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five

RICHARD SAUL WURMAN

**5** LIVES  
A BIOGRAPHY  
BY DAN KLYN

**Project Overview**  
**+ Content Sampler**

Richard Saul Wurman Biography  
by Dan Klyn

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## 1. Introduction to RSW Biography Project

Richard Saul Wurman is 84 years old, and tells me he's come to accept that "inventor of the TED conference" will be the headline when he dies.

If that's what happens, the obituary writers will prove (most of them unwittingly) Wurman's first law: *you only understand relative to something you already understand*. Forget everything else he's accomplished: TED will be the lede because videos from TED have been viewed online more than a billion times. I have yet to meet somebody in the course of my teaching and research who's not heard of the TED conference, even while most have never heard the name of its inventor.

I came to know about Richard Saul Wurman through my work in information architecture - a field of professional practice Wurman invented in 1976. Since 2009, I've recorded more than two hundred hours of interviews with Mr. Wurman, and with an auspicious list of his colleagues, friends, and contemporaries. From this embarrassment of biographical riches, including extraordinary access to Wurman's personal archives, and permission to "call whoever you want" from his iPhone's contacts list, it has become plain to me that inventing a conference is not RSW's primary achievement.

Wurman's primary achievement is the opposite of primary achievements. His life's work has been about finding beginnings, not means to ends. I don't see Wurman's life as having a central thread: it's a braid of five threads. Five lives (at least!), in cartography, graphic design, architecture, urban planning, and the design of gatherings.

My purpose in assembling RSW's biography is to make the braid visible. To provide a factual, documentary vantage point from which the many strands and stratagems that comprise Wurman's body of work can be adequately considered, and perhaps compared with the contributions made by his beloved teacher, and by those he considers to be his peers: Louis Kahn, Moshe Safdie, Frank Gehry, Milton Glaser, Massimo Vignelli.

The line of the Wurman story isn't always or even mostly straight - it's not a neat set of concentric circles and straight-line connections, as in a cartoon drawing of a spider's web. Rather, it's the way of the cobweb.

Reflecting on the difference this analogy illustrates, Wurman says:

*A spider web is this beautiful, symmetrical thing. But a cobweb is farther along in the evolution of the spider.*

*You'll notice – when they make pictures of the brain and the connections between neurons – it's a cobweb view.*

*We all think that because the spider web is elegant, that it's correct, when it's the cobweb that's the more efficient and effective way of catching bugs.*

It is beyond dispute that Wurman has been both efficient and effective in catching his quarry. More than simply a contender, RSW won the top prizes in his major concentration in architecture as a student at Penn. He published the first of his two books about Louis Kahn at age 26. At age 35, he was the youngest-ever board member of the International Design Conference in Aspen. At the age of 41, Wurman was made a fellow of the American Institute of Architects. He's the recipient of Guggenheim, Graham, Chandler and NEA fellowships, and the Cooper Hewitt Smithsonian Design Museum Lifetime Achievement Award. He's been awarded the AIGA Gold Medal, the James Joyce Award, the Chrysler Design Award, the Kevin Lynch award, and Boston Science Museum's 50th Annual Bradford Washburn Award (along side of Michael Bloomberg and Sir Timothy Berners-Lee). In 2018, he received the Ladislav Sutnar Prize for outstanding performance in the field of fine art.

I first approached Wurman in the pattern of the disciple pursuing the guru. Sycophantically, I sought a figurehead (in the parlance of Denise Scott Brown) to help me navigate the countless unmeasurables that determine “what good means” in my work as an information architect.

The vivid contrast between the help that I initially sought from Wurman, and the help that I got, serves to explain the difference between the book I thought I wanted to write ten years ago, and the book I'm writing now.

It's not so much that I've abandoned my original quest to mine RSW's work for the lodestone of information architecture. What's different is having discovered that the real treasure is Richard himself; a man of (and at crucial junctures, ahead of) his times, whose in-touchness with wonder and singular passion for making complex information interesting, understandable, and clear comprise a pattern of

Denise Scott Brown  
*Sexism and the Star System*  
*in Architecture*  
*\_Having Words\_*  
Architectural Association  
2009, pp. 79-89



incalculable value to 21st century humans, as our homeostasis and survival now depend on information.

The pattern has been hidden in plain sight: imperceptible to most, because of how dumb it is. I'm reminded of the quip attributed to Marshall McLuhan: "I don't know who discovered water, but it sure as hell wasn't a fish." Wurman has cultivated and indulged his ignorance, and ability to understand what it's like to not understand, to the point of weaponization: making connections and asking questions that are unavailable to the learned way of expertise.

Recognizing and rejecting the single-threadedness of expertise as a very young man, and encouraged (as he was) by Louis Kahn's delight in being dumb, Wurman chose instead to play with and from an unlimited repertoire:

*Look, most people don't understand anything--just like me. The difference is, I admit it. Hell, I wallow in it. Every bit of work I do starts from not knowing.*

Wurman doesn't stack his attainments like stair-steps, for climbing up and out of the mundane. He worships the mundane, takes great pleasure in being dumb, and wants more than anything to see what he's always seen, and yet never seen. He leads with what he doesn't know, and values the question above the answer. Wurman's work demands, like Louis Kahn's work demands, a constant return to first principles.

Wurman is the Tesla of talk. The P.T. Barnum of design. Consequently, his story is one of lightning bolts, and of animal acts. Eccentric electricity, and lion-taming.

There will also be jugglers.

## 2. Stories & Anecdotes

Alvar Aalto, Saul Bass, Harry Beck, Herbert Bayer, Schuyler Van Rensselaer Cammann, Ralph Caplan, Marc Chagall, Serge and Ivan Chermayeff, Dale Chihuly, Muriel Cooper, Lou Dorfsman, Charles and Ray Eames, Richard Feynman, Buckminster Fuller, Jane Goodall, Stephen Jay Gould, Rev. Billy Graham, Romaldo Giurgola, Herbie Hancock, Keith Haring, Jon Jerde, Philip Johnson, Quincy Jones, Louis Kahn, Henry Kamphoefner, Le Corbusier, Ka-Fu Lee, Ian McHarg, Marvin Minsky, Nicholas Negroponte, George Nelson, Stanislaw Nowicki, Michelle Obama, Claes Oldenburg, Sidney Poitier, Pope Pius XII, Eero Saarinen, Oliver Sacks, Vincent Scully, Paolo Soleri, Barbara, Stauffacher Solomon, Frank Stanton, Martha Stewart, Jonas Salk, President Harry S. Truman, Robert Venturi, Massimo and Lella Vignelli.

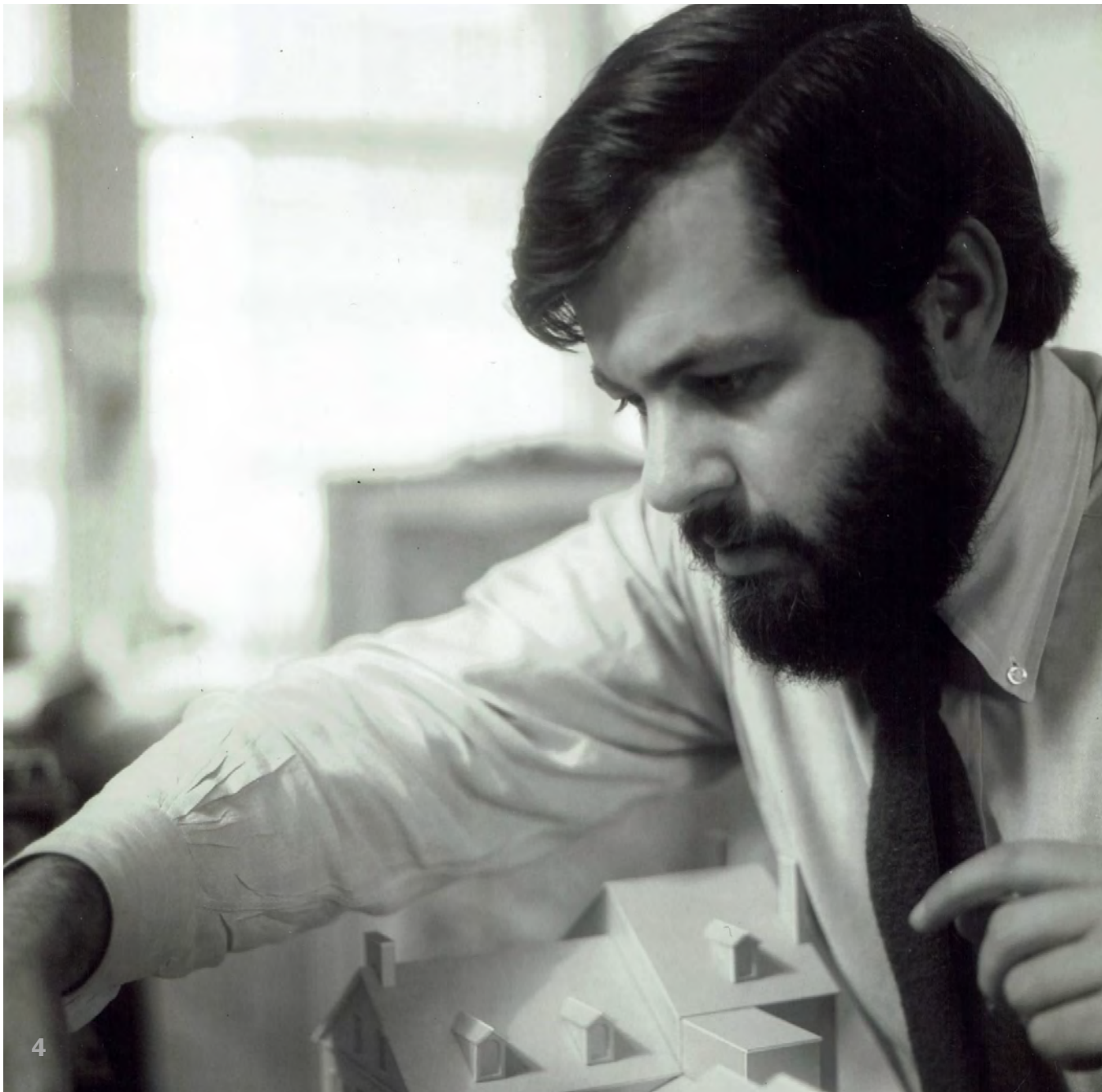
Michael S. Hopkins  
*Get Dumb and Grow Rich*  
Inc. Magazine  
May 1997

**Nicolai Tesla**  
(1856 - 1943)  
Serbian American inventor and visionary engineer who discovered and patented the rotating magnetic field, the basis of most alternating-current machines.

**Massimo Vignelli** is credited as having come up with the P.T. Barnum analogy for RSW and particularly for Wurman's circus ring-masterly way of staging the TED conference.

### 3. Background Interviews

Chris Anderson, David Blaine, Peter Bradford, Abby Covert, Jack Dangermond, Peter Eisenman, Kevin Eubanks, Ping Fu, David Gallo, Jesse James Garrett, Frank Gehry, Maria Giudice, Milton Glaser, Jim Hackett, Marsha Haverty, Nigel Holmes, Bjarke Ingels, Nathaniel Kahn, Jon Kamen, Paul Kandarian, Saul Kaplan, Joel Katz, Joan Kron, Mei Ma, Yo-Yo Ma, Debbie Millman, Peter Morville, Nicholas Negroponte, Lou Rosenfeld, David Rothstein, Moshe Safdie, Tommy Scott, Bonnie Scranton, Nathan Shedroff, Paul Soulellis, Molly Wright Steenson, Edward Tufte, Spencer Tunick, Christina Wodtke, Joshua Wurman, Gloria Nagy-Wurman, Maggie Xiao.



MIT Press publications involving Richard Saul Wurman, all of which will be photographed and described in this biography, include:

*Urban Atlas*  
(1966)

*Man Made Philadelphia*  
(1970)

*Making The City Observable*  
(1971)

*The Nature of Recreation*  
(1972)

*Yellow Pages of Learning Resources*  
(1972)

*Various Dwellings Described in a Comparative Manor*, 2nd ed  
(1972)

*The Notebooks and Drawings of Louis I. Kahn*, 2nd ed  
(1973)

*Process of Choice*  
(1974)

*Yellow Pages Career Library*  
(1975)

## 4. Content & Media Types

In addition to voluminous audio recordings of conversations with Wurman, and with his colleagues, collaborators and confidants, I have amassed the most extensive collection of Wurman-related primary source material and artifacts anywhere. I'm well-equipped to pair images of artifacts and scans of photographs with the stories of their making.

## 5. Chapters & Organizing Principles

I'm working from an outline that's based on the five types of innovation Wurman identified in his theory A NOSE, and have mapped some of Wurman's most compelling works and ideas into these five main chapters:

ADDITION	Addition and convergence in the TED conference
NEED	Needing a guidebook: inventing ACCESS guides
OPPOSITE	<i>Information Anxiety</i> and <i>Information Architecture</i>
SUBTRACT	Removing the obstacles to doing good work
EPIPHANY	The "Eureka!" of doing things in a comparative way

The biographical chapters should be punctuated by interstitial graphics, to visually explain RSW's *oeuvre* in terms of LATCH: **locations** he's lived and worked in, **alphabetical** lists of people, an annotated **timeline**, a visualization of the distribution of Wurman's work across **categories**, and lastly: a visualization of Wurman's many awards and honors according to the principles of **hierarchy**.

## 6. About The Author

Dan Klyn is co-founder of The Understanding Group (TUG), a US-based information architecture consultancy that's sold more than \$10 million in services based largely in the work of Richard Saul Wurman.

Klyn teaches information architecture in the graduate school at the University of Michigan School of Information, is a frequent keynote speaker at digital and user experience design conferences, and in 2018 he completed a two-year term as President of the Information Architecture Institute.

## 7. Passion @ Pomona

Wurman served as Dean of the School of Environmental Design at Cal Poly Pomona in 1978 and 1979, before being forced to resign after having been found to be non-compliant with State of California regulations regarding time that employees in management positions must spend on campus. Wurman was subsequently re-hired to the faculty of the School of Environmental Design by the President of the University, Hugh O. La Grant Jr. With full tenure.

### Innovator Treads Slippery Path

by John Dreyfuss  
The Los Angeles Times  
November 26, 1978  
p. 151

Ricky Wurman has a messy desk, wears blue jeans, keeps a flower on his desk and a cappuccino machine next to it.

He is the aggressive, artistic, ardent, ambitious, intelligent, driving, untraditional new dean at the rather traditional School of Environmental Design (SED) on Cal Poly University's Pomona campus.

Richard Saul Wurman's tenure at Cal Poly seems bound to be short. He won't say so, but it's clear he is there to make some substantive changes, build a reputation for the SED and leave to others the maintenance of that reputation and school. If it takes him as long as five years to succeed or fail, a lot of people will be surprised, especially Ricky Wurman.

He may walk away from Cal Poly down the road from success, or get swept away—as have other administrators at the SED's department and school levels—by self-dissatisfaction and the subtle but massive muscle of faculty discontent. The route depends on how Wurman and his faculty play the complex, perplexing and dangerous game of university administration. It's a game with a blurred rule-book.

Blurred regulations suit Wurman just fine. He likes to play by his own innovative rules. If existing ones are hazy, so much the better.

"I've taught in a lot of different places," the dean said. "I have become more and more immersed in how bad schools are. No school I ever visited was doing some of the basic things that I think are inescapable."

The course Wurman recollects most vividly from his time at Cal Poly Pomona was an introductory class called Passion@Pomona, where he invited friends and colleagues to lecture about a thing they were passionate about. The cross-disciplinary roster of guest lecturers included James C. Arbaugh, Stephen Bochkor, Sheila and Peter de Bretterville, Francis Crick, Francis Dean, Glen Fleck, Frank Gehry, Lawrence Halprin, Jon Jerde, Ralph Knowles, Panos Koulermos, Charles Loggins, Anthony J. Lumsden, Marvin Malecha, Jack MacAllister, Allyn Morris, John Pastier, Robert C. Perry Jr., Edward Pickard, Stefanos Polyamides, David Rinehart, John M. Souza, Jr. and Daniel Benjamin, Jivan Tabibian, Stanley Tigerman, and Tom Van Sant.

Wurman wrote the following and published it as part of a poster promoting his Passion@Pomona course at Cal Poly Pomona that appeared in the May 1979 issue of L.A. Architect Magazine.

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I have little interest in education, have a passing interest, perhaps merely a curiosity in teaching, but I am all but consumed with learning. It's what I can learn, what I can walk away with, rather than what I can teach, that interests me.

By and large progress is only measured in terms of better versions of more of what we already know doesn't work. We build more schools and we put more money into a school system even when we realize the extent of their failure. We don't look for another system but we try to do a better version of what we already know does not work very well.

Performance is what design is about. That's not function.  
Performance is like theater performance. Function is like going to the bathroom.

A course which would be entirely fascinating to me is the idea of what we are to ants, what we are to other things, as a way of seeing ourselves better. I think you could have a whole semester on time, fast and slow, and what time is to architecture. And size. Does anybody know how big an acre is? Now if I told you

that an acre is 43,560 square feet that still doesn't mean anything to you. But if I tell you an acre is approximately the size of a football field, you'll never forget that.

You only understand something relative to something you already understand. You could all be asked to keep for the year a journal called Negative Results, how things don't work. Or a course where you kept two columns, one called Hope and the other called Absurdity, and you could look at your life and what occurred to you each day based on those words.

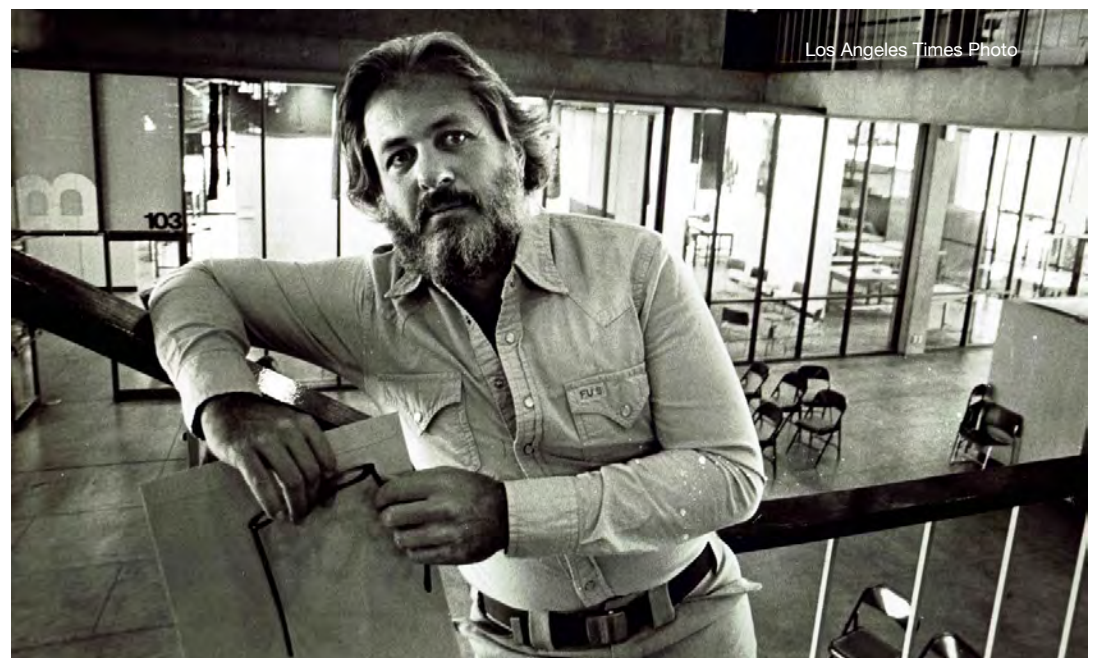
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The first stage of design education is art as **free play**. And that is what it has been in the most progressive schools. You are taught to push around paint and you are a free spirit, and art is free play. In the most repressive schools you do the same thing, but you can't leave your seat. But in no place is art taught as you would teach basketball or chemistry or an exercise or music or history or English as a discipline. The second stage of design education is called **hazing**. You are taught what the faculty were taught, the way they were taught. It's like a fraternity hazing and it holds the field in an incestuous self-fulfilling prophecy.

Stage three is **anything goes**. You're taught that anything's okay, that we will find in your work some perversion that we can endorse. Next stage is called **puzzle prep**. Puzzle prep is where you are given puzzles to solve in which you are merely rearranging predetermined parts, not questioning the fundamental issue or understanding the problems and intentions.

Stage five is **drag race design**, where you design something, always looking over your shoulder at what the other person is doing, so that you do something, not because it is good but because it is different. The last stages are **the numbers game** and **the fame game**. When you feel that you have gotten to the poking of doing something different or shocking or rearranging the parts you then call in 8 or 10 or 4 other people and form a group named after a city and a number. Then you have written a little bit of architectural history that's written by people who want to have history written about them. It's a kind of annotated ambition.

I've been fascinated with Stewart Brand who, as you know, was the perpetrator of the Whole Earth Catalog. It seems to me that about a third of all publications in bookstores are permutations or derivations of the Whole Earth Catalog. I tried to think of why I love the catalog. What I love about it is those things that aren't listed. The space between the listings, those things not yet invented, or thought of, those ideas, those cracks, those gaps, appear more fascinating than those things listed.





## 8. Meeting Richard Saul Wurman

**Kevin Eubanks**  
Guitarist and composer,  
known to millions of television  
viewers as the band leader on  
The Tonight Show with Jay Leno  
for 18 years. He recorded this  
anecdote for use in RSW's  
biography at my request.

You can follow him on Twitter  
@kevineubanks

I was invited to a conference called On Cue, and it was run by a gentleman named Tony Tjan. I was there to present with the great Herbie Hancock. I was so excited, Herbie and I played a song, and it was a long day. A lot of presentations.

It was really great.

At dinner, I went into the dining area, where you were supposed to pick your number, and you - that means you get to sit at a certain place at a certain table. I was so hungry, and I was there kind of early. So I'm sitting at the table by myself. Eventually, people started filing in, and sitting down, and it was cool. Herbie sat at the table, and he started talking to some people, and then everybody else started coming in.

And it was taking a long time.

And I just remember, I was really hungry, and I didn't know anybody, and I was kind of shy, and I didn't.. I'd never been in this place before.

So I just started looking around, looking around at the table settings, because I didn't know what else to do. And I look around at all the plates on the table, and each place was set with the thing, the triangular rack that pool balls are in. So there's a plate sitting on each of the racks, in front of each place at the table. So I'm looking around, because I didn't know what else to do. I'm waiting to eat.

And I look around, and I turn and look over at the person at the head of the table, and I look at the other place settings, and I notice that everybody else's plate was white except for this one guy. He has a black plate. So I look at the black plate, and I look up, and this guy's staring right at me.

And I looked at him, and I looked at the plate, and I just started looking elsewhere. And he said *hey, why are you looking at my plate?*

And I said, I'm not really looking at anybody's plate, just looking around. Just hungry. And he said *no, you're looking at my plate, and you know it's because it's black.*

*Would you feel better if you had the black plate?*

And I could feel a little bit of stress at the table, and I said  
“Hey, I'm just waiting to eat. I wasn't implying anything, I was just looking around.”

And he says *Here, why don't you just take the black plate, if that makes you feel comfortable.*

And the table got a little bit more quiet then.

And then the conversation started to pick up again. So now I don't want to say anything.  
Finally, they start serving food. And then he goes *Hey!*

And I look up, and he's talking to me.

And he goes: *You have a problem.*

I don't know who this person is!  
Never met the person before.

I don't know anybody at the table  
other than Herbie. There's a guy sitting  
to my left, a woman sitting to my right.  
People started looking at me.

And I said “Excuse me?”  
And he says *You have a problem,*  
*and I'm going to tell you what your problem is.*

People started getting a little nervous. People started getting up from the table. And every time a seat was empty,  
he would move over a seat, and it just made everybody even more nervous.

Sitting next to me (I found out later) was the great computer scientist Ping Fu. Moshe Safdie, the great architect, is  
on my other side. There's a guy sitting across from me who is a physicist, who learned to play pool just from  
following the angles on a table. So anyway, this guy just keeps getting closer to me, and finally Ping was so nervous  
she finally got up and left.

And he comes and sits next to me he says, *you know, you have a problem.*

And I look up,  
and he's talking to me

And he goes:  
“you have a problem”

*You see all these people? They like you. They love you here. You and Herbie played great. They like you, and you don't even notice it because you're too damn comfortable. You don't want to contribute anything else. You're relaxed, and you're calm just floating through life and you're not contributing what you should be contributing.*

And he says *that's just.. that's just shameful.*

And people started noticing it. And he just keeps getting closer to me, and he says *you don't know me do you?*

I said “no, I don't.”

He says *well, look, I want to talk to you, but I don't want to talk to you here. So you call me tomorrow before 5:00 o'clock. And if you don't call me before 5:00, I'll never speak to you again.*

I'm like, who is this guy? Why is he being like this? Who is this? Everybody had left the table by now. It's just me and him there, and he says.. we just started talking. He goes, *you know, you should listen to me. I have a mansion. Can you swim?* And I said yeah, I can swim. *Well, I have a pool, and you should come to my house.* He then pulls out his phone, and shows me pictures of his house, this mansion in Newport, with a pool inside, and a pool outside.

What? Who is this guy? I'm listening to him, and looking at all of this stuff on his phone, and I'm nervous: I guess I should look, so I'm looking.

And he says *call me before 5:00 or I'll never speak to you again. Have you ever been to Rhode Island?*

I said, “I'm going to play the Jazz Festival there.”

And he says *I'm not going to come to the Festival; I never go to those things, but I'm going to give you my number, and you call me. And if you come to my house, we'll hang out. You can go in the pool, and if we don't get along, then fine: goodbye.*

And I said “OK. All right (I still am not aware of who this this person is).”

And so he gets up from the table, and then he turns around, and he leaves. He says *you're too damn comfortable,* and he just walks away.

I don't know what to do.

I don't know anybody here. And as soon as he leaves, these people start coming up to the table and saying “wow, I never saw Richard speak with somebody that long, how long have you known Richard?”

I said “Richard. Yeah.”

“How long have you known Richard?”

And I assume Richard was the person I was just talking with, and I said “I just met him!” And one person just started laughing and says “look, I want Richard to help me out on a kind of a small conference: I wonder if you could pass this card on to him.” Somebody else came in and said “I'm a sculptor, and I want to ask Richard about this and about that.” Six or seven people started asking me to contact Richard on their behalf. Richard Saul Wurman, which I found out then, is what this guy is called.

So my head is spinning now, and everybody's coming up to me because I'm hanging out with Richard.

Everybody thought, you know, that I just knew Richard and that was their way of getting in touch with Richard was through me. I found out later that it was Richard who made the choices for arranging where everybody sat at the dinner.

He sat me at that table.

And I didn't know that.

So all of this happened. It all came together. I called Richard the next day before 5:00. I did the Newport Jazz Festival. And I went to his house, and we've been really good friends ever since.

I've met so many people from hanging out with Richard. It's kind of funny that we met the way we did. So whenever I go to these conferences, and people say “well how do you know Richard, how does Richard know you?” “What circle did you guys connect in?” I tell this story.

Richard has his version of the story too, but this story is the *real story*. People go, “how did you meet?” and he's standing right there while I tell it, so I'm not saying anything that he hasn't heard, you know?

But anyway, that's how I met the great Richard Saul Wurman.



## 9. The Last TED

This fragment is previously unpublished, as told by Richard Saul Wurman to

**Paul E. Kandarian**  
Freelance writer, photographer, actor, traveler, self-proclaimed bon vivant.

You can follow him on Twitter @Travelboomeran

I was sitting on stage at the last TED conference I ran in 2002 with my old and dear friend, Frank Gehry. We were chatting, just talking, and after 10 or 15 minutes it occurred to both of us that we were having this conversation on stage in front of a thousand people.

We got so lost in conversation, and that's what a good conversation is, something you get lost in, that we forgot all the faces who were sitting in our dinner party, maybe like they were peeking in from behind the curtain.

I really didn't want to make a speech, I just wanted to talk, two old friends, two old farts, a takeoff on MacArthur, just fading away. It was that kind of bittersweet, almost melancholy moment.

I finally looked out and saw the audience and it slightly startled me. I stood up, kissed Frank on the head and said "I love you," then turned to the audience and said "I love all of you, too. Peace."

Then in the Barnumesque TED moment these things were known for, I started throwing TED swag into the audience, with tears in my eyes. I cry a lot and make no apologies for it.

Everyone stood and gave me a standing ovation and I thought, "Well, maybe that's all." Perhaps this meeting, this talking with an old friend, and having been given a private, albeit on-the-stage concert by Yo-Yo Ma, certainly my musical idol, having an audience filled with so many people I love and respect so much, this culminated my life. That it can't or won't get any better or more interesting than this.

It's hard to say how good a standing ovation feels. But I got used to it at the end of my conferences. People would stand and applaud the person they were making rich, they'd stand and applaud their asshole, stand and applaud for the gift they gave each other by being in the same room, the gift of their conversation with each other, the gift of seeing things they'd always seen but had never seen, patterns that never occurred to them, wallowing in four days of what was dubbed by one conferee as "Christmas morning for the mind."



Alexander Gorlizki and Riyaz Uddin  
(2006)

I thought that at the end of February 2002, at my last TED, perhaps that's all there was for me.

And it was sweet and bittersweet, and now I know it's not all there is for me, but certainly it was one of the special events of my life – and one of the journeys. In my case, the continually unexpected, unplanned journey that brought layers upon layers of possibilities, and funny, delightful, tearful conversations into what otherwise would have been a much more narrow existence best described by my wife, when she was commenting on this duality of insecurity and arrogance in my life, and said:

“Richard thinks he's a little piece of shit at the center of the universe.”

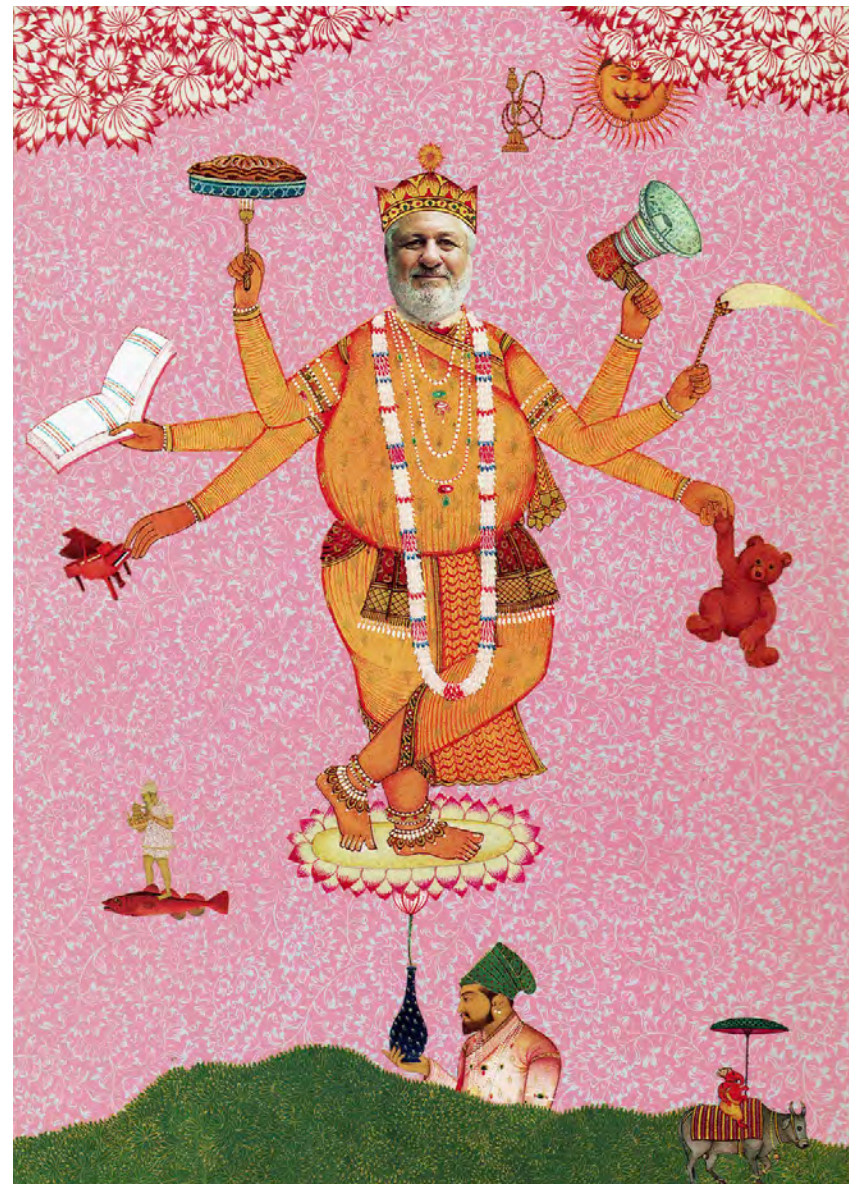
So be it.

I have a ying-yang conflict between terror and confidence, between clarity of pattern observation and stupidity, between ignorance and accomplishment, between narrowness and breadth.

And between being a little turd at the center of the universe, or not.

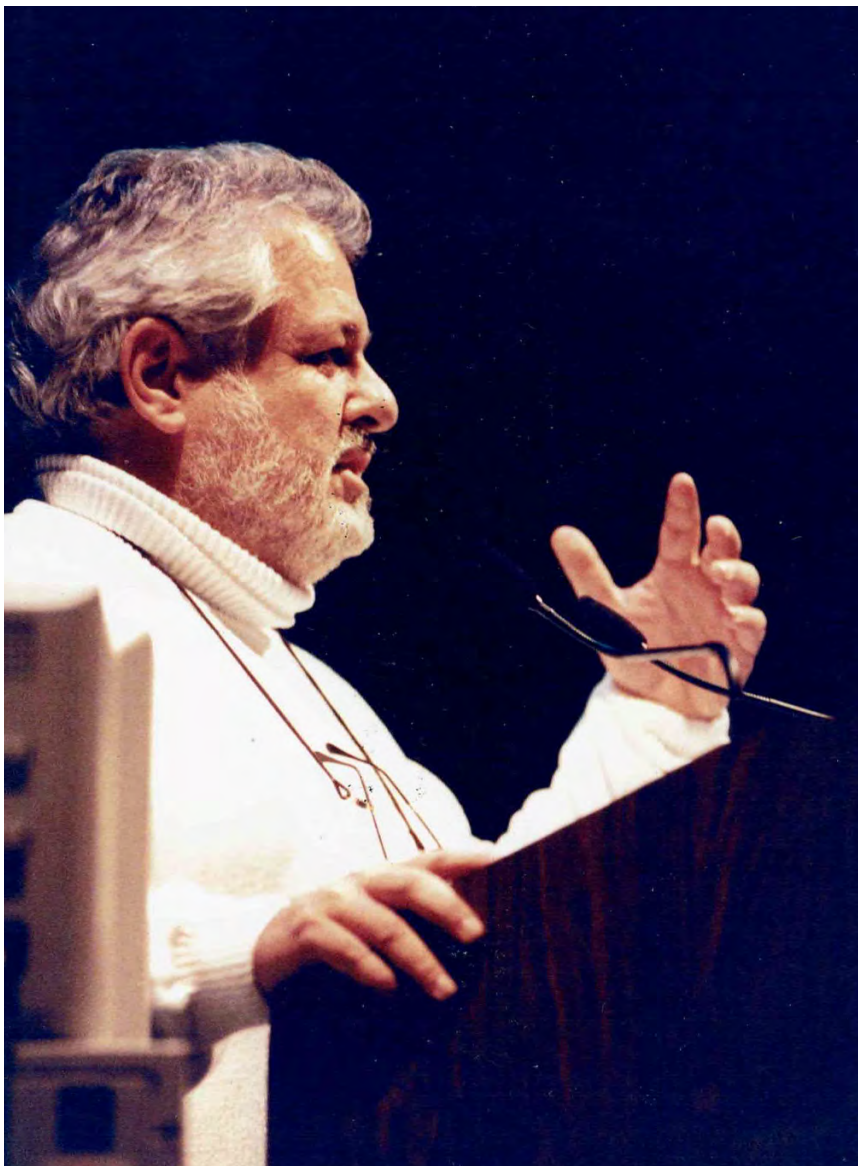
But now, many years after that last TED, my life is more interesting. The collection of high points that TED represented is so far outdone by the focus of multiple convergences that I find in the technology, entertainment and design business, and the science and discovery and biology and health-care fields, that life is more interesting now, more fascinating.

As corny as it sounds, the high point wasn't “That's all.”



Alexander Gorlizki and Riyaz Uddin  
(2006)





## TED3

20 - 23 February 1992  
Monterey, California USA

Richard Saul Wurman, Chairman  
Stephen Jay Gould, Speaker  
Quincy Jones, Speaker and Performer  
Bill Gates and Timothy Leary, Attendees

As corny as it sounds, the high point wasn't "That's all."

A couple of years after that, when I was 70, I thought I had maybe 10 summers left, a concept from the movie "Holy Man" with Eddie Murphy in which he talked about having 80 summers in life.

That struck me.

The fact is, on average, you have about 80 summers, summer the metaphor for the good life, summers being that time in your life when you feel most alive. So I picked up on that and realized as you get older, you have x-number of summers until 80. I had 10 summers left. Not 10 summers until death, but 10 summers of statistically having a body and mind not impinged upon by age.

I made 80. They say if you make 80, you'll probably make 87, but the quality of life will go down.

There's a great one liner about dying: "I'd like my last check to bounce." That's part of the mentality that you have at least partial acceptance of the number of days you have, the number of breaths you will take, the number of years you can walk upstairs, the number of summers to enjoy. And instead of being desperate about it, you say "OK, that's what I have."

So all those thoughts came over me as I was on stage with Frank, and although I felt them, I challenge them now. It's not "that's all." Some of the clearest patterns I've seen I have seen in the last few years. I think the creative mind, the creative person, the creative human is able to see patterns. It's pattern recognition we see that others sometimes don't. It's seeing the things you've always seen – but never have seen.

And seeing the pattern of what's there and what isn't. Is it the notes or the space between the notes that is the music? Is it the buildings or the space between the buildings that cities are built on? Is it the one liner or the space between the one liners that is the humor? Is it the idea or the space between the ideas where understanding happens?

At the start of each TED, I would welcome everyone to the dinner party I always wanted to have but couldn't. That model is spectacular. It says I'm going to a party and I have trust in the host that if they invited me, they've invited other good people. I trust I'll be between two people who don't do what I do but it will be interesting. I have trust that as I turn left and right and have conversations, the journey in the discovery of similarities and differences will be intriguing. And that's the dinner party.

And it still is.

A journey of a thousand miles, according to Chinese proverb, begins with a single step. That could include a single idea, pattern, concept, thought, conversation, story, understanding.

Life is a journey. I've enjoyed mine. May you enjoy yours.



**Building  
Louis Kahn's  
Symphony Barge  
Kent, England**

Immediately after being hired into the office of Louis Kahn in 1959, Wurman was sent to the UK to work as job captain for this mostly-steel construction project.

"I started working for him on a Friday, and he sent me to London on Sunday."



**With Ray Eames at the International Design  
Conference in Aspen**

RSW became the organization's youngest Board member in 1970, and chaired the conference in 1972.

This photograph appears to have been taken at the conference circa 1980. Wurman served on the IDCA board until 1982.

Dan Klyn  
ASIS&T Bulletin  
June/July Double Issue  
(2016)

William J. Mitchell  
\_The Reconfigured Eye:  
Visual Truth in the Post-  
Photographic Era\_  
MIT Press  
(1994)

## 10. In Pursuit of Masterworks of Information Architecture

The most fundamental argument that picture makers make is indexical.

I base this on my own generalized experiences working as an information architect since 1998, and specifically on a quote from an essay by William J. Mitchell in 1994:

*The photographer is more of a pointer than a painter.*

To my way of seeing, *all* picture making is pointing, inasmuch as distinctions are being made between what is and is not encompassed by the picture. Choices in demarcation for what's "in frame" and what's not build a simple index that's powerful enough to encompass the entire universe: this (picture) is not that (everything else).

That being said, it's often impossible to reverse-engineer a holistic model of the picture-maker's more prosaic arguments from a single instance of a canvas or of a photographic print.

But with two pictures, it's a wholly different situation.

With two pictures, the process of comparison begins to unlock understanding. Fruitful investigation may now proceed, without the need to wait for expert assistance.

During my time as an undergraduate English Literature student at the University of Michigan, I split my time between reading the works of James Joyce and working at a bike shop. I was keen to develop expertise with both, and was surprised — after asking the shop owner how he got into the business — to learn that he had no particular interest in bicycles. He said he'd decided to buy a bike shop because his training in the Army equipped him to perform an exacting inspection of *anything*, so long as there were at least two of the things to inspect. The "bi" in "bicycle" ensured his success in that business, because even while he did not personally possess the expert knowledge of how to adjust a brake, or true a wheel, he'd learned that careful comparison of "sames" makes it possible to discern something about the quality of both entities under inspection. He routinely found flaws in the work of technical experts solely on the basis of comparing the configuration of what they were working on to an adjacent

instance of what was supposed to be the same configuration.

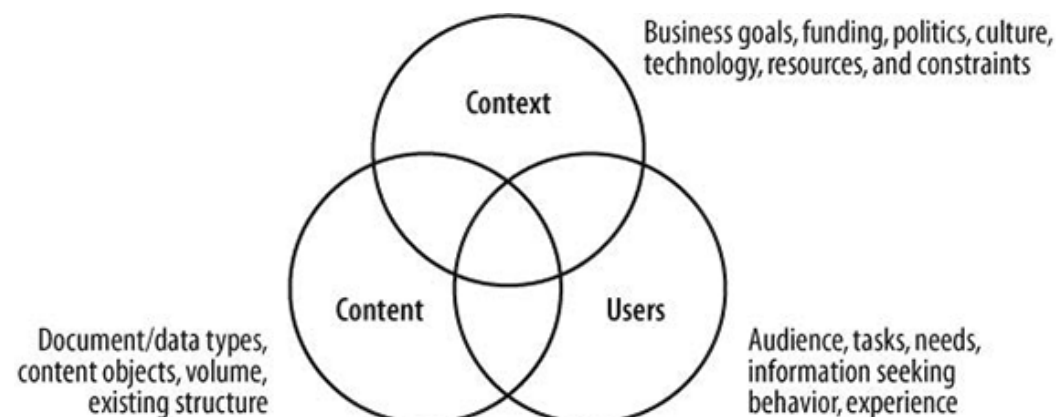
I never forgot that lesson in conducting an effective comparison in the absence of expertise. And through many years of trial and error in my practice, I've come to realize it's an equally powerful approach for experts. I wonder if it's even more important as a tool for experts, who so easily lose track of the (proverbial) forest in concert with the increase of their expertise with a particular kind of (metaphoric) tree.

### Table Stakes

Some comparisons are more powerful than others. It strikes me as reasonable (if not essential) to establish some “table stakes” for the game of identifying and evaluating supposed *masterworks* in order to better ensure the cross-comparability of the features of the examples put forward as exhibits. Especially if the value of a given comparison is proportional to the number of features that are available to compare.

To these ends, and by way of example, I propose modeling the criteria for entry into the consideration set for masterworks of information architecture within the three dimensions used across four editions of the industry standard primer on information architecture: aka the *Polar Bear Book*.

Louis Rosenfeld  
and Peter Morville  
*Information Architecture for  
the World Wide Web*  
O'Reilly  
(1998)



### Content

There should be significant quantities of it. In multiple formats, with synchronous and asynchronous patterns of generation and consumption. It seems impossible that a work of information architecture could be considered capable of achieving the rank of “masterwork” in spite of the quality of its content. And further, wouldn’t we expect to find the great works of information architecture standing in places where content is “king,” and where the kingdom had been unruly and badly governed prior to the creation of these architectures?

### Context

The context I would most expect to find a masterwork of information architecture having emerged within is one that’s inherently cross-channel, with information pulsing through pervasive layers in blended spaces. Contexts where issues like provenance, authorship, language, versioning and legal compliance are highly complex and demonstrably problematic.

### Users

In my experience, a difference in scale is often a difference in kind. In light of this, I would suggest that candidate masterworks of information architecture be available to if not directly experienced by vast numbers of people; ideally, from a multitude of cultural and socio-demographic backgrounds.

On these bases for admission into the consideration set for masterworks of IA, I propose a comparison of the info-architectonic approaches employed by James Joyce in his 1922 epic *Ulysses*, and those we can appreciate in the realization of Richard Saul Wurman’s 1963 publication *The City, Form and Intent*.

## Considerable Similarities

It was in 2012 that I first began considering similarities between the makers of what I’m proposing as two masterworks of IA — subsequent to Mr. Wurman being feted by University College, Dublin with the James Joyce Award. Until then, it had not occurred to me that their lives or works might be so comparable. At face value, Mr. Wurman seems to have more in common with Leopold Bloom, the heroic “everyman” avatar for Odysseus in Joyce’s send-up of Homer’s epic. But the similarities between these two author-architects, and between these works of theirs, are considerable.

The **James Joyce Award** is given by University College Dublin to those who have achieved outstanding success in their given field; recipients have ranged from respected academics, lauded political figures, skilled actors and, like James Joyce himself, writers.



Joyce and Wurman each received the best schooling available at the time in their respective communities. Both were noteworthy among their peers and teachers for having immense potential and a certain precociousness in the early expressions of their talent. Prior to beginning undergraduate work in their respective fields, both men thought they might pursue fine art as vocation: Joyce was a celebrated tenor; Mr. Wurman was (and still is) a marvelous painter.

Wurman and Joyce alike had difficulty submitting as schoolboys to their respective schoolmasters. In the case of the former, Dr. Lloyd W. Ashby, principal at Cheltenham High School in Elkins Park, Pennsylvania, refused to shake hands with young *rki wurman* at graduation.

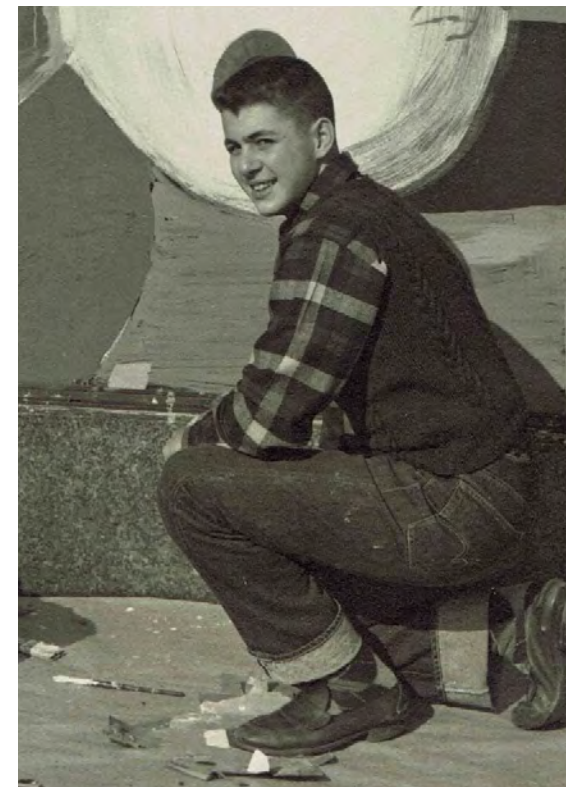
The list goes on, but one crucial similarity stands out when comparing the stories of how these men came to produce the extraordinary works in question: They were both very close to the means of production, and were able to rely on the resources of close friends and collaborators who were involved in avant garde publishing.

Were it not for radical American expatriate Sylvia Beach's willingness to start her own publishing imprint, risk imprisonment for obscenity and pay for the typesetting and printing of the now-storied first edition of *Ulysses*, it may not have come out as a book at all. And even so, most copies of that first edition were intercepted and burned as pornography on the pier at Folkestone in Kent, England.

For his part, Richard Saul Wurman relied on close collaboration in manufacturing with a pioneering offset lithographer by the name of Eugene Feldman. When I asked him, Wurman remarked that Feldman

*..was well known as an experimental printer. He was my collaborator on the Lou Kahn book: I designed it, but I gave him co-credit, and he paid for the whole printing. If you see how beautifully that was printed and how he matched that yellow "trash" color [of Kahn's tracing paper originals] and the feeling of Kahn's charcoal of the drawings, that was Falcon Press. He taught me about printing.*

As a high schooler, Richard Saul Wurman removed redundant letters and capitalization from the printed display of his name.



Richard Saul Wurman painting a holiday window display at John Wanamaker's department store in Philadelphia circa



## Masterworks In Terms Of Content

### The “Sand Models” Book

That book on Lou Kahn — designed and edited by the then-25-year-old Wurman — was the first of many Kahn-related projects Rick and Gene (as Kahn called them) did together at Falcon Press in Philadelphia, up until Kahn and Feldman’s untimely deaths in 1974 and 1975 respectively.

The book project immediately following *The Notebooks and Drawings of Louis I. Kahn* was Wurman’s second mature foray into the

architecture, design and manufacture of a print publication, but I consider it to be the world’s first self-consciously info-architectural work.

The title as given is *The City, Form and Intent: being a collection of the plans of fifty significant towns and cities all to the scale 1:14400*. It was created by Wurman in response to the library at the University of North Carolina in Raleigh not being able to provide the maps he required for teaching 2nd year architecture. When you ask him about it today, Mr. Wurman refers to this work as his “Sand Models” book:

*I got some money to buy Plasticine from the school, you know... \$100 bucks or whatever it was. I got the light green Plasticine blocks you use in kindergarten. You could press down into the clay with balsa wood and pick it up, and that was a road. And we got a couple widths for big roads and smaller roads. It was shitty, but okay, right? They looked fine.*

*I constructed that book in my head, and that’s why I made [each model] 17 inches square: because I knew I could do every model and reduce it in half and have it 8 ½ inch a square, which was the size of the student publication. And I wanted to do it so I could build them sloppy: it’s much quicker to build something large and sloppy than very neat and small. So it was much faster to build it big: like how it takes longer to do a short speech.*

*I sent the negatives up to Gene and he said, “I think I should make my own half-tone screen.” And so he did his own half-tone screen of enlarged paper fibers — not a real screen — but the large paper fibers is what you see as a screen; that’s*

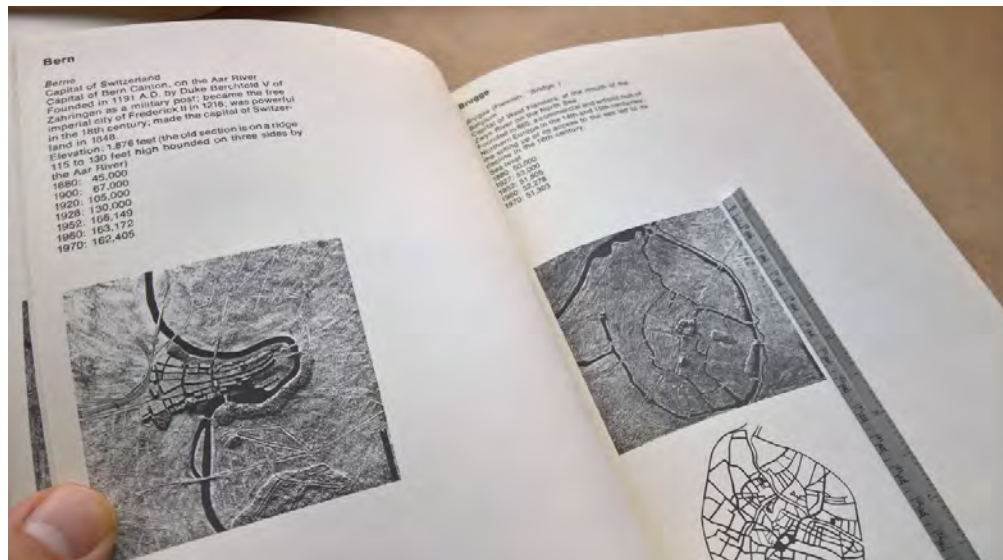


*what we used as a screen and that even gets rid of any other imperfections, and it makes it look more like sand models: more hand done. And that's how I did the book. And we printed it.*

The resulting publication manifested the fractal core of Wurman's concept of the architecture of information. It's the first appearance in print and remains one of the most powerful artifacts from his *oeuvre* exemplifying what he would later coin as Wurman's First Law: *you only understand something new relative to something you already understand.*

Wurman involved the entire 2nd year architecture class for four weeks in the production of the plans of 50 towns and cities in kindergarten clay, at the same scale. In so doing, Professor Wurman ensured his students' ability to understand any one particular city or town by way of facilitating a calibrated comparison with one or more of the other forty nine. If any of the students in Raleigh, North Carolina, had been to Savannah, Georgia, they would now be able to understand something about Amsterdam. Or Ankor. Or Assisi. Or Athens.

The content strategy for the project produced by Wurman and his students in North Carolina in 1963 is isomorphic to the very specific context and users for the project, even while its physical realization is polymorphic, and functions on the basis of a loose coupling of words and pictures from a structural and spatial perspective.



Richard Saul Wurman  
*Cities: Comparisons of  
Form and Scale*  
Joshua Press  
(1974)

Part of what gives me the confidence to propose the 1963 edition as a masterwork of information architecture is comparison with an edition of the work that Wurman printed in 1974 under his own Joshua Press imprint.

The 1974 version, titled *\_Cities: Comparisons of Form and Scale\_* provides access to the “same” content that the students created in 1963. Presented in an inexpensive perfect-bound codex and comprising all of the pictures and words from 1963, one could argue that it's a more “user friendly” edition.

It was certainly a more commercially viable way to make it possible for more people to access the ideas and information.

It's also, in my view, a manifestly inferior object, whose architecture is at odds with the purpose that generated the work in 1963.

Comparison here proves that a given quantity of pictures and words, when presented within a different information architecture — where the spatial and semantic relationships are re-keyed to a wholly different geometric configuration — simply doesn't mean the same thing, and doesn't operate in the same way.

### **The Scandal of *\_Ulysses\_***

How to introduce, especially to those who've not yet read or examined it, what's widely esteemed as the 20th Century's ultimate work of fiction in the English language? How might one better equip people who understand information architecture, but who've not yet read the novel, to appreciate the thing? I like what Vicki Mahaffey says:

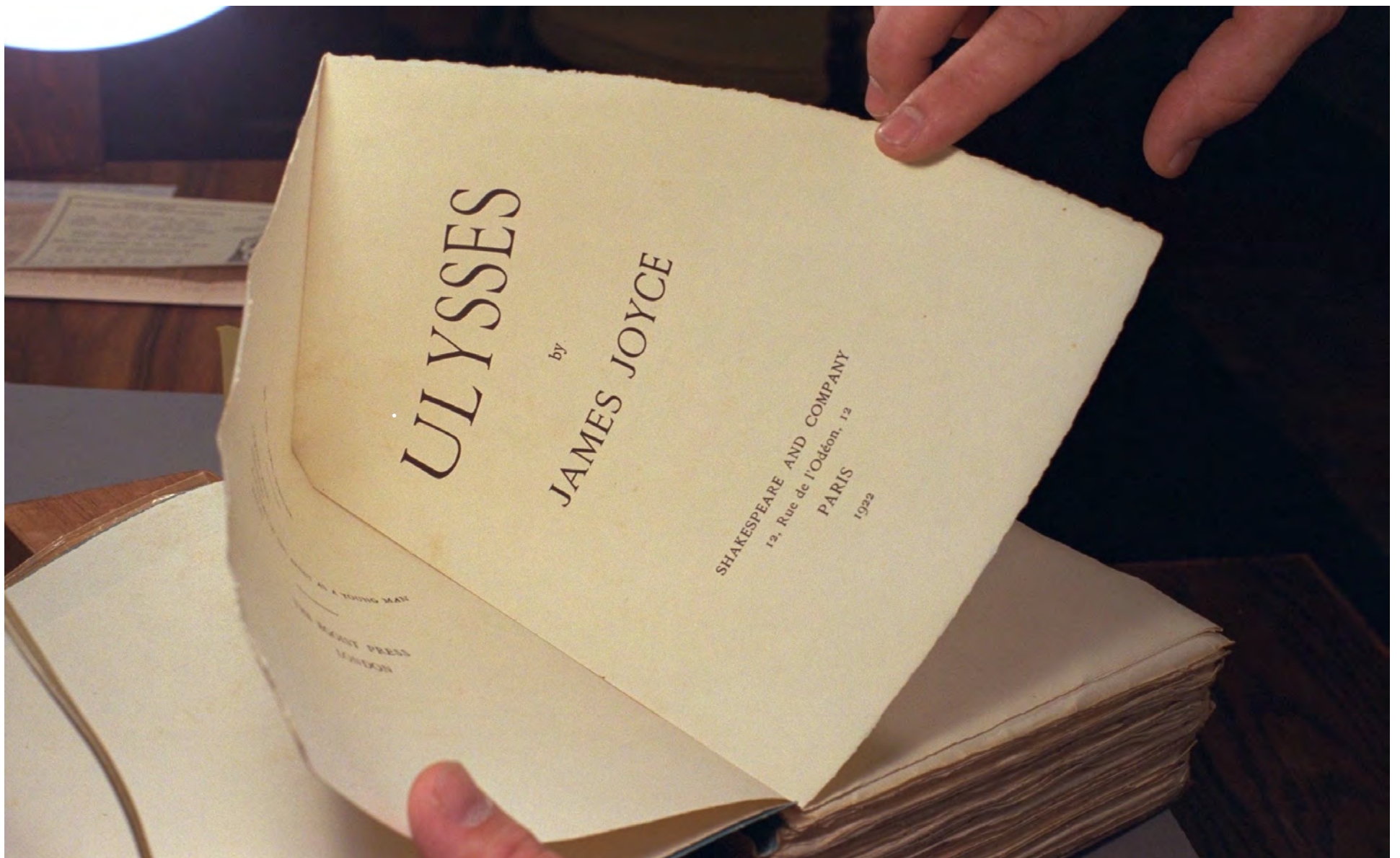
*\_Ulysses\_ is an ebullient, compassionate, raucous, radically democratic, searingly honest yet full-of-blarney anti-narrative. It is far longer than you would like until you've read it once; then, suddenly, it seems way too short. It can seem daunting, even ponderous if you approach it with awe tinged with resentment, but if you hear it as a repeated injunction to "choose life" as it is, as it was, as it can be, it turns into a verbal and emotional thrill-ride where the only thing to do is to let go and enjoy the journey. And it is about journeys, or Homeric odysseys, here compressed into a single day.*

Joyce's use of Homer's *Odyssey* as a structuring device for the actors and actions in the story is widely known and used by today's readers, many of whom would have been assigned interpretive aids in tandem with the text of the novel in a college course in English Literature or Modern Novels. The *Odyssean* scaffolding is likely to have been quite less tangible to readers in the ranks of Joyce's original audiences, for whom the eighteen numbered-but-not-named episodes that comprise the work would have seemed *non sequitur* in relation to the 24 episodes of Homer's epic.

That is, if they could get their hands on a copy of the book, which was suppressed in England, France and the United States under contemporary obscenity laws.

In the same way that the loose-leaf "book" Wurman brought out in 1963 was and is capable of meaning differently, and in more complex and extraordinary ways than what's possible and available for people from 1974 forward who've interacted with the subsequent codex version, the meaning that Joyce was able to create in the work we all refer to as *\_Ulysses\_* is very much a function of its original configuration and the process of its realization as a made object. To such a significant degree, I will argue, that the physical realizations of the work must be addressed as spaces for and of meaning that are covalent with the "text." In both *\_Ulysses\_* and *\_The City, Form and Intent\_*, as with many great works of architecture in the built environment, the structure itself is authored and architected to be legible, and to be read as text.

To put it another way: had either author realized the work in question as a letter that you or I would receive in the post, what I'm saying is that the envelope, and the paper stock, and the geometries of how the paper is folded, and the orientation the postage stamp; even the smell of the paper would be considered instrumental to the meaning



Photograph by Shane Davis of copy #26 from the first printing of the first edition of *Ulysses*, from the collection of the Detroit Public Library.

This copy has presumably never been read (the pages are not cut), and is one of 100 editions de luxe printed on handmade Dutch paper and signed by the author.

A copy similar to this one was recently offered for sale for £250,000.

that's been made. These elements are not merely ephemera necessary to delivering a payload of “actual content;” **they are actually content.**

An example of just one of many bibliographic/architectonic codes available for readers in 1922 to interpret as part of the meaning of the work: the blue of the cover. Basic historical research finds myriad witnesses to the fact of its having been selected by Joyce to evoke the hue of the Greek flag. Understanding this particular artifact of the realization of the work as codex in 1922 enriches the reader's experience with any other version or edition. It may even embolden the reader to interpret other color choices for cover stock and binding cloth in the editions Joyce is known to have been involved in the manufacture of as authorial.



Contrarily, one example of a particular artifact of the realization of the work as codex in 1922 that those same readers might have found less helpful in interpreting the work: a word that looks more like the name of a bird (Kildere) than the name of a place in Ireland (Kildare). Much like the infamous error in the text of *Moby Dick* that caused critics to do gymnastics in their analyses to come to grips with Melville's supposed "soiled fish of the sea," only to have later editorial scholars identify the authorial reading as "coiled," the typist's error *Kildere* can be corrected to to *Kildare* through collation across other versions and editions.

Basic editorial scrutiny of this sort, sometimes referred to as "copy-text editing," reveals a plentitude of other features inherent in the the first edition of *\_Ulysses\_* existing as they do primarily or solely on account of the work having been assembled and printed under conditions of censorship.

Ellmann's biography has Joyce saying, "I've put in so many enigmas and puzzles that it will keep the professors busy for centuries arguing over what I meant."

## **Masterworks In Terms Of Context**

### Haveth Versions Everywhere

There were six distinct editions of *\_Ulysses\_* printed during Joyce's lifetime, none of which were based on a single, intact manuscript source. Prior to its publication in Paris in 1922, several but not all of its episodes were published serially in magazines in the USA and in the UK. As patrons of the literary arts became aware of Joyce's quickening trajectory toward being esteemed as the finest writer of his generation, Joyce's colleague Ezra Pound arranged for the constantly-impooverished Irishman to create a composite "manuscript" of *\_Ulysses\_* specifically for the purpose of selling it as a fetish object (as opposed to its use being the generation of a printed artifact).

The way that Wurman architects information is more muscular [than Joyce], perhaps on account of having developed those spatial-relational muscles quite specifically through five years of architecture school at Penn and several years working in the practice of Louis Kahn.

The net result of Joyce and Beach and Pound's myriad decisions and actions around matters of composition and publication for the first edition of *\_Ulysses\_* and its progenitor drafts and variants is a structural design to the total work that permits and even generates ambiguity around what Joyce might have meant. And to the extent that the consequences of these decisions and actions depend on a blending of diegetic and nondiegetic space and place for their effects, the lens of information architecture is (arguably) essential to any attempt to describe the nature of the order of the work.

I do not believe it is too much of a stretch to assert that the context within which Joyce composed, edited, published, corrected and re-published *\_Ulysses\_* was inherently cross-channel. And yet, the structural integrity of

its meaning inheres, even as creative and commercial forces push that meaning into, through, between and across channels and touchpoints.

There is no one touchpoint, in fact, where the diegetic universe of the work exists intact. *Ulysses* may be the first work in English in the 20th century whose information architectures can be said to cohere across channels but not within any particular one. And to the degree that these aspects of the work occur in at least two kinds of space (diegetic and nondiegetic), and can be described in terms of a whole field of geometric and semantic inter-relations, the verb which encompasses so many crucial acts of making both works — for Joyce and Wurman alike — is **architecting**.

Joyce's brand of architecting *Ulysses* looks more like judo than karate — anticipating and incorporating the ebb and flow of artifacts in and out of the diegetic space where the work's meaning undulates. He accommodates. The way that Wurman architects information is more muscular, perhaps on account of having developed those muscles quite specifically through five years of architecture school at the University of Pennsylvania and several years working in the practice of Louis Kahn.

Kicked Out Of The Nest?

Louis Kahn is known to have placed extraordinary responsibility in the hands of very young practitioners in his office. Kahn entrusted the entirety of a complex project in England to the 23-year-old Wurman, and RSW told me that he was working on the Fisher House during the third year of his apprenticeship in Kahn's office when his boss and mentor suggested a change.

*Lou asked me to come join him in his office, and he said Henry Kamphoefner was in from North Carolina State University in Raleigh and was looking for somebody to teach first and second year down there, and he thinks I should do it. He recommends that I do it, [and says] that Siasia Nowicki thinks I should do it and Bob Geddes thinks I should do it.*

*I said, "You know, I feel like you're rejecting me." I didn't want to go. I didn't want to leave. So he pushed that aside and said, "I think it'd be good for you."*

[Klyn]

Was he kicking you out of the nest?

*He said, "I think it'd be good for you." He said, "Why don't you go over there and talk to him." Siasia was known by Henry Kamphoefner because Matthew Nowicki's one masterpiece before he died very young in an airplane crash is in Raleigh, and he taught at the school. And they both [Nowicki and Geddes] had recommended me. So... I mean: I felt strange. I didn't want to. I just bought a little house in Philadelphia. I had one child, Joshua, who was a little over a year old, and one on the way. But Lou... basically Lou said he thought I should do it, so I did it.*

*I mean it was that relationship. And I was young, and I hadn't taught. I was 25 I guess, it wasn't just a walk-on: they*

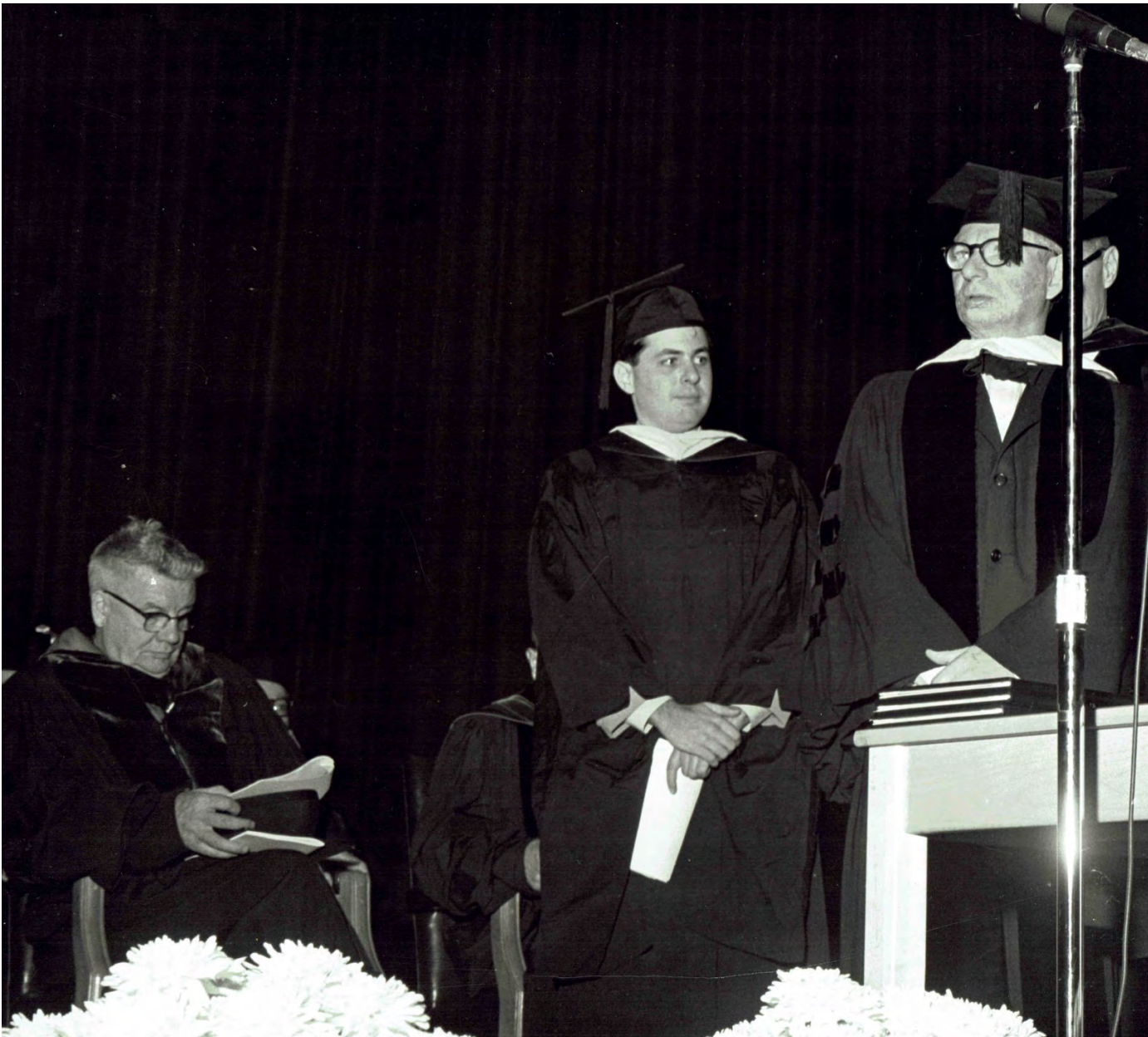
**From the 1963 NCSU Yearbook**

*Richard S. Wurman is an Assistant Professor of Architecture, teaching first and second year design, and he is the advisor for the Student Publication of the School of Design.*

*Mr. Wurman received his Bachelor and Master of Architecture degrees from the University of Pennsylvania. He is presently a member of the firm Murphy, Levy, Wurman, in Philadelphia, and a Project Coordinator for the North Carolina Film Board.*



**Louis Kahn received his first-ever honorary degree from North Carolina State University in Raleigh in 1963.**



*were making me Assistant Professor of Architecture. And I taught first and second year. Two classes. They had maybe three sections.*

It is clear that, for himself at a minimum, Kahn placed an extraordinarily high value on teaching. He taught unceasingly, even during times of great need for his presence at the office, taking positions at Penn, Princeton and Yale. Did that range of classroom experience allow Kahn to foresee the specific ways that teaching would affect young RSW's future practice? RSW told me that he now understands that Kahn knew it would be good for him to hear his own voice in the classroom, working through his ideas with the students.

I can't help but see what Kahn did there as "kicking the chick out of the nest," and the near-immediate result was Wurman seizing what would turn out to be a marvelous opportunity to flex his architectural muscles, and stretch his wings. The opposite of the Icarus myth:

*North Carolina State was sort of interesting — much more interesting than it should have been, being in Raleigh. I had been more than dabbling in graphic design, so when I went down there, I wheedled my way in to be the advisor to the student publication. The fame of the school was really based on the student publication, and they had done some very good ones in the past; notable ones. I mean: remarkable.*

In his 1989 best seller *Information Anxiety*, Wurman adds the word "happy" to the word "limitations." Surely the pre-existence of requirements for governing an already-successful student publication — not the least of which being budget, format and skill level of participants — were exerting their force on RSW in ways that would never have happened up in Philadelphia in the nest of Kahn's office.

### **Masterworks In Terms Of Users**

How many people have had their ability to be an actor in the interplay between works of art, their makers, and the means of production totally blown up and re-constituted by an experience with *Ulysses*? Far fewer, I suspect, than those who have read or have attempted to read the novel in just one codex edition, without regard to the cross-channel ecosystem of meaning that pulses through and around the one touchpoint they hold in their hands — this one discrete version/edition coupling among hundreds of thousands of possible combinations.

I count myself among the former, but have had little success finding reliable figures to speak to the latter. What is the total number of copies of the book printed and/or sold since its first edition in Paris in 1922? Millions, it would seem. And unlike a radical work of art that has huge influence on the next three generations of artists, but little commercial impact during its day (I'm thinking about that first Velvet Underground album as just one example), the esteem accorded to *Ulysses* once it broke free from obscenity constraints on its commercial availability drove and still drives a more-than-just-a-cottage industry in products and services.

In contrast, Wurman's "Sand Models" book was printed in an edition of 1500, and that was it. As would become the pattern with all but a handful of the 100+ books RSW did forward from 1963: only one edition, in one printing.

Denise Scott Brown  
**Mapping the City:  
Symbols and Systems**  
Landscape 17  
(1968)

*We sent it to a couple hundred people who were on our student publication list and then all of a sudden, we had a thousand copies I think, and they were gone.*

*Then we started getting things back: a Norwegian architectural magazine put some of them on the cover. L'Architecture d'Aujourd'hui, the fancy architecture magazine in France in Paris, made it the frontispiece. Yale School of Architecture mounted [the plates from the 1963 edition] into an exhibit, and it was up for 25 years.*

The near-mythic status *\_The City, Form and Intent\_* would go on to attain among cartographers and urban planners may have had something to do with its scarcity as a physical artifact: it is impossible to know for sure. Subsequent projects in cartography would take on even more fabulous modalities, 1966's *\_Urban Atlas\_* being the most fabulous of all, earning a recommendation from Denise Scott Brown that it be acquired as a highly valuable piece of *Op Art*.

#### RSW As The User

The proof in the pudding for *\_The City, Form and Intent\_* being a masterwork of IA in terms of users is best considered, I submit, not so much in the terms set forth at the start of this article and used in appreciation of the first edition of *\_Ulysses\_*; rather, its status as a masterwork in terms of the dimension of “users” must be tweaked to appreciate the impact on its maker.

*It [the 1963 Sand Models book] just got to be known. And I said, “What the fuck is this?” I thought this must have been done a hundred times before. And the revelatory thing was that nobody had ever done it. And I said, “Holy Moly! You know, I backed into, you know, dog poop here...in some terrific way.” That uh...here's my life laid ahead of me. I could just do this! If this hasn't been done, man; there's a lot of things that hadn't been done comparatively. And I thought that was all I was going to do for the rest of my life. And indeed it seemed that way because for the first few things, that's all I did.*

*Then I didn't.*

*And now I'm doing it again.*

Richard Saul Wurman  
**\_Making The City  
Observable\_**  
MIT Press /  
Design Quarterly  
(1971)

What he meant by “doing it again” in the passage above is a project called The Urban Observatory, first described as a concept by Mr. Wurman in 1967 and published in 1971, and then realized 47 years later as a web-based application in 2014. In ways that are profoundly opposite to Joyce's provisional



architectures of cross-channel information, Urban Observatory uses equalized cartographic scales and demographic datasets across disparate information layers to enable users to create and compare their own “vertical” seams in the info-architectural space, through the touchpoint of a website:

<http://urbanobservatory.org>.

### **What We Can Learn From Masterworks of Information Architecture**

#### As Makers

For information professionals who are primarily working in terms of screens and digital interfaces, what strategies might we apply to what we’re doing and how we’re doing it with the benefit of this comparison?

I am convicted by what’s clearly a necessary pre-condition on both sides of this comparison, which is for the architect to possess the combination of “relational capital” and technical expertise to play an instrumental role in commercial and manufacturing aspects of the project. Neither of the information architecture development processes that resulted in the manifestation of these two works had a stopping point. The information architecture was in development at every step, from inception to manufacture. In both cases, in fact, the work continued to be architected *after* initial publication in a first edition.

#### As Participants and Observers

How will you or I know the other masterworks of information architecture when we see them? I believe that until additional candidate works are identified and subjected to the crucible of comparison, we remain in a mode as observers and participants seeking to appreciate these masterworks that’s not entirely dissimilar to the mode that was prevalent in the United States in the 1930s with regard to pornography: until some rigor is brought to the matter, we’re left with: “I know it when I see it.”



**Murphy Levy Wurman**

Offices in Philadelphia  
1214 Arch Street  
circa 1974





Originally published as a blog post on The Understanding Group's (TUG) website in May of 2014.

Speakers in the Penny Stamps Lecture Series at the University of Michigan in 2009 included, in chronological order:

- Paula Scher
- Jamy Ian Swiss
- Margaret Livingstone
- Bernard Khoury
- Douglas Hollis
- Dave Gallo and Bill Lange
- Richard Barnes
- Bob Mankoff
- Clotaire Rappelle
- Mary Ellen Strom
- George Manupelli
- Marina Abramovic
- Richard Saul Wurman
- Jacque Fresco
- Anne Pasternak
- Jose Francisco
- Hanna Smotrich
- Nick Tobier
- Daniel J. Martinez

## 11. Twenty-Five Hours in Grand Rapids with RSW

The first time I got to see Richard Saul Wurman give a talk was in Ann Arbor, Michigan, in March of 2009, as part of the University of Michigan's Penny Stamps lecture series. In May of 2014, I got to see him give three talks in Grand Rapids, Michigan, over the course of just 25 hours. Were it not for equipment failures at O'Hare, Mr. Wurman would have given a fourth.

More often than not during the years that he ran the (now-legendary) TED conference, Mr. Wurman sat in a chair on the stage. That's one of the reasons so many of the great talks from that era are not available on TED.com—it's nearly impossible to crop him out of the shot. He was as interested in the audience as he was in the "content," and therefore required the ability to see and engage with both. This meant sitting on the stage during the talks and lighting the hall to make it possible to see audience members' faces. Consequent to Mr. Wurman's requirement for house lights to be up during talks, video under those conditions looks bad. That's another reason those original TED videos remain largely unseen.

And when the talks went too long or got boring, he'd simply get up out of his chair and escort the speaker offstage.

Because it was no longer interesting.


Being interested—and thereby connecting and inter-connecting the things he finds interesting in a process toward understanding—is the only activity RSW cares about.

In collecting my thoughts about the experience I had while accompanying Mr. Wurman for 25 hours in my hometown as part of West Michigan Design Week and TEDx Grand Rapids, I see patterns. Patterns connecting back to the original TED gatherings and to that Penny Stamps lecture in 2009.

The first thing he did while walking out to take his place in an overstuffed chair at the very edge of the stage in Ann Arbor in 2009 was ask the audience to move

<b>TED</b>	23–26 Feb 1984
<b>TED2</b>	22–25 Feb 1990
<b>TED3</b>	20–23 Feb 1992
<b>TED4KOBÉ</b>	07–09 May 1993
<b>TED5</b>	23–26 Feb 1994
<b>TED6</b>	22–25 Feb 1995
<b>TEDMED</b>	11–14 Oct 1995
<b>TEDSELL</b>	21–24 Feb 1996
<b>TED7</b>	19–22 Feb 1997
<b>TEDNYC</b>	24–27 Sept 1997
<b>TED8</b>	18–21 Feb 1998
<b>TEDMED2</b>	13–16 May 1998
<b>TED9</b>	17–20 Feb 1999
<b>TEDX</b>	23–26 Feb 2000
<b>TEDCity</b>	7–10 Jun 2000
<b>TEDXI</b>	22–25 Feb 2001
<b>TEDXII</b>	21–24 Feb 2002
<b>TEDXIII</b>	20–23 Feb 2003

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up and fill in the front rows. Then, as ever, his desire was to have a conversation, which requires making eye contact and holding the gaze of the attendees so that he could see for himself that he was being understood.

He had the same demands about house lights being up during his talk at TEDx Grand Rapids. And he insisted the chairs provided for the two of us be as close to the edge of the stage as possible.

In his Penny Stamps lecture, Mr. Wurman went longer than the pre-appointed time block of 45 minutes, and he voiced regret about having had quite more to say before somewhat abruptly bidding the audience goodbye and leaving the stage. At TEDx, the appointed time slot was 30 minutes, which is long for a TED talk. Even so, he went longer. And, true to form, he voiced regret about having had quite more to say before somewhat abruptly leaving the stage.

However disappointed RSW was with his TEDx appearance, his assessment of the keynote talk he gave for Design Week the night before at Fountain Street Church was quite the opposite. There's the saying (attributed to Churchill) about how we shape our buildings and how thereafter they shape us. I think Fountain Street Church itself, and the marvel of the space within its sanctuary, played a significant role in that talk being among the ones he said he was satisfied with afterwards.

Reprising the pattern I've seen him enact in other cities and at other venues (the 2010 IA Summit in Phoenix being one example), Mr. Wurman closed his keynote at Fountain Street Church by asking the audience for two questions, with a caveat that taking questions after a speech is rarely a good idea because what you typically get is "speeches and bad questions."

The first question from the audience was something along the lines of "where do you get your inspiration from?"

Mr. Wurman's answer came quickly, and it served as a sort of mind-bomb for several attendees I spoke with afterward who weren't expecting to have the foundations of their systems of belief and motivation up-ended.

Simple answer: FEAR.

He elaborated by saying "comfort is not your friend."

If you let that one work on you for a few minutes, it begs all kinds of questions about how one might go about the design of one's life. In a conversation with students from the local art college before his keynote, Mr. Wurman insisted that's the only kind of design that matters: the design of your life.



The second question from the audience was one that RSW wanted to clarify before responding: “what do you want to be when you grow up?” Mr. Wurman’s initial delay in responding appeared to me to be about confirming that it was a sincere question—as opposed to somebody trying to be cute.

Because, I think, the answer he wanted to give and eventually did give is part of a pattern that Mr. Wurman holds sacred. Indeed, he cried in the course of replying to the question by saying that his beloved mentor Louis Kahn was “the youngest man I’ve ever known.”

I think he cried because he knows that what he wants to be when he grows up is nobody else, other than maybe a younger Richard Saul Wurman. I think he’s jealous of, and in mourning for, the younger versions of himself that he got to be, prior to Kahn’s death in 1974.

In the preface to *\_What Will Be Has Always Been—The Words of Louis I. Kahn\_*, the first instance I know of in print where RSW shares his assessment of Kahn being the youngest person he’s ever known, Richard Saul Wurman recounts both the intellectual as well as the physical and spiritual power and vigor of Kahn in his 70s, racing up the several flights of stairs to his office on Walnut Street in Philadelphia.

Having spent 25 hours with Kahn’s then-79 year old protege, I can tell you it’s not easy to keep pace. And I think by now you’ve gathered who I want to be when I grow up.



**Richard Saul Wurman**  
**Frank O Gehry**  
The Furniture Brothers  
Jerry Magnin Gallery  
323 N. Rodeo Drive  
Los Angeles  
(1981)

*Tables By The Slice*



**Richard Saul Wurman**  
Consultant at the Eames Office  
Los Angeles, California  
circa 1977

## 12. An Evening With Richard Saul Wurman

Richard Saul Wurman  
Keynote speech in Grand  
Rapids, kicking-off the  
city's first-ever  
Design Week.

Fountain Street Church  
May 7, 2014

[Holding and poking at his iPhone]

I want to make sure it's off today. Two phone calls came in in the middle of my last speech. It was humiliating. And they were important calls. I had to take them.

[iPhone rings]

I won't take it, I promise.

[puts iPhone behind him on the risers at the front of the sanctuary]

This is a lovely room. Lovely number of people here. It's really amazing. I mean I...I like watching television.

I don't go out at night and listen to people talk!

I love television. How many people here love television? I love television. I really do. I really...I'm still amazed by television. I know you're not supposed to love television and be an educated person, but every year at TED, someplace during the thing just to cool things down I'd say, "I love television." I don't love some of the television. I'm a little tired of the Malaysian flight and of news that gets repetitive. I don't like the news on television. I don't think the news is very good anywhere on television. It used to be. And I really like the news. I really like the patterns in news. But between getting it a day or two late in newspapers, and I get three newspapers and scan them, but I know I've seen it before on line, and I know I can see it on television. There's not one...CNN used to be good...and news...what's happening and the patterns of what's happening in the world and life is extremely important to me. And online you can find...you can have this journey...this miracle of being interested in something and finding out about it. It's a miracle to me, too. I don't take it for granted.

At night at dinner we eat...my wife and I eat I the kitchen. One night a week we go out one night for dinner, and the rest of the time we stay at home, and eat different things. And we have two big refrigerators. We live rather pretentiously in some ways, and unpretentiously in others. We live in a big house, but we eat in the kitchen. And we have two huge refrigerators because we have a big kitchen and GE paid for the whole kitchen, so they gave us two big refrigerators. And (I scam everybody)...and we have...these two refrigerators, which are like a cafeteria. So we explore the refrigerators, and take out different things. We have

a housekeeper that leaves around 2, comes in early and leaves about 2. She stocks the fridges, and then you just can take out things. And I warm some things and Gloria warms other things, and we have two or three different kinds of soup, and two or three different kinds of this. And we just pick out different things, and we sit and we watch television.

And that's a really nice part of the day to look at some of the shows. The writing on some of the shows, on some of these murder mysteries like True Detective. I mean you can't imagine. I mean, some of the writing is better than any movies. It's such an art form, when you realize you're watching sometimes a 20-hour movie. You're watching a thing that goes on for a very long time. Such long form, brilliant writing, and convoluted passages. And they think of plots. If you look at Blacklist, you think of plots that you can hardly image. And they're being developed by some of the brightest people in the world in America.

A few years ago, I was asked...I knew a guy who was running the War Room in the White House underneath the President's office, so he asked me to come over and tell him what I thought. So I came over and when I went over there, it was sort of crappy. I understand it is better now, but it was really primitive. They have some really great war rooms in West Virginia, but this was not one of them. And it was just terrible. I mean it was just amateur night at the circus. And he asked me what I thought could be done. I said, *Where I think you should be, you can't get there from where you are.*

Like if you get out the front door here, and you say, you know, "How do I get to Beijing?" You just don't get to Beijing from the front door of this building. You can't get there from here in any kind of sensible instructions. And I said, you couldn't get there. But I said you should really watch the movies. Because in the movies (and television too), everything that takes place was thought up by a human being. It was written by brilliant people, smarter people than are in Washington.

[Audience laughter]

Well, that's not even a joke. They are smarter people than would be in Washington. The best people in the world don't work for the government, by definition. Somebody who is really extraordinary would not run for president. Why would you? Why would you do some of the...that wouldn't be your job of choice. So it's not a pejorative, and you have to understand that as a politician, I have to tell you what you want to hear, and I have to tell you what you want to hear, and I have to tell you what you want to hear, and I have to tell you what you want to hear, therefore I have to continuously lie. And that's the nature of the job.

And if you're a CEO of a company, I can't tell you anything that's going to happen. I can't tell you if it's going well or not well. I can't tell you any of my secrets. I can't tell you the future. I can't tell the truth because I owe it to the stockholders and yet most all conferences are made up of politicians and CEOs. Isn't that strange? If you look at a full-page ad for a big conference that they're going to have in New York from some big company having it or you look at some other conferences that are run today, you see that half of them are people who are politicians or CEOs. Neither one can tell you the truth, and we're going to sit there in the audience and nod. And the other half of them are selling guilt. The gift that keeps on giving for you to give money to make a better world. Well, that's a strange thing. It's not who I am.



It's strange to tell the truth. It's hard sometimes to tell the truth, but if you just listen to any sentence. People out there, "How's it going?" "How's everything going?" "How've you been?" "How are you doing?" "You're looking good." "We're very happy to have you here." "I'm really looking forward to your speech." And I say, *no, you should tell me that after the speech.*

You don't look forward to a speech – you think about it afterwards, and you think if it was a good speech or not. After I leave or when I leave, whether I give a lousy speech or a good speech, everybody will say, "It was a great speech." So I don't know if people are lying or not lying. But nobody would tell me leaving the room, "That was a really shitty speech." Because people just don't tell the truth.

Now I'm talking about the minutia. This is just the minutia of life, but it's all about design. It's about the design of how you talk to another human being. It's the design of speech. It's the design of everything I do of how we understand.

I rehearsed today this speech by talking to some wonderful students over there [at Kendall College of Art and Design] today, and they listened to me. They were a wonderful audience, really lovely. You can really tell when an audience is listening and why I asked you to sit up front, and I'm going to give a TEDx talk tomorrow, and I insisted that the house lights be up and the lights on my face be way down so I can see...you know, nobody insists on that. Nobody wants that. I'm the only speaker at TEDx tomorrow who won't have...you know, be blinded by lights in their face, and nobody asks to see the audience. The speech is about talking to somebody. That's what a speech is. The speech is my sense and what I get back from you. We're in this together. And if I lay a bomb and I'll know it's...if I go along, and I'm laying a bomb, and it's not working, I'm going to feel shitty, and I'm going to know it. And you should know it. It's very, very real.



How many people here did I stand up today by not coming to the luncheon?

[Scans the audience]

Is there anybody here from the city planning committee? Could you put up your hands so I see who I'm talking to? You're the only one? Nobody came? Well if you would take my regrets back. I couldn't help it. I was going to talk about something that I think they were interested in, and I'm sorry they didn't get here. But they had to replace two tires and then a hose broke and something, and I was in the airport for three hours. I had all intentions of being here. And I hated being there.

But I'll tell you what I was going to talk about, and then you can take the message back.

I am interested in a lot of things. And that is the joy of my life, and the curse of my life. I don't do anything deeply – I'm sort of...I'm shallow, but I'm broad. I'm very broad in my interests, and I'm terribly interested in the connectivity, the connection between things of how they relate. I'm interested in what I understand. What do I truly understand?

I'm 79 years old, so I'm an old fuck. I'm an old man. I just am old. I know I'm old.

I don't think I'm old up here..

[points to his head]

..but I know I'm old. I mean I know how old I am, and that's old. If meet somebody that's 79, I'm deferential because I think they're old. If I meet somebody 69, I'm deferential because I think they're old. I think they're an old person. I should help them. I just feel that way. So I understand that the 90% or whatever it is, my life has past. I can't live with that every minute because it would...you know, I would be paralyzed.

Early in my life, I had a few epiphanies and that's appropriate to say in a religious building. They weren't religious epiphanies, but they became my religion. And the epiphanies...one was that I didn't understand anything. I just didn't understand a thing. I was empty. I was blank. I was the top student at the University of Pennsylvania School of Architecture. I got the Gold Medal, had the highest average, took more courses than anybody has ever taken before or since, got all the traveling fellowships, etc., etc., and I knew *nothing*. I was absolutely vacuous. Everything I knew had been taught to me, and I sort of repeated it somehow, and there was nothing that was just knowing.

And I so much wanted to see patterns. And I loved maps because maps seemed to be...I made a little acronym. I tried to be clever for myself all the time. I tried to impress myself that I'm clever. I make up names. TED was a name I made up. I was very fat and was like a teddy bear, and I gave away teddy bears at TED and it was Technology, Entertainment, and Design spelled TED. And I tried to be clever. And one thing I thought of was the word, MAP: Mankind's Ability to Perceive. And a map is the pure indication in graphic design and human design of putting together information in a visual form and numeric form and linguistic form that you could understand something. You could perceive something that a chart of how a company did was a map of that company...that a chart of somebody's life...a timeline...that everything was a map. Everything around me that

informed me was a map, a map wasn't just a pretty thing. A good map wasn't prettier than a bad map – it was just...it was the organization of information so you could find a pattern. Pattern recognition so interested me. It was so interesting, and it put together that I saw everything in the form of maps.

I play a lot of solitaire on my iPhone. I see them as maps, and I see them in everyone I see as a time in history. So sometimes they're a different time in the 20s or the 30s or the Middle Ages. I've never said this to an audience before because it makes me feel like I'm a nut case. But I really do. Some things I've said before but something I haven't said before. So far I haven't said most of the things in this speech before.



So I started really thinking about cartography, and so when I was 26, I with some students...now the pattern of my life is I do nothing. And I'm Tom Sawyer. People paid him to paint the fence, right? So I'm not going to tell you every single detail of how I got it done. But trust me, I get things done. And I've done 80-some books and I've done lots of conferences, and I've done lots of all kinds of stuff. I get it done. And they all look like I did it, and everybody who helped me has credit on it. So I'm not stealing peoples...the basic ideas are mine, but I can't do anything. I can't...I don't probably even drive very well.

One of my best friends, head of @RadicalMedia...I was...just last week I was talking to him on the phone. I said, *Jon* (he's my partner

on one of my mapping initiatives, and he's very skeptical always of what I do, but he is also very nice) *I'm 79. I should have one really sort of incredible car...sort of a dream thing...men dream about cars. And I should have that.*

I can buy anything I want. Not without guilt – but I can write the check is what I'm saying. And so I think, maybe I'd get a Jaguar convertible. Or a Bentley convertible. And then, no, I couldn't do that. I'd feel really weird in that. And then I realized that all I have is my three-year lease...all I have is 29,000 miles in three years. So I mean I hardly drive at all! I mean that's two trips on my driveway!

So the whole thing got to be silly, and Jon said,



“Just go out and buy a car. It’ll be your last anyway.”

And I went *Ohhhhh!* *You didn’t say that to me.*

He said, “Yeah, you’ll drive a few years, and then I won’t let you drive.”

And maybe he’s right.

I remember my father when he turned eighty-some, I wouldn’t go in the car with him, and then he stopped driving. But I’m not that way. I still drive...I like driving. When I go to Europe with my wife, we drive, and I drive, and we rent a car, and I drive all through Europe. And most of our friends that are two-thirds our age don’t do that. You know they’re scared to drive in Europe.

Driving is one of those amazing things in your life. It’s very similar to Google in a way and similar to Google because I remember when I was...I thought I couldn’t ride a two-wheeler and you get on and you fall off, and you get on, and you fall off, and you don’t know how to do it. And then all of a sudden, you’re riding a two-wheeled bicycle. All of a sudden...you don’t know when it happened, but your rid-...and you have freedom. You can do something. Something splits. It’s like the seas part, you know, and you can go somewhere. You have this freedom. And that happens when you drive, and it happens when we sit around the dinner table, and we bring up something. And I said, “No, it’s instead of that.” Or “What is the name of that...?” And I take out my iPhone, and I looked it up on Google, and we find out right away. That’s magic! That’s magic. Do you understand how amazing it is to do that? To think of something, to ask a question and have it there.

I used to be sent away from the dinner table by my father if we were talking about something at dinner, and I didn’t know what I was talking about, he sent me upstairs to look it up in the Encyclopedia Britannica, and that was arduous, so I talked less.

It’s still magic to me that you can ask...and you know this is just the beginning...but that you can actually find out things. Finding out things...finding something is astonishing.

I’m going to tell a story I told this afternoon, but I’ll get into it a little bit deeper. So I apologize to some of the people who were here this afternoon, but this is just appropriate now. I won’t apologize again.

Wurman would go on to buy both a Jaguar and a Bentley in the time since giving this speech.

Larry Page and Sergey Brin’s first public demonstration of the Google search engine was at TED in 1997.

In 1980, Steve Jobs described the personal computer as “a bicycle for the mind.”

Gutenberg's major publication was a Bible, which is referred to as the *42-line Bible*, the *Mazarin Bible* or the *Gutenberg Bible*. The book first appeared in 1455, although it is thought to have undergone production starting in 1454, and there were approximately 180 copies produced, of which 21 complete copies still exist. The book set many of the printing standards for future publications and is still referenced for its quality in production and typography.

In 1397, in Mainz, Germany...they're not absolutely certain of the date. In fact, if you Google it, you'll find two different dates within the Google, but I believe it is 1397...Gutenberg was born in Mainz, Germany. And in 1440, with his brother's help on the press (but mostly himself) he carved out type...an alphabet of 126 letters (that's really very important)...you probably didn't know that, but he did every combination of letters so there's a perfect relationship between each pair of letters. And he did all that adjustment for the whole alphabet in every condition of every letter being next to each other. And he had 126 letters he did. Remarkable! It's never been done better since. John Warnock, who is the founder of Adobe that does type in a speech years ago at TED said, "We've never been able to do as well." We can't do it as well as the original Gutenberg Bible published between 180 and 200 of his 42-line Bible.

The Gutenberg press was like a wine press. It was not a big deal. The big deal was not the printing press because it just printed like a wine press squeezed, but he had to invent the paper because they just had velum. They had to invent paper that squeezed in on the type, and they could lift it off one sheet at a time. They had to invent an ink that was oil based so you when rolled it on, it stayed on the paper while the paper was drying.

Ninety-nine years later, somebody invented page numbers.

Do you realize what page numbers are? It allows you to find something. That's design. That's finding something. That's really innovation. That's not a minor choice...it's not just a good graphic designer – that's the realization that with pagination, you could actually find something.

What the printing press allowed to happen was you could print over and over again the same thing, 180, 200 Bibles did not make for mass communication. They still were terribly expensive. It still was communication only for very wealthy people. What it did was allow you to print a sheet over and over again, and they printed pieces of paper that could be signed by a priest, so it is appropriate to talk about religion here again, and they were called indulgences. That's one of the things that Martin Luther pinned up on the church that he was against in the Catholic Church was the making of money through indulgences, and the indulgences come back to Gutenberg's Bible and the press.

Everything we do has consequences. And, as we spoke today a bit about unintended consequences, you don't know when you design something what it's going to be or where things come from.

We have street curbs all over the place. The main reason for street curbs in New

The first known use of plenary indulgences was in 1095 when Pope Urban II remitted all penance of persons who participated in the crusades and who confessed their sins.

York first was obviously when the wagon came by, it doesn't splash on you. It stops some of the splashing on you. It also stopped you from walking on an absolute carpet of horse shit.

Every city was filled up to the street curbs (which were higher) with horse shit. There was millions of horses around in the good ole' days. And something as innocent as something that's still around that we don't even know where it came from, and it's in every plan, every city, everywhere in the world, you always have this curb. Whether you need it or not, you have a curb.

I began a speech out in the west about two or three months ago that was keyed off the last word of the introduction they did when I took the stage, because they were commenting on something that had happened at the same gathering the year before: a pod of whales traveling up the coast. So I started talking about whales, and I gave some semi-technical, not very interesting things about the sperm whale being about 68-70 feet long, the largest toothed mammal in the world. The head is a third of its body. Its brain cavity is five times the size of man's brain cavity, the largest cavity of any animal that we know. And that the sperm doesn't come from real sperm – it comes from a kind of waxy, oily stuff that is in the head that used to be essential to lighting and heating.

That's why they almost went extinct, and it's still used as a basis of some very expensive perfumes.

But the biggest animal that we know of including all animals that are now dead that we have found so far (including dinosaurs) is the blue whale. And the blue whale is a little over 100 feet long: long and slender, and doesn't have teeth as you know. It just sieves the krill through its mouth, and we don't know very much about them. We don't know where they live exactly. We don't know where they gather exactly. We don't know how they spawn. We don't know very much about the blue whale. The biggest thing: it's like the 777 that went down off of Malaysia. It's something that big. And yet we just don't know much about it. It's strange. The biggest animal, and we don't know very much about it. That's why that's so mysterious and so boring. I mean it's both. It's both.

So that was all. And then I said, but I'm going to tell you something about the blue whale. Its tongue is as big as a bus. Its heart is as big as a Volkswagen. The aorta is so big, you can swim through it. Now there's nobody in this room who goes out to a bar in the next week you won't turn to somebody and tell them that...because it's so interesting. And now you know how big that animal is. You know it in a way that you didn't know it before. It's magic. You know it in a way that you won't forget it. It's not trivial. It's so fundamental that you only understand something relative to something you understand, and you can move on from that. It's that dumb. I mean it's really a dumb thing. It's not. This is not esoteric – this is a fundamental human characteristic of understanding, and if we don't understand it about our cities, the largest invention of humankind, what do we know?

But no two cities in the world do their maps to the same scale or collect their information in the same way or display it in the same way or have legends that are the same.

One city will call an airport open space, another will call it transportation, another will call it commercial, another will call it...whatever they call it. They have 28 different ways of what they call an airport. They have 28 ways of what they call light industrial, heavy industrial, toxic industrial, large, small, this, that, high, steel, open space, how many workers are there. Everything is called something else, so you can't compare one city to another.



Why would you want to do that?

Well, maybe you don't want to do it.

But I do.

And these are not done for you –  
they're done for **me**.

I want to know something relative to something else.

I want to know what Shanghai is relative to São Paulo.  
I don't know what they're *like*. I can't draw you a map  
of São Paulo. Can anybody here sit down here and  
draw me a map of São Paulo? A really big city...bigger  
than Rio in population, and we can't draw a map of it.  
We have no idea about it.

We can't compare it to anything else.

It's the biggest thing going, cities.  
It's what we are.

I've done seven or eight books on medicine. I found that the various fields of medicine don't speak the same language. They call things differently. You don't want to get two people from two different departments operating on you. I mean they literally don't talk the same language.

I interviewed a small particle physicist, and the head of the Juno Mission to Jupiter on stage a year and a half ago, and I said *you look at the periodic tables differently: one just looks at the light elements of hydrogen and helium. All the rest don't matter – they're all heavy. And the other one not only looks at every one of the elements, but is constantly trying to invent new subatomic particles which are new elements, and you look at every single one of them, and you both have different definitions of the word "elegance." Which is a physics term. And you're both physicists!*

People in the same field don't talk the same language.

My obsession is really just trying to have a conversation and think that what I'm saying, you understand, and I understand what you're saying. And our basis is not that kind of communication.

Understanding precedes action.



I interviewed Zeke Emanuel on stage.  
He was the point person for Obamacare, and I said,

*So Zeke, are you looking at all what other countries do in healthcare?*

“No.”

I said, *do you think you might be doing that?*

“No.”

And that was the end of that whole line of questioning.

So I looked at five countries and asked five questions, and I did a wheel. You know, you turn the wheels with holes in it and you can see the different answers.

And use it to ask questions like:  
what’s the maternity leave in your country?  
So The United States is 12 weeks unpaid. Well, okay.  
In India, it’s 12 weeks paid. In Norway, it’s 46 weeks paid. Every country is different, and I called it Fed Med: what federal governments do about healthcare.

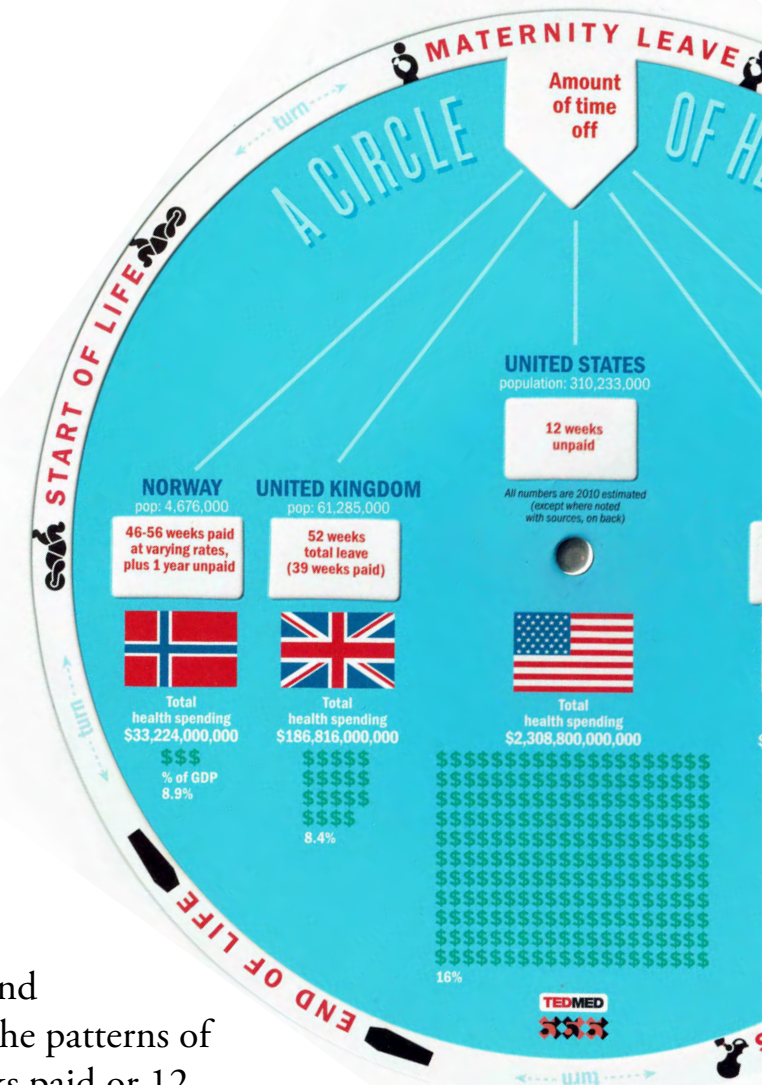
It’s a project of mine now: 50 countries, asking 50 questions, and comparing them. I’m not saying it’s good or bad – just seeing the patterns of what they do. It’s not a value judgment. I don’t think 12 weeks paid or 12 weeks unpaid is better or worse, but I sure would like to know about it.

It would be interesting if you go to the next step and say *what does that cost to do, and what are the implications of it?*

Just a few more questions: simple questions across the board. The same question to each country, not political questions.

Of course, telling the truth is a political act.

And that’s all I’m going to do.



Rupert Murdoch, Australian-born newspaper publisher and media entrepreneur and founder of the global media holding company the News Corporation, became owner of Wurman's two former companies (The Understanding Business (TUB) and ACCESS Press) through his acquisition of Harper Collins in 1989.

I went into see Rupert about three months ago, and he picked up...Rupert Murdoch...and he picked up on that. We were sitting talking. I was asking him to do something about a conference I'm doing called 555, which is going to take place in five cities around the world, with five speakers in each city, 25 speakers in total together. And they're each going to give a prediction for the next five years. So it's called Finding the Future First. And I had the wheel there, and he picked it up and said, "What's this?" And I told him what it was, and he said, "Oh....you could tell the truth and make it political!"

You don't have to slant the truth to make a political statement – you can just tell the truth and it's political. And I thought, "Wow, that's fascinating. I never thought about it that way."

Most things I don't think about until somebody reacts to them. Then I think, *oh, I see now, a pattern that's interesting*. Because I see if I had these 50 countries and you saw what they did that worked well, that'd be interesting to companies because they'd want to sell into that. And if you see thing that didn't work well, that'd be interesting to companies because they'd want to sell into that. Isn't that funny? Both sides of the thing? If it works well, you want to sell into that; if it doesn't work well, you'd want to sell into that. There's an interesting business there in just comparative analysis of information about healthcare which is about 20% of the global GNP. That's a big business.

So with the plans of cities, I thought up this idea called 19-20-21 about 19 cities in the world that have more than 20 million people in it in the 21<sup>st</sup> century (another clever thing), and part of it I brought up something I had done for the Walker Arts Center in 1970 which was called The Urban Observatory. It was part of a book called *\_Making City Observable\_*, one of the Design Quarterly's. I did several of those Design Quarterly's. And...this is a big project. So I called up the same man, Jon Kamen, who runs Radical Media, and he has offices around the world, and he has great talents.

And then I got friendly with a gentleman by the name of Jack Dangermond. He's a terrific guy, a lovely man. He has 2,400 acres up in the hills there, and he grows avocados and oranges, so I get lots of boxes of avocados and oranges and blood oranges, and they're just terrific. And he and his wife run the company – period. There's no second in command. It's an astonishing place. He has 14 buildings, and he hosted me for doing a conference, better than any conference I ever did in my life. Much better than TED, much better than any TED I did and a hell of a lot better than the TEDs that go on now. Really a good meeting.

RSW did his WWW conference in Redlands, California in September 2012



The Esri auditorium stage featured three couches. Two faced each other for the participants, and the third was placed between, where Wurman would kick off the conversation. To the audience's left was a magnificent interpretive glass arrangement called *Macchia Forest* by artist Dale Chihuly, and to their right, a grand piano. The simple and spartan design kept the focus on the people and the dialog they would exchange.

- Esri ARC News

I decided I would go back to the beginning.

What's the beginning? I was telling you about beginnings. How do you start?

What's this basic thing of just talking to somebody. What's the beginning?

What can you take away from things? How do you find the essence of

something. And I drove into San Francisco, and I sold a big, big billboard "San Francisco – the Innovation City." "Honda – the Car of Innovation."

Innovation. Everything is innovation. Every ad has innovation in it. And most of the innovations are just little, tiny changes. Innovation is going to be orange pants. That's innovation. Everything is styling – it's not innovation. I

compare...the joke I make about it is that innovation is putting a camera in the back of a car so you see who you run over.

A few years ago I did a book that still people like. I signed a few copies here, but it's 20 years old, and it still reads alright, called *\_Information Anxiety\_*. And I came to a chapter when I was doing the book. I don't write at all. I can't type. I dictate. I just talk into a dictating machine, and somebody transcribes it. So it all sounds like me talking because it is me talking. I did *\_Information Anxiety\_*, and I got to the this chapter about organizing information.

I thought there must be so many ways.

And I kept on thinking about all the ways, and as I kept on thinking, I could only come up with five, and no matter what I did, I came up with five. And then I talked to some other people, and I said *I think there's just five ways of organization information*. I gave speech after speech after speech. If you tell me there's a sixth, my next speech will be that there's six. This is not scientific, but because I've tried so hard and the book has sold so well, and I've given so many speeches, we'll say there's less than 10. There's five *apparently*.

Taschen just did a big fat book which they asked me to write an introduction for, but I didn't know it was going to be a big, fat book. They just said they were doing a book on information design and would I write an introduction, so I sort of stole some stuff that I had written before, put it together and updated it and gave them this nice introduction. It's a pretty introduction. It was good before, and it got better this time. It's similar to the introduction I did for *Information Architects* I think or one of my books, but similar...it's a little bit better.

Anyway, I sent it to them and I forgot about it. Then I get this big mother book in the mail. I got three copies in the mail. I mean cocktail table book. You know, Taschen does cocktail table books. You can put legs on the, right? And I'm going through and, of course, I see my name big, it's on the cover.

I like that.

Much of it is beautiful examples of information architecture, and of information design. The page that faces the beginning of the back of the book has the word on top LATCH and I said *those sons of bitches - they stole my idea!* But then the whole story about the way the book was organized was about me inventing LATCH, so they're okay.

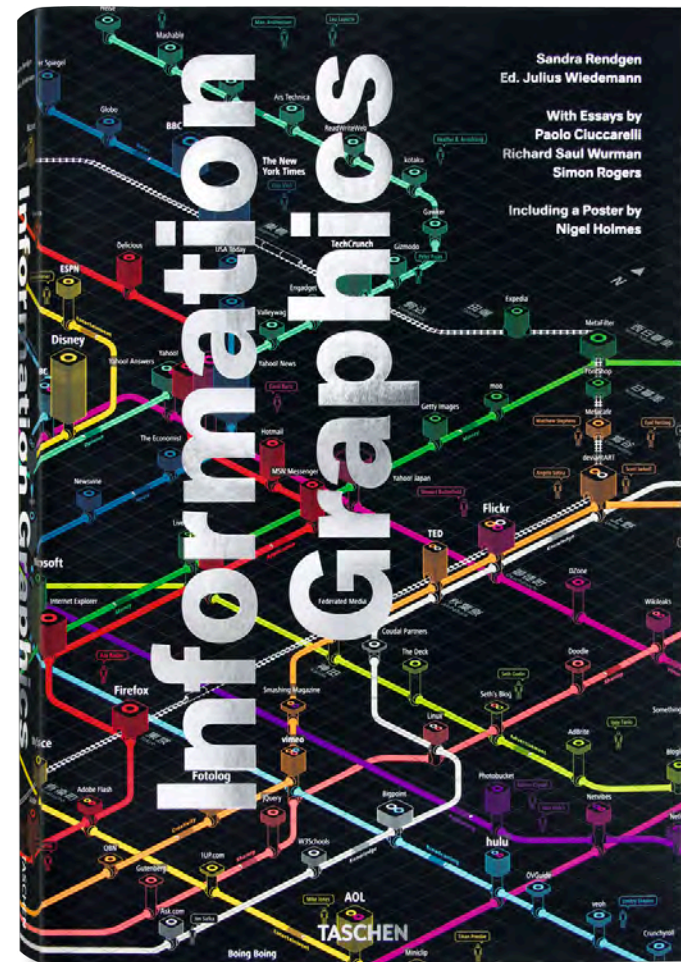
But they made it like science. I mean they made it by...they gave it some credibility. But they didn't ask me, but I'm fine. Somebody's going to think up some other ways, and it will not last. Nothing lasts. Nothing is going to be here.

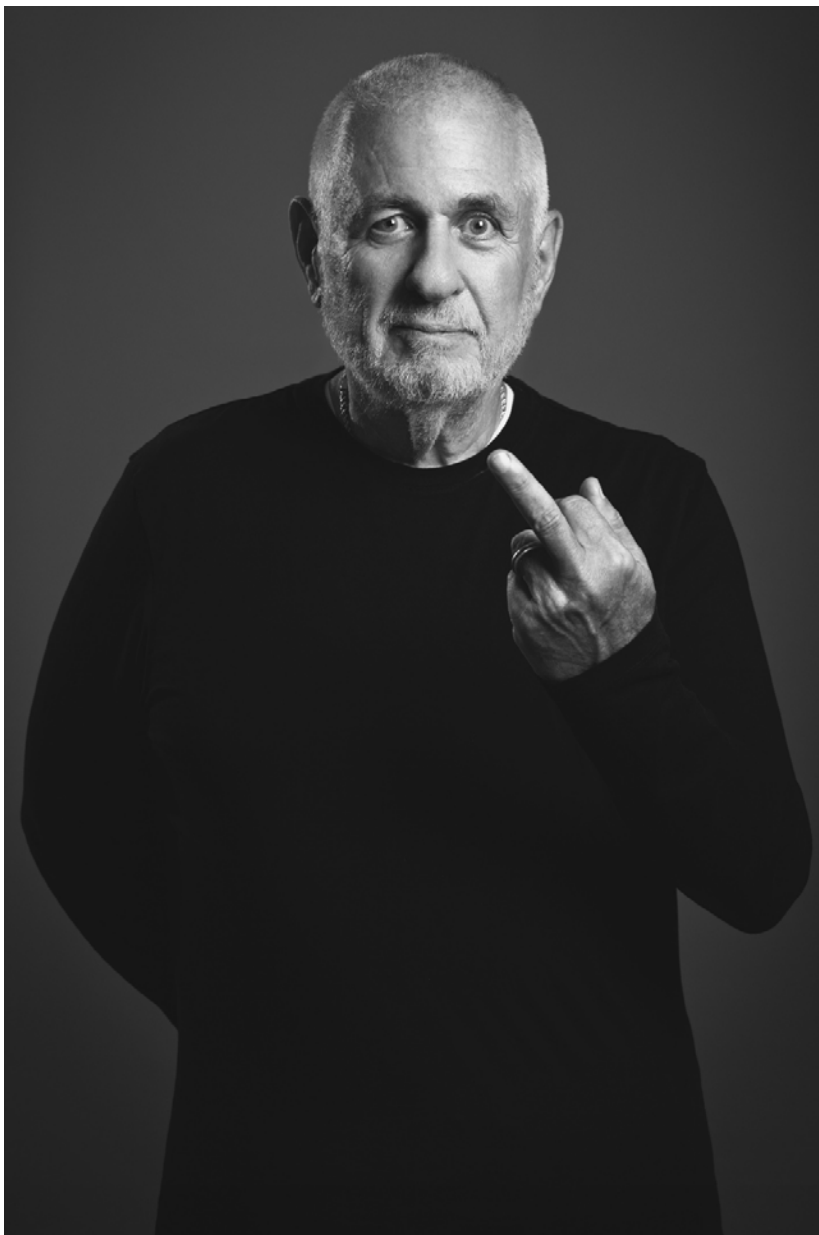
Before I did the third TED, I saw that there was a bunch of Japanese attendees coming to the third TED from the biggest advertising agency in the world (at that time), and they came and we talked. They had heard that this was a great conference. After the second one, they heard it was great, and they wanted to come over. So 18 Japanese executives, and I thought they're just here to play golf because it's near Pebble Beach. No, they played golf, but they did attend some of the conference, and they had little translators talking to them. And they said, "We want to do one in Japan."

Now at the time, we all thought Japan Inc. was going to take over the world, but they (we didn't know) thought all the ideas still come from America, and they wanted this conference because it was like Guess jeans, right?

I lived in New York in a loft, and I know I made a good deal with them. They didn't buy the conference, but they bought me for doing this conference. And so TED 4 was in Kobe, Japan, and I worked on it intensively for the following year. Absolutely the only way I could do the conference...the conference would not have happened...I couldn't have worked with the team in Japan, unless we had a fax machine. And all day we sent faxes and all night because I always work at home, I heard the fax machine going, and they came out rolled up. That's the way they used to be - they used to be on that paper that got warm and rolled up and the whole floor was covered. The next morning people would try to get the right pages together. There would be translated answers to everything I did. I did the whole thing because of a machine. And now nobody uses the fax machine. Something that was absolutely...we needed it.

"I'll fax you." "Fax me!" We don't do it.





It's gone, in the same way your iPhone going to be gone, in the same way that everything else you use is not going to be here.

And the people who have the most difficulty with that are the youngest people here because you can't believe it won't be here.

It isn't going to be here.

Everything  
is going to change.

Everything you know  
is going to change.

So just don't buy into it  
as being always here.

Every "always here"  
thing is not going to be here. There's going to be something  
that just flips something completely differently.

I'm going to be able to soon just talk to you, and I'll be  
talking to you and you will hear Finnish, and you'll answer  
me, and I'll hear English and all you speak is Finnish, and it  
will be that smooth. We'll be able to do that pretty well in  
about five years.

How long have I talked now?  
Because I haven't gotten anywhere.

Just tell me.

[Event organizer]  
Wind down.

The “absolutely unworkable” working title for the book Wurman was working on when he gave this speech would undergo transformation to the number 80 for a time, and then ultimately became 2017’s Understanding Understanding

Wind down.

I’m supposed to wind down. I haven’t touched on anything yet!

I’m doing a book which is...the working title is I Worship the God of Understanding and the Angels of Clarity and Transparency of Source. Absolutely unworkable title, and I’m aware of that. I’m quite aware of that. But it has in it the thoughts I have about the book and maybe the book will just be called Four or something, but that’s my working title. I said *working title*. The angels of clarity and transparency of source is not lying, it’s telling the truth. That’s what that means...in a wordy way...but that’s what that means.

So I’m doing that.

I guess I’m winding down.

I guess that’s enough.

[Applause]

Three questions. Make them good and not speeches. Does anybody have a question? Don’t give me a speech. Please!

Three questions.

[To an audiencemember]

Yes Sir. What are you from?

[Audiencemember]

*I’m from metro Detroit born in India.*

[RSW]

Born where in India?

[Audiencemember]

*Pune.*

[RSW]

Pune: east of Bombay.

[Audiencemember]

*Yeah.*



*So my question is what do you use as your source of inspiration?*

Mel Brooks did a thing called the 2,000-Year-Old Man. Of course, that is foolish because he was talking about cavemen and they were 25,000 years ago or more...but that was the record...you know he did this record and was very famous when they did comedy records, and he was asked in that, “So, you didn’t have buses. You didn’t have cars. What did you use for transportation back then?”

And he said, “Fear!”

“Saber-toothed tiger came, we ran –  
That was our transportation!”

Now ask me your question again.

[Audience member]

*What...same question still but...*

[RSW]

I said, “Ask me the question again.”

[Audience member]

*What do you resort to for your own inspiration?*

[RSW]

**Fear!**

Fear of having an uninteresting life.  
Fear of not understanding something.  
Fear of being a stupid asshole.  
Fear of not being able to explain something.  
Fear of just phoning it in.  
Fear of telling lies.  
Fear.

Discomfort.

Comfort is not your friend.

It is **not** your friend. Even though you were taught that.

Starting off as a private and ending as a general is not the only silo.  
Your silo can fall over, and you can be interested in anything and everything.

The last TED conference I did was in 2002, and my subtext...the subtitle of it was *Simply The Greatest Design Conference That Ever Was*. That's how pompous I was.

And nobody called me on it. Nobody said, "You, pffftttt!" And I had 12 sessions, and each session had a title. I never did this before. I never did it again. I never had titles for sessions. I just decided I would do it that way.

So each session was the design of something. The Design of the Near Future: that's the 555 Conference. The Design of Humor: that's what...humor is an astonishing thing. It's the opposite of expectation. It's a radical alternative. It's one of the most creative things the mind does.

We laugh. We tell jokes which are the opposite of what you think something's going to happen. It's what physicists do for breakthroughs in theory. It's what artists do when they do things. It's a joke.

The Design of Music. The Design of the Car.

I had 20 million dollars' worth of concept cars in the exhibition room that BMW and everybody in the world sent me at unbelievable cost in a circle around, and you watched the conference in the simulcast room if you didn't want to be in the auditorium. Five hundred people sat around the cars and watched the conference, and they could sit in these race cars and these concept cars.

I did it 'cause I could. And I just asked them to send them. I mean this is a trip. This is really exciting. I mean it's playtime. I mean, who gets to play?

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The last TED conference I did was in 2002, and I gave it the subtitle  
**Simply The Greatest Design Conference That Ever Was**

Nobody called me on it

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The last session of the 12, and the last talk of the 12 sessions was Frank Gehry and myself.

It was The Design of your Life. And we just sat and chatted. We didn't show any slides. We just talked to each other because we know each other well. We've known each other for a long time, and that was it.



And then it was over, and I cried.

I'm crying now.

I cried for the people which is the opposite of your expectation because you don't think I'm that person, but I do cry. I cry a lot. And I feel better every time I cry because I know that's...that was good. I'm not such a jerk!

I always worry about being a jerk.

I think design is everything I do. Every movement you make. Every little mudra. Every little thing you do is design. And I like to do it thoughtfully.

Lou said that “Architecture is a thoughtful making of space.” You wanna know...you’re in this room and you feel...you feel how it’s made, and it feels good to know how it’s made.

You feel the making of this space.

It’s a very nice place to give a talk.

[Searching the crowd again]

One more question.

Yes, Sir?

[Audience member]

*What do you want to be when you grow up?*

That’s actually a good question even though he said it sort of... well, he might have meant it, he’ll say that he meant it philosophically.

[Aside to audience member]

Of course you will.

The second book I did on Lou Kahn, of the two, was after he died.

He was the most important person in my life. The second book I did was a number of years after he died. I keep on working on it for quite a while, and it was the book I wanted to have, and it was the collection of all the edited writings and speeches, transcribed all his speeches that I could find. I have 125 hours of his tapes. And then stories about him, I had gone around the world talking to people. Stories not always nice about him. Most of the time okay, interesting, funny stories, stories about his death, his life, his students, his odd life. And then some facsimile pages out of his writings – none of his buildings – and some pictures of him. I had a big collection of photos of him. And I wrote a page and a quarter introduction to the book – that’s all.

And the first line is I think the best line I ever wrote...and the first line said:

*He was the youngest person I ever knew.*

Bye-bye.



Inventor of TED, the one annual gathering that, for 20 years, global business leaders depended on for their edge. 1984 - 2002  
1st Federal Design Assembly conference co-chairman. 1972  
w IVAN CHERMAYEFF

1st conference chairman to hold his breath more than 4 minutes (4:17) onstage. 2009  
w DAVID BLAINE

1st archaeological expedition to Tikal, Guatemala; RSW worked as surveyor and cartographer. 1956

1st ever book on architect Louis I. Kahn written and published at age 26. 1962  
w EUGENE FELDMAN

1st Doubleday trade book entirely typeset and designed on desktop computer. 1989  
w NATHAN SHEDROFF

Inventor of the academic field of Information Architecture. There are now 50+ annual celebrations of World Information Architecture Day, in locations including Tehran, Bangalore, Tokyo and New Zealand.

Inventor of the academic field of Interior Architecture as chair of the department of environmental design at Otis Art Institute Parsons School of Design. 1982

1st conference chairman to filter and then drink his own pee on stage. 1998  
w DEAN KAMEN

1st online publication of comparative cartographic visualization of cities at the same scale with The Urban Observatory. 2016  
w/ ESRI / JACK DANGERMOND

1st public demonstration of the Macintosh personal computer by Apple at the first-ever TED Conference in Monterey, California. 1984  
w STEVE JOBS

1st public demonstration of artificial intelligence in a consumer device by Apple at TED. 1992  
w KAI-FU LEE AND JOHN SCULLEY

1st designer to have three special issues of The Walker Art Museum's Design Quarterly dedicated to their work. 1971 1972 1989

Inventor of the LATCH theory for information organization: Location, Alphabet, Time, Category, and Hierarchy. 1989

1st live concert duet over carbon fiber optical cable between TED4 Kobe and Tokyo, Japan. 1993  
w HERBIE HANCOCK and MAKOTO OZONE

1st public announcement of photophobic life "black smokers" in the ocean. 1999  
w DAVE GALLO

1st publication of comparative cartographic visualization of cities at the same scale with "The City: Form and Intent". 1962  
w STUDENTS AT NCSU