white and black magic (f. 36r); misleadingly entitled 'a most rare compendium of the whole magical art', the aggressively carnal spirits thronging its pages proclaim a debt to the black arts alone. As creators and manipulators of such phantasms, magicians preside over various archaic techniques for unlocking the imaginative portal to the demonic realms. Among them, psychedelic drugs hold pride of place in *A Most Rare Compendium*: amid the opium and nightshades of the witches' ointments, here we also find a little-known yet ubiquitous European analogue of the famed potion of the Amazonian shamans, ayahuasca. Erotic fantasy, too, grants access to the darker recesses of the magician's soul. Our compendium slyly tempts us to emulate Adam, who — succumbing to the vice of masturbation — spawned a horde of demons in his visionary raptures with Lilith, the mother of all succubi. Yet the chief means offered herein for transcending mundane consciousness and attaining the black magician's ultimate goal — an infernal transfiguration and union with Satan— is the voluntary cultivation of fear and repulsion. With vivid necrophilic images of horror, *A Most Rare Compendium* lures us to lonely sepulchres at the dead of night, or to gallows where the mandrake root sprouts from the semen of hanged men, there to transgress the bounds of the socially sanctioned self with animal sacrifice, the desecration of corpses and scried communion with the spirits of the dead.

Clearly, then, the purpose of titling this work *Touch Me Not* was to elicit just the opposite response from potential readers. Although rational analysis of composition and historical context might divest its transgressive content of power, it behoves us to delve into the duplicity of *A Most Rare Compendium* in order to better understand the work, its creators and their intent.

## An exceedingly curious manuscript

We do not know who owned the manuscript before 1928, when *A Most Rare Compendium* was sold to the Wellcome Library by the Viennese antiquarian bookseller V. A. Heck for 1,200 Swiss francs (48 pounds sterling). Heck's sales announcement describes it as an 'exceedingly curious' and 'artfully illustrated Höllenzwang manuscript' that 'undoubtedly' originated in Austria circa 1760, and that concerns 'the conjuring of spirits, chiefly for the purpose of treasure-hunting.

While the orthography of [A Most Rare Compendium](#) suggests that it is indeed Austrian, Heck's description is problematic for a variety of reasons.

First, the *Compendium* was created at a somewhat later date than that proposed by Heck, or indeed by Samuel Moorat, who suggested 'circa 1775' in his catalogue of Wellcome Library manuscripts. The psychedelic ruminations that open the main text of the work are derived from the Catholic theosopher Karl von Eckartshausen, who in his *Aufschlüsse zur Magie* (*Disclosures on the Subject of Magic*, 1788-92) bemoans the flashbacks caused by his careless experimentation with the art of psychedelic fumigation.' Likewise, the closing passage of our manuscript allegorizing the popular topos of the veiled statue of Isis is derived from the final volume of *Aufschlüsse zur Magie*, and the date of this volume's first publication — 1792 — provides a terminus post quem for the composition of *A Most Rare Compendium*.

Second, *A Most Rare Compendium* is not only 'most rare' - it is unique, as its creators knew full well. Our manuscript did not evolve from an earlier relative, a fact that is highly unusual for the magician's manuals now popularly known as grimoires'. While Heck interpreted the *Compendium* as a 'difficult-to-access' grimoire akin to the medieval *Clavicula Salomonis* (Key of Solomon), such manuals are typically compilations of textual fragments drawn from related (and similarly fragmentary) compilations. By contrast, our manuscript is a one-off work of artifice derived principally from printed sources that its creators had to hand; for instance, its extracts from the *Arbatel*, *Ars notoria*, Trithemius's *Liber octo quaestionum* and Agrippa's *De occulta philosophia* are all drawn from the first volume of Zetzner's 1630 edition of Agrippa's *Opera*.<sup>6</sup> Indeed, the very title of *A Most Rare Compendium* suggests its creators were trading on its (absolute) rarity, which constitutes something of the work's *raison d'être*.

Third, as an early modern German expression of the Solomonic demon-binding tradition, the *Höllenzwang* (coercion of hell) family of grimoires is principally associated with the name of Johann Georg Faust (c.1480-1540/1), Renaissance Germany's self-styled 'fount of necromancy', and with the coercion of diabolical powers for the purpose of obtaining the treasures they guard.<sup>6</sup> Yet our manuscript claims to be a 'compendium' — an epitome or abstract — of writings on nigromancy, meaning black magic in general; the theme of magical treasure-hunting is referred to explicitly in only three of the *compendium's* thirty-five illustrations and three times in the text. Besides generic methods for summoning demons — invocations, sigillary body painting, circle-casting, etc. — the text and illustrations of *A Most Rare Compendium* allude specifically to necromancy — described here as the art of summoning the dead, or of using corpses for various magical ends — and catoptromancy — described as the art of scrying with magic mirrors to communicate with the absent or dead, or to obtain sought-after objects. While these arts and methods are certainly of use in magical treasure quests, none of the print or manuscript sources of *A Most Rare Compendium* bears any clear first-hand relation to the *Höllenzwang* literature; for instance, the names and hierarchies of its demons are drawn chiefly from *The Book of the Sacred Magic of Abramelin*. Furthermore, when it comes to discussion of the diabolical pact, rather than reproducing the famed pact of Faust — such as we find it in certain *Höllenzwang* manuscripts — the opinions of the notorious witch-hunter Martin del Rio are given alongside those of the *Arbatel*.

Nevertheless, that V. A. Heck saw the *Compendium* as a *Höllenzwang* grimoire is telling, as the *Höllenzwang* textual family constitutes not only an important part of our manuscript's cultural context, but also its core conceptual inspiration. This conclusion is confirmed, first and foremost, by the *compendium's* juxtaposition of psychedelic drug use with the perils of magical treasure-hunting and the diabolical pact; as we shall see, this confluence of themes points not only to the *Höllenzwang* grimoires but also to the occasionally tragic history of their employment in the magical quest for treasure. Furthermore, magical treasure-hunting was a 'fashionable crime' running at epidemic levels in eighteenth-century Austria. The expectation that one would use the various nigromantic techniques detailed in *A Most Rare Compendium* for treasure-hunting purposes is clearly reflected in its remarks on the diabolical pact: those who have been rescued from the clutches of Satan by white magicians or priests are admonished to donate their ill-gotten hoard to the Church and the poor.

### The Perils of magical treasure-hunting

The folk beliefs that lend this particular strain of demonic magic its regional colour have pre-Christian origins. The pagan Germanic notion of vast subterranean treasures guarded by dragons persisted in medieval and early modern Christendom, as did the belief that such hoards could be gained by magically

subduing their guardians. Appearing not only as dragons but also as snakes, black dogs and spectral maidens, in the Christian popular imagination these treasure guardians were interpreted as guises of the Devil, who might be invoked and bound in the manner of an exorcism. Taking place at lonely, liminal locations — gallows, graveyards, ruined castles and churches — the binding operation was believed to be exceedingly dangerous, as the Devil would do his utmost to divert the treasure-hunter from the correct procedure.

The apparitions sent to distract magicians and lure them from their protective circles are gleefully depicted in *A Most Rare Compendium*, as are the dire consequences of failing to follow the prescribed procedure: a cock-headed, dolichophallic demon, extinguishing a lantern with its urine, drags an ill-fated treasure-hunter to his doom. Apparently dissatisfied with the illustrator's original dating of this ghastly event to 1768, a second hand has altered that year to 1668 — perhaps feeling that the original date betrayed the manuscript's relatively late composition, although neither year sits well with the title page's. While a number of errors — failing to maintain silence, for example, or turning around at a noise — might have caused the disaster shown here, the lack of a protective circle is conspicuous. The illustration is set in contrast with the preceding portrayal of a correctly performed treasure-hunting operation, here involving ritual nudity and the necromantic manipulation of a reeking corpse at the gallows. In both images the most sought-after (but by no means essential) component of the magical operation is depicted: a literate magician, who has brought a grimoire with the requisite demonic sigils and invocations to the conjuring site.

#### A Word of Supernatural Horror

The most bewitching ingredients of *A Most Rare Compendium* are, of course, its watercolour illustrations. Given the prominence of the manuscript's passage onentheogens, the suspicion naturally arises that the artist was psychedelically inspired. While this possibility cannot be ruled out, it should be noted that these illustrations all incorporate standard motifs from the medieval and Reformation representation of the diabolical realms: consider, for example, the similarities of the guardian of purgatory with Matthias Gerung's well-known satire on the Catholic priesthood, or those of our manuscript's centrepiece — the demon Dagal — with depictions of the Devil in the Florentine tradition. The undeniably arresting images of the *Compendium* have been executed by a trained and modestly talented artist, who has drawn upon Großschedel's *Calendarium naturale magicum perpetuum* — as well as his or her own imagination — in the design of the demonic sigils. Accompanying the image of Astaroth we also find a faux-cipher inscription suggestive of the illustrator's acquaintance with the cipher alphabets of Trithemius, presumably via Agrippa. Although the evidence is by no means conclusive, these purely imaginative elements feed a suspicion that the artist is a second party contracted to illustrate passages compiled by an individual moderately more conversant with the dark arts.

Although it has undoubtedly inspired readers down through the years to experiment with the archaic techniques it describes," *A Most Rare Compendium* is not a practical Höllenzwang manuscript of the sort one might pore over with farmers in the local tavern or furtively transport to a lonely vineyard hut, flowerpot andentheogens in hand. If it can indeed be considered a grimoire in the Höllenzwang tradition, then it is also a work of supernatural horror composed in the form of a Höllenzwang grimoire, and its decidedly Gothic aesthetic confirms a date of composition in the dying years of the eighteenth century. While this demystifying reading might bleed some of the transgressive thrill from the words

'Touch me not', it in no way detracts from our manuscript's value as a highly entertaining conveyor — and unique reinterpretation — of Germanic magical tradition. <>

**INTRODUCTION TO MAGIC: RITUALS AND PRACTICAL TECHNIQUES FOR THE MAGUS** Volume I by Julius Evola and the UR Group translated by Renato Del Ponte [Inner Traditions, 9780892816248]

The rites, practices, and texts collected by the mysterious UR group for the use of aspiring mages.

- Rare Hermetic texts published in English for the first time.
- Includes instructions for developing psychic and magical powers.

In 1927 Julius Evola and other leading Italian intellectuals formed the mysterious UR group. Their goal: to bring their individual egos into a state of superhuman power and awareness in which they could act "magically" on the world. Their methods: the practice of ancient Tantric and Buddhist rituals and the study of rare Hermetic texts. So successful were they that rumors spread throughout Italy of the group's power, and Mussolini himself became quite fearful of them. Now for the first time in English Introduction to Magic collects the rites, practices, and knowledge of the UR group for the use of aspiring mages.

Included in Introduction to Magic are instructions for creating an etheric double, speaking words of power, using fragrances, interacting with entities, and creating a "magical chain." Among the arcane texts translated are the Tibetan teachings of the Thunderbolt Diamond Path, the Mithraic mystery cult's "Grand Papyrus of Paris," and the Greco-Egyptian magical text De Mysteriis. Anyone who has exhausted the possibilities of the mundane world and is ready to take the steps necessary to purify the soul in the light of knowledge and the fire of dedication will find a number of expert mentors here.

**INTRODUCTION OF MAGIC, VOLUME II: THE PATH OF INITIATIC WISDOM** by Julius Evola and The UR Group, Translated by Joscelyn Godwin [Inner Traditions, 9781620557174]

Authentic initiatic practices, rituals, and wisdom collected by the UR Group

- Shares a rigorous selection of initiatory exercises, including instructions for creating the diaphanous body of the Opus magicum, establishing initiatic consciousness after death, and the construction of magical chains (the enchained awareness of initiates)
- Offers studies of mystery traditions throughout history, presenting not only the principles themselves but also witnesses to them and their continual validity today

The "Gruppo di UR" was a group of Italian esotericists who collaborated from 1927 to 1929. The purpose of this group was to study and practice ancient rituals gleaned from the mystery traditions of the world, both East and West, in order to attain a state of superhuman consciousness and power to allow them to act magically on the world. They produced a monthly journal containing techniques for spiritual realization, accounts of personal experiences, translations of ancient texts, and original essays on esoteric topics. The group included a distinguished line-up of occultists, neo-pagans, freemasons, Anthroposophists, orientalist, poets, and members of high society. The prime movers of the group were Arturo Reghini (1878-1946), a Pythagorean mathematician and reviver of a spiritual Freemasonry, and Julius Evola (1898-1974), then a young philosopher with a precocious mastery of the esoteric doctrines of East and West. Many years later, in 1971, Evola gathered these essays into three volumes.

Inner Traditions published Volume I in 2001, under the title *Introduction to Magic: Rituals and Practical Techniques for the Magus*.

This volume, the second in the series, complements the first one, yet they are not strictly sequential, and their contents can be read in any order. Volume II shares authentic initiatic wisdom and a rigorous selection of initiatory exercises, including instructions for creating the diaphanous body of the *Opus magicum*, establishing initiatic consciousness after death, and the construction of magical chains (the enchained awareness of initiates). It offers studies of mystery traditions throughout history, presenting not only the principles themselves but also witnesses to them and their continual validity today.

This series shows that the “Magic” of the UR Group meant an active and affirmative attitude toward individual development, handed down from a “primordial tradition” and discernable in alchemy, Hermetism, esoteric religious doctrines, indigenous practices, Tantra, Taoism, Buddhism, Vedanta, and the pagan mysteries of the West. Although some of the practical experiments demanded extraordinary efforts, both individual and collective, there is incalculable value here even for the less heroic, for merely reading these essays leaves a permanent mark on the reader.

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## The "Magical" Gruppo di UR in Its Historical and Esoteric Context by Hans Thomas Hakl

At last the second volume of writings by the Gruppo di UR—or UR Group, as we shall henceforth refer to it—has been completely translated. The first volume immediately met with great interest, because of the high quality of its contents, but at the same time it raised a whole series of questions: From what tradition did the UR Group derive its extraordinary knowledge? What was its goal? Who were the leading figures, and what is known about them? Why did the group only last for three years? Are (or were) there organizations that descended from it, perhaps still working to this day?

Professor Renato del Ponte, in his preface to the first volume, has already described the essentials of the group, and provided many answers that we will take for granted here. His work was the very first to shed a brighter light on the background of the UR Group. Even in Italy there had been only a few writings, aside from Julius Evola's own memoir, that discussed the subject up to a point, and they did so much less thoroughly. Del Ponte's expanded essay appeared in Italian in 1989, and assumed its final form in a book published in 1994.

His investigation, however, focused only on the UR Group itself, not on the traditional strands preceding it or on the post-1929 groups that claimed a connection to it. Therefore, we will specifically address such matters here. Since these strands and groups span several centuries, we can only provide an overview of them, like a series of snapshots. But there is quite a comprehensive literature for readers

of Italian, if not always easily accessible, which treats the various aspects of this history in detail. The only exception concerns the post-1929 groups, about which little has been published up to now.

### Prehistory

Here we will concentrate on the "Italian" component, leaving aside the thread that goes back to Rudolf Steiner's Anthroposophy. Much has been written on the history of Anthroposophy and Theosophy, which has nothing directly to do with UR. Nor will we treat the era before the eighteenth century, since specific derivations from Pythagoras, for example via Neoplatonism and the Renaissance, are practically impossible to pin down historically. This does not mean, however, that we deny the esoteric and/or intellectual connections that reach back to these earlier times—quite the contrary.

Instead we will begin with a central figure, who, together with the dubiously renowned Cagliostro (Giuseppe Balsamo, 1743/49-1795), was presumably the modern starting point of magical-alchemical efforts in Italy. This is Raimondo di Sangro, Prince of San Severo and Duke of Torremaggiore (1710-1771), a multifaceted personality around whom countless legends swirled, and continue to do so. He was the first regular Grand Master of Neapolitan Freemasonry, and united all the local lodges under his leadership. He was intensively occupied with magical and alchemical experiments, which finally led to his excommunication by the pope.

The enigmatic nature of Raimondo di Sangro's life continued right up to his death, because he died under mysterious circumstances, probably from poisoning, reputedly caused by his own alchemical experiments.<sup>1</sup> Massimo Introvigne assumes that Cagliostro, who was living in Naples at the time and certainly associated with the prince, bestowed on him not only the more or less public "Egyptian" degrees of initiation, but also secret ones, the so-called Arcana Arcanorum (Secret of Secrets). These presumably contained a sort of "inner alchemy" for the construction of a "glorious body" or "resurrection body," hence for the achievement of immortality.

The so-called Egyptian Rites later enjoyed wide distribution, right up to the most well-known modern magical order, the Hermetic Order of the Golden Dawn; this leads one to suspect a common descent from the Gold and Rose Cross. There are even visible influences in the "Egyptian" lodge of Anthroposophical leanings in Hamburg, called Zu den drei Rosen an der Elbe (At the three roses on the river Elbe). Theosophy, too, had an "Egyptian Rite" founded by Charles Leadbeater; see Introvigne, *La sfida magica*, 110-15, and also Carlo Gentile, *Il mistero di Cagliostro e il sistema "egiziano"* (Foggia: Bastogi, 1980), and Serge Caillet, *Arcanes & Rituels de la Maçonnerie Egyptienne* (Paris: Trédaniel, 1994).

In 1983, after a long search, Professor Clara Miccinelli discovered in a house in Naples a locked chest containing Raimondo di Sangro's "Testament," along with a medallion of him; it also contained several writings, including prophecies, and objects that he had owned.<sup>2</sup> A magnificent temple with rich symbolism is located near the di Sangros' house: it had once been the site of Raimondo di Sangro's devotions, and also of his laboratory. It can still be visited and is today one of the most important museums of Naples, containing many artistic treasures.

From Naples, a line of tradition leads to France, settling in the purely Masonic "Egyptian Rite of Misraim and Memphis." A second line, more interesting to us, leads to Baron Nicola Giuseppe Spedalieri, who had a copious correspondence with the famous French occultist Éliphas Lévi:<sup>3</sup> also to the advocate Giustiniano Lebano and to Pasquale de Servis. Giustiniano Lebano (1832-1909) was an officer in regular

Masonry (the "Grand Orient"), a member of the Egyptian Rites united under the Italian revolutionary hero Garibaldi, and was also active in the Theosophical Society. He received occultists from all over Europe, and collected a comprehensive library.

A cholera epidemic tragically took the lives of Lebano's four sons, which sent his wife into a state of mental instability. During a depressive crisis, and presumably to atone for her husband's magical activity, she set fire to herself and died, deliberately destroying a large quantity of magical manuscripts and documents in the process.

In any event, Lebano must have been an important figure in the occult milieu, otherwise the extremely elitist "Ottaviano" would not have referred to him as such in a famous letter to the Kremmerzian periodical *Commentarium*, even taking issue with the famous magus Giuliano Kremmerz in this context. This Ottaviano was a personality who had a decisive influence over the magical orders of his time. The pseudonym most likely concealed Leone Caetani, Prince of Teano and later Duke of Sermoneta (1869-1935), whose forbears included Pope Boniface VIII. Important Italian esotericists think that he was the famous "Ekatlos," who authored a widely discussed article titled "The 'Great Track'—the Stage and the Wings" in volume III of the UR papers.' Other equally important esotericists identify Ekatlos with a female follower of Giuliano Kremmerz.

Renato del Ponte has already explained the importance of this "Ekatlos" in his historical-critical preface to the first volume of the UR papers: the intention was nothing less than to bring about a resurrection of the ancient Roman Empire, with all its sacrality, in the twentieth century. Rites were performed day after day in the attempt to influence incipient Fascism in this direction, and especially Mussolini, who was far from averse to such ideas. But it soon became clear that this attempt must fail in the face of Fascist *realpolitik*. Instead of putting himself under the protection of the ancient Roman gods, Mussolini signed the Lateran Accords with the mighty Catholic Church.

A woman who had participated in these magical rites had already prophesied to Mussolini in 1919, when the first Fascist combat groups had just been formed, that he would become (Roman) "Consul." In 1923, when Mussolini was in fact head of the government, the same person approached him again and handed him a lictor's bundle of rods with an antique bronze Etruscan ax, which had been obtained in a mysterious way. In ancient Rome, the lictors' bundles were the symbol of the high magistracy. Mussolini was thoroughly familiar with this symbolism, and had "passionately" supported the performance of a mystery play on the sacred origins of Rome. This is even known from a surviving letter of his.

Leone Caetani was a famous orientalist and Islamicist, whose writings included the ten-volume *Annals of Islam*. In 1894 he had visited the notorious Yezidis, which would later cause him to be suspected of Satanism.<sup>2</sup> At the same time he was a representative of the Socialist Party in Rome, and thus had easy access to Mussolini, who had originally also been member of this party. With the aforementioned Giustiniano Lebano and Pasquale de Servis, Caetani was a member of the "Egyptian Order," which represented the innermost circle of the traditional line supposedly going back to the Prince of San Severo and Cagliostro. Caetani's central position is clear from this. He had a decisive influence on the Egyptian Order, and also on Giuliano Kremmerz, to whom we will return, and likewise on the latter's initiatic group of Myriam (or Miriam).

### Giuliano Kremmerz, Arturo Reghini, and their Groups

Around the turn of the century, Pasquale de Servis lived in Portici, near Naples, in the house of Giuliano Kremmerz's mother. The birth name of Kremmerz (also written Kremm-Erz) was Ciro Formisano (1861-1930). From his earliest childhood he had thus been acquainted with a man who possessed ancient secret knowledge. Kremmerz also came into contact with Lebano and Caetani. After a few years spent abroad—having become rich through stock-market speculations, as Daffi confirms—he rapidly published a series of important esoteric periodicals, including the abovementioned *Commentarium*.

In 1896 or slightly earlier, he founded the Fr+ Tm+ di Miriam (or Myriam), the Therapeutic Magical Fraternity of Miriam, referring to the Egyptian Isis priestesses of antiquity. Its exclusive purpose was the healing or alleviation of illnesses. This was attempted through magnetic processes, accompanied by ritual prayers and calls to angels, ancient gods, and various daimons (in the positive sense). It is hardly surprising that Myriam arose under the explicit protection of the "Great Egyptian Orient," which in turn traced back to the Egyptian Order, mentioned above in connection with Caetani, Lebano, and de Servis.

It is not entirely clear why Kremmerz moved to the Côte d'Azur, while most of his students were in Bari and Rome. Perhaps it was because of his son's sickness, or possibly due to legal difficulties caused by his irregular paramedical activity. He died in 1930 in Beausoleil, France. Before his death, his secretary had several forebodings and monitory dreams.

There immediately ensued the first split of the fraternity, through the director of the Myriam academy in Naples. Despite difficulties during the Fascist period—for Mussolini had prohibited all Masonic and quasi-Masonic associations—several academies continued. The Roman one, after a series of quarrels and "astral" instructions from the "Superiors," came under the direction of Vinci Verginelli (died 1987). Verginelli was also an important collector of alchemical treatises. His collection has been assimilated with that of the famous composer Nino Rota, who also belonged to this esoteric circle: among other things, Rota wrote the music for all the familiar Fellini films, and also for the Mafia film *The Godfather* and for Zeffirelli's *Romeo and Juliet*. Nino Rota owned about 450 of the most beautiful and the rarest alchemical manuscripts, and with this acquisition his collection became one of the most important in the world of such material. In 1985 he donated it to the Biblioteca dell'Accademia Nazionale dei Lincei in Rome. The group in Rome formerly led by Verginelli seems to have had a close relationship with the late Florentine publisher Bruno Nardini. Meetings following certain principles of the Myriam fraternity were also held in Florence.

Marco Daffi (pseudonym of Count Libero Ricciardelli) led another somewhat heterodox Kremmerz group and published several texts based on the Myriam material. Before his death he handed on the most important ritual to Giammaria Gonella, a lawyer from Genoa. The latter published supplementary material with Kemi-Hathor, based in Lainate, near Milan, where an alchemical periodical appeared, likewise named Kemi Hathor.

Giammaria Gonella, for his part, founded the *Corpo dei Pari* (Body of Peers), another rather heterodox group based on Myriam's principles but, as the name indicates, one without a hierarchical structure. At the end of the 1960s and beginning of the 1970s, it posted its proclamations on the house walls of Genoa, in the style of the Rosicrucian manifestos over three centuries earlier. In 1978 the internal teachings and more detailed documentation about this group, which never numbered more than twelve, were published by the members themselves. It is interesting that some of the principles thus published concerned "operations with two vessels," that is, instructions for sexual magic.

The Order of Mantos, which had an even more secret and aristocratic structure, should certainly be listed as a later Kremmerzian association, though it was not a direct descendant of the original lineage. In addition to the Order of Mantos, there is a host of larger or smaller groups, especially in southern Italy, of which some continue ritual and magical work to this day. One of them, the Schola Philosophica Hermetica Classica Italica, Fratellanza Terapeutico-Magica di Miriam (S.P.H.C.I. Fr+ Tm+ di Miriam), under its president Anna Maria Piscitelli, claims to be the only true successor of the Kremmerzian heritage. This claim is rejected by other Kremmerzian associations.

There is also a Christian variation of these initiations, founded by Count Alberti di Catenaia (pseudonym Erim) whose student was Paolo Virio. Virio's teachings are easily accessible, since many of his books are still available and are continually being reissued.

A branch in France is also worth mentioning: the Souverain et Hermétique Ordre d'Atoum (Sovereign and Hermetic order of Atoum), whose teachings are mostly represented in the work of Jean-Pierre Giudicelli, Count of Cressac-Bachelerie. Their center of gravity lies in "inner" alchemy, which Giudicelli connects closely with Chinese alchemy. He repeatedly refers to the Arcana Arcanorum. It is remarkable that in all these Kremmerzian lodges, orders, and so forth there are multiple personal intersections and connections with the Masonry of Misraim and Memphis. Some of their high degrees are even supposed to possess the Arcana Arcanorum. There are similar intersections with certain Martinist currents.

In 1987 there suddenly appeared a tiny numbered edition of internal writings of Myriam and the Osiridian Egyptian Order, which brought to light mostly sexual magical rituals and practices of these groups that had hitherto been entirely unknown. These were published by the Milan group Prometeo-Agape, led by Paolo Fogagnolo, who was a member of the communist Red Brigade. An explosion followed: there were rumors of betrayal, theft, and so forth, and it must have led to the dissolution of some Kremmerzian groups. Why were there such dramatic consequences? It was because these writings disclosed that, besides the "Isis" teachings, which were purely concerned with healing the sick, there was an "Osiris" magic that consisted of certain sexual magical practices, although these were only conducted in a few, very restricted gatherings. They also told of techniques for separating the "solar" part from the physical body, the construction of a "glorious body," and even the appropriation of another person's body by the "soul" of an initiate or by a purely spiritual being. In other words, here was everything that allowed the group's opponents to accuse it of the blackest magic. The documents published by Prometeo-Agape are mostly concerned with the organization associated with the C.E.U.R. (Casa Editrice Universale di Roma),<sup>34</sup> which, for its part, developed out of the A.N.K.H. Lodge (Accademia Neo-Kremmerziana Hermetica); they do not seem to apply to all Kremmerzian associations.

It is not known how far back such practices go. Introvigne writes, however, that they must be closely connected with the Arcana Arcanorum already mentioned by Cagliostro. The persons responsible for publishing the strictly internal documents (Prometeo-Agape and "Alexandre de Dánaan"), give as their reason for doing so a desire to warn against the anti-Christian aims contained in them. It is impossible to know whether this was, in fact, the real motivation, or whether it had more to do with internal quarrels between competing groups of the order.

Nor can one tell how far "Abraxa" (Ercole Quadrelli), a member of both the UR Group and the Kremmerzian movement, was initiated into these practices. In any case, Quadrelli's approach to sexual magic seems different, as his essay in this volume shows. He was apparently not concerned with a

"physical" immortality, which is the aim of the practices mentioned, but rather with access to transcendence. On the other hand, access to transcendence is also the basis for immortality.

A further traditionalist current in the UR Group was centered around Dr. Arturo Reghini (1878-1946), though his collaboration ended after only two years. Along with Kremmerz, Reghini was one of the most outstanding figures of Italian esotericism in the twentieth century. It was he who introduced Julius Evola, the leader of the UR Group, to the founder of the "integral tradition," René Guénon, and he also helped to shape Evola's early political views.

Reghini saw himself in the line of Pythagoras, Dante, and Machiavelli, as well as Napoleon (who, as a Corsican, Reghini considered to be Italian), and the Masonic founders of Italian unification, Giuseppe Mazzini and Giuseppe Garibaldi.<sup>37</sup> Reghini belongs, with Decio Calvari, to the founders of the Italian Theosophical Society; he was a high-degree Mason, and apparently admitted Aleister Crowley in 1913 as an honorary member of the Rito Filosofico Italiano, with which Reghini was affiliated. His most important master and friend was Amedeo Armentano (1886-1966), who among other things was the owner of the famous stone tower in Scalea, where Reghini performed so many magical rituals, and which he also mentions in this volume.

Reghini's periodicals *Atanór* (1924) and *Ignis* (1925) could qualify as actual precursors to the UR publications translated here, with the difference, however, that in the framework of UR so-called "chains" were established that worked with ritual magic, even if not all the members did participate. Reghini wrote very important essays for UR under the pseudonym of Pietro Negri. Furthermore, he was active in the revival of Pythagorean number mysticism, and in continuing Gabriele Rossetti's researches on the esoteric teachings of the Cathars and the Fedeli d'Amore, as one of his essays in this volume demonstrates.

Like Evola and Caetani, Reghini wanted to influence Fascism toward a reconstruction of the sacral imperial tradition of Rome, and he also expressed this in his publications. However, he was extremely vehement, even offensive, in his choice of words, which once even prompted Mussolini to respond (under a pseudonym). The very fact that Mussolini, as head of state, felt moved to answer an attack in a journal that carried no political weight whatsoever and was only aimed at a tiny, specialized readership, is evidence enough of his basically positive attitude toward ancient Rome. On the other hand, as we now know, Mussolini obstructed such pagan sacral-imperial plans not only by allying himself with the Catholic Church through a concordat, but also through a law targeting secret societies of one sort or another, and Freemasonry especially. Yet it was with the latter's help that Reghini thought he could further his plans, which shows the ambiguity of the relationship between Fascism and Freemasonry.

These Masonic views, together with a certain incompatibility between two extremely self-willed characters, were the cause of the schism between Evola and Reghini in the UR Group. Evola accused Reghini of misusing UR for his own Masonic ends, and Reghini countered with the charge that Evola wanted to censor all his contributions in an intolerable fashion. This came to a head with Reghini's claim that Evola's book *Imperialismo Pagano*, published in 1928, had stolen both title and contents from him, which Evola naturally denied with equal vehemence. The quarrel escalated and even led to legal proceedings, although these did not amount to anything.

Finally, in 1929, Reghini failed in his attempt to revive his former journal *Ignis* as a polemical vehicle against UR, following the first issue (nearly the entire contents of which was aimed at attacking Evola).

His most important student, the magically very gifted Giulio Parise (pseudonym "Luce"), quit UR together with Reghini. In his autobiography, Evola himself writes that people connected with Masonry tried to wrest the leadership of UR from him. The historian Giovanni Vannoni, in his work on Masonry, Fascism and the Catholic Church, seems to confirm Evola's position. Reghini, however, was badly hurt after all these blows, and finally retreated to the province of Emilia as a mathematics teacher. His work first found successors in Giulio Parise, already mentioned, and later in the periodical *Il Ghibellino* (Messina, 1979-1982). Reghini's influence is also evident in the periodical *Hygieia* in Reggio di Calabria, connected with the *Associazione Pitagorica*, which in 1984 arose under the leadership of Gennaro d'Uva, assisted by Sebastiano Recupero, who sadly died of cancer at a young age. In 1990, after a sixty-year "interval," there came an astonishing revival and continuation of *Ignis* under the direction of Roberto Sestito (who had previously been the editor responsible for the contents of *Hygieia*) and the granddaughter of Amedeo Armentano, Emirene. Unfortunately, this initiative ended in 1992 after only six issues. Unpleasant rumors ensued. The last attempt in this direction was the Roman periodical *Politica Romana*, which published ten issues from 1998-2018.

The salient characteristic of this Pythagorean "Italic school" is its polemical stance toward the purely "Roman" line, to which we will return. This is especially evident in its emphasis on the Greek and Etruscan elements, as well as its rejection of the excessive Germanic influence, blamed chiefly on Evola. This polemic already began in *Il Ghibellino* (nos. 4, 5, and 6) and reached an intellectual high point in Piero Fenili's article about "Evola's Errors." There, with rich documentation and some justification, Evola is accused of having viewed the Germanic and German element in too exclusively positive a fashion.

#### Recent Research on the UR Group

Since Renato del Ponte's 1985 introduction to the first volume of the UR writings, research into the individual members has naturally progressed, and some of it is worth mentioning here.

I would start with the writing of Guido de Giorgio (pseudonym "Havismat," 1890-1957).<sup>47</sup> Not only did Evola admit to the great influence that de Giorgio had on him, but Guénon also writes in a letter (see footnote) that no one but de Giorgio could treat Evola as he did, and expect him to take the criticism seriously.

After his philosophy studies, de Giorgio went to Tunisia as a teacher, and there became acquainted with Sufism. He encountered Guénon right after the First World War, and the two men developed a close friendship. He returned to Italy, married a second time, and worked as professor at a liceo in Piedmont. Later he retired to the Piedmontese Alps and lived in an abandoned presbytery as a hermit and, in Evola's words, a "wild initiate." De Giorgio tried to combine the Roman tradition with Christianity and Vedanta, and included some Islamic influences as well. His teachings, only published after his death, address not the intellect but much deeper spiritual centers. There are examples of this in the present volume.

Since the publication of the first volume, it has been discovered that the anonymous article "Le message de l'étoile polaire" (The Message of the Pole Star), originally published in French, was, astonishingly enough, written by the Russian-Polish-French author and occultist Maria de Naglowska, who led an occult group in Paris during the 1930s and became known for her teachings on sexual magic. However, much of her occult "fame" rests on her translation of the notorious *Magia Sexualis* of P. B. Randolph (though whether at least part of it is written by her is unstated). Naglowska had to move from country

to country; in the 1920s she lived in Rome, where she got to know Evola and very likely had an affair with him.

An even greater surprise was that the "father" of Italian psychoanalysis, Professor Emilio Servadio, who was a cousin of the Nobel Prize—winning physicist Emilio Segré, also worked with both UR and KRUR. He used the pseudonyms "ES" and probably "APRO." By his own account, he helped Evola with translations from English, among other things, but did not take part in the magical rituals. He was able, however, to report that the inner working circle of the UR Group did not number more than twelve to fifteen persons.

In June 1994, at a commemoration of the twentieth anniversary of Evola's death, Servadio spoke movingly of his long friendship with Evola, and this was even reported in the Italian national newspapers. Servadio had suffered badly in the later Fascist period from the racial laws (his sister had died in Auschwitz). Unfortunately, he himself died shortly after this appearance in Rome. A very interesting testimony was published by Emilio Servadio in the newspaper *Il popolo di Lombardia* (28 April 1928), describing his first encounter with Evola and how the latter's magical reputation had literally terrified him beforehand.

Domenico Rudatis (pseudonym "RUD"; born 1898) died in New York in 1994; he was a friend of the mountaineer Reinhold Messner and coauthor of accounts of the formidable "Sixth Grade" of Alpine climbing.

Corallo Reginelli (pseudonym "Taurulus"; born 1905) was another member of the original UR Group. We know a little more about him, for example, that he wrote several articles (under the pseudonyms of "C. R. Alone" and "C. E. Zero"), especially in *Vie della Tradizione* and *Cittadella*, which bear witness to his continued esoteric involvement. During the 2017 Naples conference a hitherto unknown recorded interview with Reginelli was played to the public, showing his dissent with Evola. There is also an article about Reginelli on the Internet, published by the Zen practitioner Leonardo Alfolsi.

"Otokar Brezina," who contributed one essay to this volume without actually being a member of UR, is the pseudonym of the Czech poet Václav Jevavý, born in 1868 in southern Bohemia. He lived as a teacher in a small Moravian town. In addition to a collection of philosophical essays, he mainly published small volumes of his lyric poetry. In his poems he unites the style of Symbolism with a deeply mystical inclination.

A detail that seems to have been overlooked until now is that Gustav Meyrink, whom Evola greatly valued and whose work he cited extensively in vol. I, mentions UR in his 1921 novel *The White Dominican*: "He who has become the treetop and consciously carries the root 'Ur' in himself, enters consciously into this society (of those—as he says—who have crossed the boundary) through experience of the Mystery known as `liberation with corpse and sword.— This is a clear allusion to the Taoist practice of fully conscious transition from life to immortality, in which the physical body disappears and a sword remains in its place. It represents the culminating sign of the Taoist initiate and is also the aim of the UR initiations. It is especially interesting that Evola himself translated this novel by Meyrink into Italian in 1944, and wrote an expert introduction to it. Curiously enough, the Italian version leaves out the word "Ur."

We cannot pass judgment on the report by Jean Parvulesco, the Rumanian-French author well known in occult circles, that he had in his hands an extraordinary unsigned manuscript from the innermost circles



of UR. Parvulesco hints in enigmatic words that the UR Group and Evola worked under higher "approval," by which he seems to mean a spiritual leader. He even speaks of Evola's "occult mission."

### Ur-Inspired Groups After 1930

After the UR Group had ceased its activity in 1929, and Evola was turning more and more to the political field, there was no direct continuation of magical-initiatic activity. Evola himself has confirmed this. However, in a very informative article in *La loggia*, the official bulletin of the Italian Federation of Freemasons, a person writing as "Tergestum" affirms that a friend of his, "F. C.," joined UR in 1935 in Rome. The group was led by Arturo Reghini. "F. C." had obtained the address from a man to whom Evola had personally referred him.

After the dissolution of the UR Group, Evola did receive repeated requests, especially from younger persons, to found a new order that would work traditionally and ritually. While he declined to do so, he did prepare guidelines for it. Interestingly, he suggested it be called the "Order of the Iron Crown," thus connecting it to the order of the same name which had been first founded by Napoleon in 1805, and later reestablished by the Habsburg Emperor Franz I on January 1, 1816. The iron crown is supposed to go back to Constantine the Great, and is preserved in the cathedral of Monza.

The goal of the Order of the Iron Crown is initiatic in nature and therefore possesses both an outer and an inner aspect. The inner circle is divided into three degrees. The order as a whole is led by a seven-person council of Masters, with a Grand Master. It is unknown whether there was ever an attempt to put these principles into practice, though rumors have circulated to that effect.

Within the predominantly political association Ordine Nuovo (New Order), which also looked to Evola for inspiration, at the end of the 1960s a small subgroup formed that again intended to undertake ceremonial magical work in "chains," based on the prescriptions of UR. It called itself the Gruppo dei Dioscuri (Group of the Dioscuri, "Zeus's sons"), devoted itself to magical practices and rituals, and soon spread from Rome to independent filiations in Naples and Messina. Among others, Evola's personal physician, Dr. Placido Procesi, is said to have been behind the Roman foundation. Four brochures were published, but these are fairly uninformative. In the periodical *Europae Imperium*, which was closely associated with other Evolian circles, there were soon polemics both for and against the value of this initiative, in which Renato del Ponte expressed a negative judgment. It is noteworthy in this context that the cover of *Europae Imperium* features the Ur-rune.

In any case, not all the members of the Dioscuri Group seem to have withstood the energies aroused by the rituals. This led to severe internal quarrels, and even to members committing suicide by jumping out of windows and inhaling automobile exhaust. The Roman group, at least, was finished by 1975. In Messina, however, where the late director of the Roman traditionalist monthly *Cittadella*, Professor Salvatore Ruta, is said to have been a member, they apparently continued working ritually until the mid-1980s. In 1984 there grew out of this the Centro Studi Tradizionali Arx, whose outward activity was the aforementioned periodical *Cittadella*. A very small group within Arx must have been again active in magical ritual practices, which basically stemmed from the UR writings and from Kremmerzian instructions. In 1975, also in Messina, there appeared the purely internal text *La Via Romana degli Dei* (The Roman Way to the Gods), which contains magical exercises and meditation techniques, and is connected to the Dioscuri. It was published by a so-called Institute for Higher Operative Psychology.

In the traditionalist periodical *Convivium*, a former member of the Dioscuri Group, L. Moretti, reports about the breathing practices that he followed there, and warns individuals and groups against emulating them. In the third volume of the UR writings, not yet translated, "Taurulus" also writes about some negative effects and even an accident in the context of his magical experiments. It is here that natural growth is necessary and excessive zeal harmful. We cannot tell how long the Delta Lodge, connected with the publishing house Arktos in Carmagnola, was magically active. In any case, it too belonged to circles influenced by UR and Evola.

The groups that have been mentioned here also show a repeated intersection with the Masonry of Misraim and Memphis, as also with the Martinists, whose best-known leaders were Gastone Ventura and Francesco Brunelli. Gaspare Canizzo, who in 1971 was already publishing the extremely interesting magical-traditionalist periodical *Vie della Tradizione* in Palermo, also belonged to this group of ritually working Martinists, which possesses an impressive temple in that city.

The axis of UR—Dioscuri—Arx has already provided a path to follow for many traditionalists today who feel allegiance to the ideals of UR: it is the so-called "Roman" way, in contrast to the "Pythagorean" or "Italic" school described above. Those who feel called to it have mostly oriented themselves around three periodicals: *Arthos*, directed by Renato del Ponte; the *Roman Mos Maiorum* (unfortunately now defunct); and *Cittadella*, originally headed by Salvatore Ruta and later continued by Sandro Consolato (but also now defunct); as well as in three study groups dispersed around Italy. However, these groups are less concerned with "magical" teachings and are mainly focused on the ceremonial and ritual restoration of a sacred unity with the Roman tradition.

Most prominent among the groups active today is the *Movimento Tradizionale Romano* (formerly *Movimento Tradizionalista Romano*), the Roman Traditional Movement, which is divided into separate "families" (*gentes*, presently five in all of Italy) and led by a princeps and a promagister. Members try to live according to the ancient Roman calendar and the sacred prescriptions that it contains for days and festivals. Contrary to what one might assume, the orientation of the MTR is principally monotheistic: Janus is regarded as the *deus deorum* (God of Gods) and the other gods are simply further expressions of the highest unity. The MTR celebrates the great milestones of life such as birth, marriage, and death, following the ancient rites. For instance, it even performs the ancient Roman marriage through the rite of *confarreatio*, which implies absolute indissolubility. This movement regards as its forerunners the poet Ugo Foscolo, the archaeologist Giacomo Boni, and the eminent historian of religion Angelo Brelich. It even acknowledges non-Italians, such as the German classical historian Franz Altheim.

The *Associazione Romània Quirites*, led by Loris Viola in Forlì, which issues an internal newsletter *Saturnia Regna*, goes a step further. The members have banded together and live in a common household that strictly observes ancient Roman regulations regarding eating, clothing, and relations between the sexes, so that they stand in complete opposition to the modern world.

The international reader may be surprised at the nature of these multiple magical and ceremonial "scenes" active in Italy today, since practically nothing of the kind is known outside Italy. Perhaps even more surprising is the fact that these groups chiefly involve the intellectual and social upper class. One of the reasons for this must lie in the strong position of the Catholic Church in Italy, which with its time-honored rituals replete with mysteries (at least until the recent liturgical reform) has created the foundation for a deep appreciation of ceremony and symbolism.

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Hans Thomas Hakl received a Doctor of Law degree in 1970 and, together with partners, created a large international trading company as well as the publishing house Ansata in Switzerland, which specializes in the esoteric. After having sold his shares in both companies in 1996, he founded and is still editor of Gnostika, the most widely acknowledged German publication dealing with esotericism in an academic way. Hakl has collaborated in several international journals and dictionaries on the occult and religion and is the author of *Unknown Sources: National Socialism and the Occult* and *Eranos: An Alternative Intellectual History of the Twentieth Century*. His writings have been translated into English, French, Italian, Czech, and Russian. <>

**ESOTERIC FREEMASONRY: RITUALS & PRACTICES FOR A DEEPER UNDERSTANDING** by Jean-Louis de Biasi [Llewellyn Publications, 9780738748481]

The Sacred Realm of Freemasonry Awaits

Esoteric Freemasonry takes you deep into the mystical side of this fascinating secret society and shows you how to carry out the most powerful practices. Learn how to enter your inner temple and accomplish the ancient mysteries. Discover the compelling links to Egyptian Freemasonry as you progress through the degrees of initiation. Using this guide's profound rituals and its exploration of Masonic tradition, you'll take the next step in your spiritual practice and improve all realms of life.

As a leading Mason in Europe, Jean-Louis de Biasi was appointed Grand Officer after successfully restoring the esoteric and Egyptian degrees in one of the most important French Masonic groups, the Grand Orient of France. With access to highly restricted teachings, Jean-Louis is a foremost authority on little-known rituals and practices that can be used by lodges and individually.

Freemasonry is an ancient and powerful initiatic organization, with both public and esoteric doctrines. The inner teachings and practices of the esoteric tradition are indispensable for any serious student of this often misunderstood fellowship.

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## The roots of Freemasonry by Chic Cicero and Sandra Tabatha Cicero

The roots of Freemasonry are swathed in mystery and speculation. Over the last three centuries, Masonic authors have advanced numerous conjectures into Masonry's beginnings, suggesting that the answer lies in ancient Egypt, Rome, the Knights Templar, and Solomon's Temple. Contemporary literature overflows with Masonic intrigue, conspiracy theories, and whodunits. Current research indicates that the origins of Freemasonry are likely to be found among the medieval stonemason's guilds of Scotland and England. Nevertheless, Freemasonry has substantial historical ties with esotericism, providing the basic structure for most of the occult groups that followed it. The entire lodge framework, officers, degree system, ceremonial patterning and floor work, symbolism, secret passwords and handshakes, signs and knocks, grade initiations, ritual drama reenactment, and sometimes even the exact wording of certain speeches in Freemasonry have all been adopted by esoteric and occult groups of the modern era.

Due to increased interest in all things Masonic, many new lodges formed during the latter part of the 1800s. According to Masonic historian S. Brent Morris, more than 150 new fraternal organizations were formed in the USA from 1885 to 1900, and by 1920 half of America's adult population—thirty million people—were members of a least one of the 800 or so "secret" fraternities that were embedded in the fabric of the country's social life.

Outside of a brief resurgence here and there, membership in most American Masonic groups began a slow drop after 1930, a decline that continues to this day. The "graying" of the lodge membership is an inescapable fact not lost on those who love Freemasonry. Masonic newsletters are full of essays decrying the wane in membership and giving ideas on how to get young people, particularly young men, interested in Masonry again. Many of these articles bemoan the current times we live in, wherein young men have far too many modern distractions and time-intensive responsibilities that keep them from joining the lodge. The usual remedies proposed in these essays stress that Masonic meetings should be made more interesting, more family events and dinners should be planned, networking and communications between the brothers should be encouraged, and more attempts at community outreach should be proffered. While such efforts may bring in a few more members, they do not begin to address what we feel is the primary problem: many young men (and women!) who seek out Freemasonry today do so because they are interested in the esoteric side of Masonry.

We've heard the same story so many times we've lost count: an eager young man asks about joining the Freemasons because he wants to learn about esotericism, only to be discouraged by an older Mason to such an extent that the light of enthusiasm slowly but clearly drains out of his eyes and he never returns to the lodge. Once even we were told by a high-ranking Mason to "stay away from that Qabalah stuff." While philanthropy and social improvement are unquestionably worthy goals for many Masons, others yearn for something more; they seek further Light in the form of the ancient mysteries, theurgy, hermetic knowledge, and an increase in psychic awareness. Luckily, a few Masonic lodges here and there are returning to their arcane roots and making the lodge a welcoming place for esoteric thought and

practice. As a result, some of those eager young men are staying in lodges that are more accommodating to the mystical Mason.

Jean-Louis de Biasi's book *Esoteric Freemasonry: Rituals & Practices for a Deeper Understanding* could not have come at a better time. The focus of this text is on an individual approach to the practice of Freemasonry. There is nothing inherently gender-specific about ancient wisdom teachings; their knowledge is open to all with eyes to see and ears to hear. As the author explains, "The purpose of esoteric Freemasonry is to unveil to the initiate the mysteries of life and death through initiations and efficient individual practices." This more mystical type of Masonry seeks to move beyond the mere theatrical form and ritualized reenactment that often characterizes its exoteric cousin. Additionally, esoteric Masons are more inclined to have a personal lodge space in their home for their own private use. This book offers men and women the opportunity to study and experience esoteric Masonic Light in a solo fashion, outside of the lodge setting where members of different groups and jurisdictions may not have the ability to work together.

One of the primary forms of esoteric Masonry covered is Egyptian Freemasonry. De Biasi provides readers with all the tools necessary to begin their own regimen of Egyptian Masonic practice, including regalia and other items for the lodge space. Simple yet effective rites for self-initiation are paired with equally efficient meditations, rituals, and exercises designed to facilitate the practitioner's work.

Masonic author Carl H. Claudy once wrote, "It is not only with the brain and with the mind that the initiate must take Freemasonry but also with the heart." This is certainly true of esoteric Masonry and especially true for any solo Masonic practice. Jean-Louis de Biasi has done a great service to the reader by providing the practical keys to unlock these timeless truths for the individual enthusiast. —Chic Cicero and Sandra Tabatha Cicero

### Esoteric Freemasonry is Egyptian Freemasonry

This book is about esoteric Freemasonry and, more precisely, Egyptian Freemasonry. I am sure that you have already heard this expression. Maybe you have even heard or read about what is presented here as an aspect of Freemasonry. As a matter of fact, Freemasonry today often talks about esotericism being a part of this tradition, or even a marginal section of it. It is true that esoteric Freemasonry is not all Freemasonry. Although your heart is not your whole body, it is the essential organ that keeps you alive. Esotericism is the heart and the essence of Freemasonry. Without it, life will disappear and this organization will become a body without a soul.

To keep this essence alive and in good health, we have to be aware of its existence and its function. The consequences of not taking care of it, or denying its importance, could be huge for the tradition itself and its initiates. I am always surprised to see how often Grand Officers or officers know so little about esotericism and its role in an initiatic tradition. We may be surprised to realize that this aspect of Freemasonry has been minimized or hidden by the main Masonic organizations.

I am not saying that Masonic organizations do not mention the esoteric aspect of their tradition or the other branches of Freemasonry. I am saying that most of the time they do not really know what they are talking about. It is easy to understand the main misconception. Esotericism in Freemasonry is usually taken literally. This word is understood as a synonym for the term symbol. The latter is seen as something hidden, veiled by the visible aspect of a representation. For example, a Masonic tool such as a square will be associated with the meaning of rectitude. Consequently, the square becomes the symbol

of this virtue. From this simple understanding, it could be easy to deduce that esoteric Freemasonry is the learning of the symbols allowing the initiate to find the hidden secret. Obviously, this is what most of the Grand Officers are teaching very seriously. If such assumption is correct, a simple dictionary should suffice. Masonic books, rituals, and initiations would be useless.

As a matter of fact, this is not the case, because esotericism cannot be marginalized in such a way. Esoteric Freemasonry has been a very powerful part of Freemasonry from the beginning of its history. As you may have noticed, I used the expression esoteric Freemasonry instead of just esotericism. The reason is simple but should be highlighted. When esoteric and Freemasonry are associated, that means we are talking about a specific branch that is still part of mainstream Freemasonry. That has been the case from the beginning of this tradition. Several lineages can be found in esoteric Freemasonry. They all have specific rituals that have been developed to maintain occult traditions from a time before the official birth of Freemasonry. Some of them are more focused on Qabalah, whereas the main and more original part is known as Egyptian Freemasonry. If, as I wrote before, esotericism in its full meaning is the heart of this tradition, then this branch should be the place where the secret keys can be found. It should be the Holy of Holies, the secret Naos that every Mason is looking for. But before approaching this sacred sanctuary, rituals and practices should be used to purify and train the initiate. This is the real essence of what can be called an initiatic tradition. This is what the founders of esoteric and Egyptian Freemasonry intended to do. However, this is not what you can find in most of the Masonic lodges around the world.

Over the years, Freemasonry has become something else. At best, this organization has developed into a philanthropic organization using a ritual inspired by the Bible. At worst, it has become an organized power aiming to eradicate or at least control the esoteric branches of Freemasonry. In some countries, such as the United States of America, the main opponent to defeat at all costs is Egyptian Freemasonry. It will be very important to explain in detail the reasons behind this obsession and to highlight the good and bad of this specific branch of Freemasonry. But at this point you may think that I am introducing here another conspiracy theory, this time one inside Freemasonry itself. This is why I want to give you only one example among many. I will come back to all that with more detail later in this book.

The rites called Memphis and Misraim have been an important part of Egyptian Freemasonry. They are present almost everywhere on the planet in various forms. In the United States the rite of Memphis was introduced in 1856. Then associated with Misraim as Memphis-Misraim, it became active in 1861 and continued to work until the First World War.

Then in 1932 one of the Grand Officers of the Egyptian Masonic Rite of Memphis (96°) invested some of his friends to the high degree (95°) and reactivated a Sovereign Sanctuary of the Egyptian Masonic Rite of Memphis.

Then the Sovereign Sanctuary held a meeting to surrender the Sovereignty of its Rites for the purpose of being absorbed by an organization called the Grand College of Rites for the United States of America about to be formed. Officially, this new structure was presented as "a regular Masonic body, dedicated to preserving the history and rituals of defunct and inactive Masonic orders." But the second article of three is "the elimination of sporadic efforts to resuscitate or perpetuate Rites, Systems and Orders of Freemasonry in the United States, except to bring them under control of the Grand College of Rites." Of course, one of the main targets was every esoteric Masonic organization and, more precisely, Egyptian Freemasonry. This is one of the main reasons that this essential part of Freemasonry is so

unknown by most people and even Masons. When you have such a monopoly and what seems to be a conspiracy, it is difficult to compete and tell the truth.

As I said previously, this is only one example among others. When I discovered such major objects of this important and well-established Masonic organization, I was stunned! As a Freemason myself, initiated in several rites, having received the highest degree of Egyptian Freemasonry when I lived in France, I knew that Masonic principles are different from that. Freemasonry should be an institution of tolerance, working to improve our virtues and helping all men to become better men. Everyone is free and freedom of speech is a right in most democratic countries. We can expect Masons to have the same rights. If Egyptian Freemasonry and other esoteric rites are the subject of such strong opposition, it is important to know why! Nobody implements and maintains such power without a clear motive. Esoteric Masonic rituals and organizations seem to have something that make them very dangerous for mainstream Freemasonry. They seem to appear to the latter as a threat against which every effort must be maintained.

Like me, you can sincerely ask yourself the important question, what it is? What could be so controversial and threatening in the esoteric part of Freemasonry? Are there particular teachings, practices, or rituals that we cannot find in classic Freemasonry?

The answer is yes to all that!

Yes, Egyptian Freemasonry represents an original part of this tradition as old as the mainstream organizations that are wealthy and well established.

Yes, Egyptian Freemasonry contains authentic teachings coming from the Ancient Schools of Mysteries.

Yes, Egyptian Freemasonry teaches inner practices that should be used individually and in groups.

Yes, Egyptian Freemasonry and esotericism are capable of providing a curriculum that allows you to know yourself and ascend to spiritual planes.

Yes, Egyptian Freemasonry is a branch of what we can call esoteric Freemasonry.

Yes, Egyptian Freemasonry is still alive and has a lot to give to anyone who is interested in a real inner experience.

And this is why Egyptian Freemasonry and esotericism are very often seen as a threat by the Masonic establishment.

From my previous experience in this field and the books I have written in other languages, I can go even further with you today. This book will be an opportunity for you to practice and experiment firsthand with this hidden part of the Masonic tradition. You will be able to realize in detail what is at stake here. You will unveil some of these secrets, not as a historian but as someone who is eager to experiment.

This is the reason why, even though I will give you clear historical references and access to rare details, my goal in this book is to go even further. I want to give you a real opportunity to individually experiment with this school of Freemasonry. You have in your hands a real guide for the solitary practitioner of Egyptian Freemasonry, Mason or not. <>

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