Liberation

Religion beyond Belief

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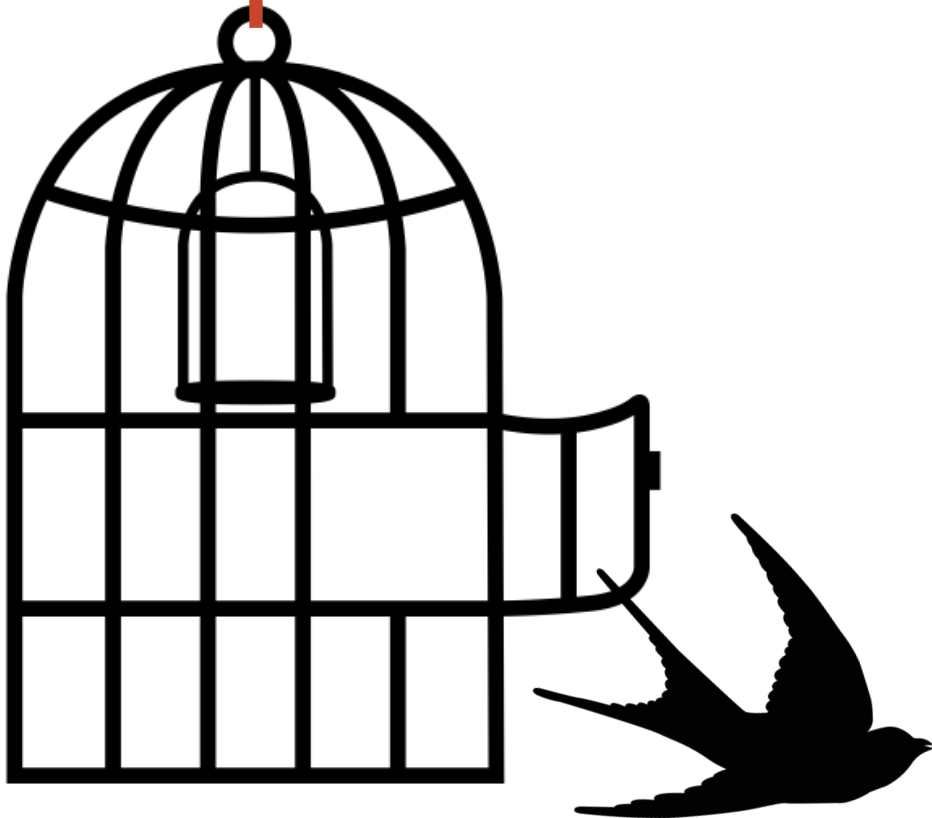
To Noah

Introduction

"Man is born free, and everywhere he's in chains",

Jean-Jacques Rousseau wrote in *The Social Contract*, in 1762, to make a case for democracy.

Did democracy set us free?

You might say that it did indeed—if you think of the times when it was legal to buy and own humans and chain them to the ores of a galley; or of the iconic image of Galilei in house arrest whispering "And yet it moves!" We think and speak and act and pursue happiness as we please—within the limits of the social contract, of course.

But Rousseau wasn't talking about *physical* chains. They are not every-where but rare—compared to those internalized cultural and institutional ones; which bind us ever so strongly *because* they are invisible! Slavery was outlawed when it was *perceived* as untenable; Galilei was arrested to keep a certain way of thinking from spreading—which, however, liberated itself; and changed not only how our ancestors *comprehended* the world but the world itself.

Enlightenment, Scientific and Industrial Revolution and democracy fol-lowed. Could a similarly sweeping wave of change be in store for us *again*?

Can we *again* liberate ourselves—from the kind of **chains** we don't even know we bear?

Could a different way of thinking *again* comprehensively im-prove the human condition?

This humanity's age-old quest—for the **correct** way to use the **mind**, or for **logos** as the ancients called it and as I too will be calling it—has in our time acquired a sense of urgency; because of our civilization's condition. In *One Hundred Pages for the Future*, in 1981, based on a decade of The Club of Rome's research into the future prospects of mankind, Aurelio Peccei—this global think tank's leader and co-founder—concluded:

"It is absolutely necessary to find a way to change course."

Peccei's call to action was to shift focus from material production and consumption to humanistic and cultural pursuits:

"The future will either be an inspired product of a great cultural revival, or there will be no future."

He explained why in *The Human Quality*, in 1976:

"Let me recapitulate what seems to me the crucial question at this point of the human venture. Man has acquired such decisive power that his future depends essentially on how he will use it. However, the business of human life has become so complicated that he is culturally unprepared even to understand his new position clearly. As a consequence, his current predicament is not only worsening but, with the accelerated tempo of events, may become decidedly catastrophic in a not too distant future. The downward trend of human fortunes can be countered and reversed only by the advent of a new humanism essentially based on and aiming at man's cultural development, that is, a substantial improvement in human quality throughout the world."

In 1984, on the morning of his dying day, Peccei dictated to his secretary from a hospital bed, as part of the unfinished *Agenda for the End of the Century*:

> "Human development is the most important goal."

Albert Einstein warned in an interview to The New York Times, in the aftermath of Hiroshima:

> "A new type of thinking is essential if mankind is to survive and move toward higher levels."

> Could "a new type of thinking" be "a way to change course"?

> We developed a different way to think.

I say "we" because I was fortunate to work with constellations of collaborators, who were often creative leaders in their fields; and because we built on insights of visionary thinkers or *giants*, as I'll be calling them; and because I benefited from a tenured position in an academic department that tolerated my *transdisciplinary* transgression for nearly thirty years; and to acknowledge other help I've received.

I'll call our proposal *knowledge federation*; and introduce it to you as follows:

> To justifiably say I *know*, to step over that all-important threshold that separates *believing* from *knowing*, I *must* consider the evidence.

It may *seem* to me that the Earth is flat and I might even **believe** that; but people have traveled *around* the Earth; and others saw it from outer space. When I take account of evidence—I cannot but change my mind.

Notice also:

> I cannot claim that something is **known** unless it's manifested in everyday awareness and action.

Every rational system of thought must ultimately rest upon a fundamental principle or axiom that cannot be argued within that system. ***Knowledge federation*** stems from this single and simple ***knowledge federation axiom***:

> ***Knowledge*** must be ***federated***.

To ***federate knowledge*** means to account for academic results, people's experiences, cultural artifacts and whatever else might be relevant to the theme or task at hand. Political federation unites smaller geopolitical units to give them visibility and power.

> ***Knowledge federation*** does that to ***information***.

> *How* are we to ***federate knowledge***?

> ***Knowledge federation*** *too* is ***federated***!

Instead of only looking at the world as we are accustomed to, instead of relying on books and articles and academic disciplines, and media news and other inherited or ***traditional*** ways—we ***federate*** what we do with information; and create *new* ways to ***knowledge***.

And take *true* advantage of information technology.

While I'll be introducing **knowledge federation** techniques gradually, as we go along, a couple of them you have already seen. The first was the metaphor; this book began with one. In what follows I'll be developing a parallel between the times and conditions when Galilei was in house arrest and our contemporary ones. The metaphor has been identified (by Jean Piaget in developmental psychology, and George Lakoff in cognitive linguistics) as *the* basic building block of human construction of meaning. I use inverted commas when I want to emphasize that something is to be interpreted as a metaphor.

The second technique you've seen is to create custom-defined words and expressions; I call them **keywords**; and distinguish them by writing them in a distinct font.

Ulrich Beck remarked in *The Risk Society and Beyond*, in the year 2000:

> "I cannot understand how anyone can make use of the frame-works of reference developed in the eighteenth and nineteenth century in order to understand the transformation into the post-traditional cosmopolitan world we live in today."

Imagine us in "the risk society"—a society impregnated with existential risks we don't know how to handle; because the still *traditional* way we think and speak prevents us from comprehending the post-*traditional* condition we are in. Imagine us driving into the future while looking at the rearview mirror, as Marshall McLuhan saw us—and you'll easily understand why we *must* create new ways to see, think and speak.

By creating **keywords** we can give old words such as "information" and "culture" a distinct function and a new life. **Keyword** creation is a means to linguistic and institutional recycling.

Often but not always, **keywords** are adopted from the terminology of an academic field, cultural tradition or frontier thinker. They enable us to

account for what's been seen, experienced or comprehended; to 'stand on the shoulders of *giants*' and see further; to see things in *new* ways and see them whole.

Metaphors and *keywords* define specific ways of seeing things; and invite us to *see* things *as* defined.

Did you notice that I've just turned *see as* into a *keyword*?

I'll use it to ask you to flex your mind; because seeing things as other people saw them is *necessary* if we should see them from all sides and see them whole.

Holoscope is *knowledge federation*'s pseudonym; which I'll use to emphasize that it enables us to *see things whole*.

Science too enabled us to see in new ways: The telescope and the microscope enabled us to see the things that were too distant or too small to be seen by the naked eye, and our worldview expanded. But science had the tendency to focus our attention on the things that were too distant or too small to be relevant—compared to those large things nearby; which now *demand* attention.

The *holoscope* permits us to see *any* theme or thing as a whole —from all sides; and in proportion.

What difference will this make?

Neil Postman—who as a professor and chairman of the Department of Culture and Communication at the New York University founded "media ecology" (we *will* 'stand on his shoulders'; but I'll be using Gregory Bate-

son's more general keyword ***ecology of mind*** instead)—observed in a televised interview in 1990:

> "We've entered an age of information glut. And this is something no culture has really faced before. The typical situation is information scarcity. […] Lack of information can be very dangerous. […] But at the same time too much information can be dangerous, because it can lead to a situation of meaninglessness, of people not having any basis for knowing what is relevant, what is irrelevant, what is useful, what is not useful, where they live in a culture that is simply committed, through all of its media, to generate tons of information every hour, without categorizing it in any way for you."

Think of all the spectacles pouring at us through the media. When we look through the ***holoscope*** we see a *different* kind of spectacle; we see *the* vastest and most important event that is happening in our time.

> It is only *in the context of* this mega-event that we can ***correctly*** comprehend the *meaning* of specific events.

I introduced this mega-event to Noah, my twelve-year-old, by calling it the ***elephant***. What *is* the ***elephant***? I sang that question to Noah on the tune of The Fox, which you'll find on YouTube:

> What is the ***elephant***?
> Ring-ding-ding-ding-dingeringeding!
> What is the ***elephant***?
> "Wa-pa-pa-pa-pa-pa-pow!

Noah "knew" the answer: The ***elephant*** is a figurative nickname for ***holotopia***; but that's the sort of "knowing" Noah learned at school.

> To develop *the kind of knowing* we need to be able to see the ***elephant***, and truly ***know*** what goes on in our time—is the next step in evolution of knowledge.

The *elephant* was in the room when the 20th century's *giants* wrote or spoke; but we failed to see him because of the jungleness of our information; and because of disciplinary and cultural fragmentation; and because our thinking and communication are still as the *tradition* shaped them. We heard the *giants* talk about a 'thick snake', a 'fan', a 'tree-trunk' and a 'rope', often in Greek or Latin; they didn't make sense and we ignored them. How differently information fares when we understand that it was the 'trunk', the 'ear', the 'leg' and the 'tail' of a vast exotic 'animal' they were talking about; whose very *existence* we ignore!

To manifest the *elephant* is the task we have as generation.

To show him to our children is the duty we have as parents.

So we did as Postman recommended; and as we shall see in Chapter Nine also Plato, at the academic tradition's point of inception:

We *categorized*.

We identified five *pivotal* categories (I qualify something as *pivotal* if it decisively influences our society-and-culture's evolutionary *course*; and as *correct* if it corrects it):

1. *Innovation*—our so rapidly growing ability to create and induce change; which evokes the analogy with the Industrial Revolution and suggests the question: Where will the *next* quantum leap in efficiency and effectiveness of human work come from?
2. *Information*—which includes the artifacts (such as books and TV news and whatever else may record human experience) *and* the processes by which those artifacts are created and communicated and put to use; which brings to mind the Gutenberg Revolution and suggests the question: What will enable the *next* quantum leap in *knowledge*?
3. *Foundation*—which includes the assumptions, often unnamed and unknown, that underlie our quest of *knowledge* and determine what

is to be considered as worthwhile and true; which reminds of the Copernican Revolution and suggests the question: What will incite the *next* Enlightenment-like change of the way we use the **mind**?

4. *Method*—by which truth and meaning are created; which evokes the analogy with the Scientific Revolution and brings to mind the question: What new way of pursuing knowledge will have similarly sweeping effects?

5. *Ethos*—which orients "the pursuit of happiness" and our other pursuits; and evokes the analogy with the Renaissance and makes us wonder: What values will mark the *next cultural revival*?

When we applied the **holoscope** to each of these **five categories** and the corresponding question, when we **federated** what's been academically reported or in other ways found out about it—*in each case* the result was an insight that toppled the "conventional wisdom"; and demanded that the habitual comprehension of that category be *thoroughly* revised, and its handling reversed.

> *Five insights* resulted.

And showed:

1. How an update of *innovation* can raise the effectiveness of human work far beyond what the advent of machines has made possible

2. How an update of *information* can improve comprehension and meaning—as radically as the printing press improved the *spreading* of documents

3. How an update of *foundation* can help us rebuild culture—in a similar way as architecture revolutionized house construction

4. How an update of *method* can change the way we comprehend life's core themes—as much as science changed the way we comprehend *natural* phenomena

5. How our priorities and values and our very way of being in the world will change beyond recognition—when we base them on **knowledge** instead of **belief**.

And when we used the *five insights* as frame of reference, to illuminate *other* core themes including education, happiness, science, creativity, peace and religion, and democracy, power and freedom—similarly game-changing insights resulted. So we formulated *ten themes* to illustrate that.

Each of the *five insights* points to this single principle or rule of thumb, as the way to implement the requisite updates:

Make things whole.

Holotopia is the vision of a dramatically better cultural and societal order of things or *paradigm* that follows from the *five insights*; which can be actualized by applying this principle. It is also a carefully choreographed strategy and project to make that vision come true.

Holotopia is a practical way to *change course*.

I know: The unfolding of *holotopia* will take time.

But *holotopia* transforms the world also instantly—*by its very existence*!

Margaret Mead wrote in *Continuities in Cultural Evolution,* in 1964:

"We are living in a period of extraordinary danger, as we are faced with the possibility that our whole species will be eliminated from the evolutionary scene. One necessary condition of successfully continuing our existence is the creation of an atmosphere of hope that the huge problems now confronting us can, in fact, be solved—and can be solved in time."

Holotopia supplies that "one necessary condition of successfully continuing our existence"—a *realizable* vision of a *better* future; it changes the *mood* of our engagement with society's dilemmas *and* the future.

Before **holotopia** existed, those of us who are parents were facing the question whether to tell our children the disheartening truth; or better let them live in illusion, for as long as it may last.

We can now tell the truth as *good* news!

I was just talking with Noah about Alizée, the 22 year-old climate activist who tied herself to a tennis net and disrupted a French Open semi-finals game. She had "We have 1028 days left" written on her T-shirt. Some spectators booed and whistled—they came to watch a tennis game, not for climate politics; others remained silent.

Have you seen the movie *The Matrix*? I showed Noah the whole trilogy a few years ago. *The Matrix* depicts a dystopian future where intelligent machines rule the world; and keep us humans in a computer-created "reality", which looks rather like the world we see around us. Like the Matrix, the world we've created offers Noah's generation only two options: To be immersed in a game-like "reality"—of computer games to begin with, and career games later on; *or* to live in a dystopian reality and keep trying to *disrupt* 'the game'. **Holtopia** offers a third option—to *transform* 'the game'.

Holotopia also has this *main* value proposition.

Dennis Meadows (who as a young MIT professor coordinated The Club of Rome's best known study, which resulted in *The Limits to Growth* report; and then continued to research our civilization's condition) reported in 2012, on this report's 40th anniversary event at the Smithsonian in Washington, that sustainable development is *no longer possible*; because we've already *surpassed* what our planet can endure! We are headed toward the "systemic collapse", Meadows diagnosed; where "the systems in

which we live and work" as Bela H. Banathy called them, which I will simply call *systems*, collapse and topple one another like dominos.

> *Holotopia* transforms the dynamic of collapse into the dynamic of renewal.

Experts urge us to focus on making *systems* "resilient", so they won't collapse under pressure. The *holotopia* strategy is to make them pliable, and be *transformed* under pressure; suited to the *functions* they need to serve, in *new* conditions.

> *Holotopia* can turn even "the huge problems now confronting us" into assets!

By making it clear that they compel us—and hence empower us—to take an evolutionary quantum leap in *human quality* and *culture*; by following the *course* the humanity's great teachers have been pointing to.

> *Holotopia* is hard to believe?

I'll put your mind to rest: I don't expect you to *believe* what I say; or even to understand it right away. In the second book of *holotopia* series we'll begin to elaborate details.

> Here I only want to show you around, give you a glimpse of *holotopia* as a whole; and if some of this might interest you, invite you to a conversation.

Which may seem like an easy matter but it's not. What I have in mind is a 5D image of the *elephant* (Noah told me that an X-ray-like picture of an object's inside is now called "fourth dimension"; and we agreed that the fifth dimension could be the timeline of the object's evolution). This im-

age took shape during these thirty years while I thought and practiced and worked in a certain uncommon way, which I'll tell you about in Chapter Two. Try as I might, I've been unable to turn what I see into a linear sequence of words.

> The only way our communication can work is if you engage in it *actively*.

So here is what I'll do: I'll continue to share these snippets, which I call **vignettes**; each of them is a snapshot of (some detail of) the **elephant**. And I'll leave it to you to reflect on them, and see how they fit together and compose the whole big thing. That will turn this book into a puzzle.

While working through this puzzle you'll have a chance to practice this different way to think, this art of **connecting dots**; which you'll need— which we'll *all* need—to be able to see the **elephant**; and **change course**.

I *know* what the people who were touched and transformed by **religion** talk about.

Because I've studied it and practiced it and experienced it and seen it in others. Yet I did not become a believer; I remained faithful to my original creed:

> I am a **scientific fundamentalist**.

By which I mean that I am passionate about what's scientifically fundamental; and about **science** as foundation for **knowledge**; where by **science** I don't mean science as it's been instituted at our universities; but **science** as an organ in the organism of society; and as a tradition and a most valuable body of knowledge. As we shall see in a moment, when we begin to truly *listen* to what's scientifically fundamental—**science** will

transform itself; and become truly *capable* of serving as the foundation for **knowledge**, of *every* kind; at any rate while the human **mind** is elevated to the status of arbiter.

I am for similar reasons vehement about **religion** serving as foundation for **culture**; in this era again, just as it did in all places and periods. I said "for similar reasons" because as soon as we get the **epistemology** right— we'll see that this is necessary; as I'll demonstrate in what you are about to see. I *may* need to make it clear—if it's not already—that by **religion** I don't mean the *institutions* that bear that name; but **religion** as an organ in the organism of **culture**, which had *the* vital role in the world traditions—to uphold **human quality**.

Don't blame **religion** for performing in it so imperfectly.

As we shall see, this is due to factors that have nothing to do with **religion**; which we now can, and *must* alleviate; which **science** must alleviate.

Why is exactly **science** capable of tipping the balance in favor of **human quality** and **religion**?

Because (only) science can bring the **mind** to *their* side.

As Abraham Maslow so beautifully pointed out in *Toward a Psychology of Being*, in 1962 :

"Science, as it is customarily conceived by the orthodox, is quite inadequate to these tasks. But I am certain that it need not limit itself to these orthodox ways. It need not abdicate from the problems of love, creativeness, value, beauty, imagination, ethos and joy, leaving those altogether to 'non-scientists,' to poets prophets, priests, dramatists, artists, or diplomats. All of these people may have wonderful insights, ask the questions that need to be asked, put forth challenging hypotheses, and may even be correct and true much of the time. But however sure *they* may be, they can never make mankind sure. They can convince only

those who already agree with them, and a few more. Science is the only way we have of shoving truth down the reluctant throat. Only science can overcome characterological differences in seeing and believing. Only science can progress."

This book has a core theme.

A *red thread* binds its pages and *vignettes* together. It's what you might expect from a *scientific fundamentalist*:

A *foundation*; or an *epistemology*, as I am calling it.

Not *your* cup of tea? You'll comprehend why *you too* should be interested in *epistemology*—if you just take a moment to consider this foible of nature:

Arguably *the* most complex and intriguing instrument on our planet—the human *mind*—comes *without an instruction manual*!

And consider how much—how *incredibly* much on planet Earth—will depend on how we use this instrument. I emphasize:

On how *we* use the *mind*.

So the only option we really have is to figure out how to use the *mind* ourselves; which we of course cannot do without using the *mind*; which might seem viciously circular. But not if you see it in the context of *evolution*: We use the *mind* to learn about the world *and* about the *mind*; and to manage our affaires. And we take advantage of what we've learned through these processes and *improve* the way we use the *mind*; and this cycle of learning and improvement continues forever.

What I'm calling *epistemology* is that evolutionary feedback loop; and the state-of-the-art 'instruction manual' for using the *mind* that results from it, at any given time.

I call it *epistemology* because "logology" sounds so awkward; and because an up-to-date *foundation* for *knowledge* is its result.

Logos is that state-of-the-art way to use the *mind* that *epistemology* points to.

"One can observe one's own activity of the brain, [and see] that it is really like a computer, that it's been programmed. [...] It is made to conform to a certain pattern."

While I'll be sharing some rather astonishing insights about the *mind* as we go along, here is *the most important* of them all:

The *mind* has an 'ON/OFF switch'.

It's not a 'hardware' switch; the *mind*'s hardware cannot be turn off as long as we are alive.

It is *logos*—the free, comprehending and creative *mind*—this 'switch' can turn off.

You'll see that if you consider the expressions like "My mind just wasn't there!" which we use when we've messed up royally. The *mind was* there; but *logos* was not.

The reason why we must *know* about this switch is that we are about to mess up royally—on a grand, *planetary* scale!

How does the *mind* work when this switch is turned *off*? That's what Jiddu Krishnamurti was pointing to in the remark with which I opened this *vignette*; in his dialog about the future of man with David Bohm, which I'll come back to in this book's closing *vignette*. And since the word "programmed" may seem like premature judgment, made before due evidence has been shared, I'll use the Buddhist keyword *conditioned* instead.

And disarm it even further by adding that nothing is *in principle* wrong with *conditioning*; it's really just our usual or "normal" way to use the *mind*. Words like "habituation" have been used to point out that *conditioning* is largely just learning from experience; and learning from each other. *Conditioning* is, simply, *adaptation*:

> You've touched an open flame—you won't do it again.

Words like "acculturation" and "socialization" have been used to point out that this *mind*'s adaptive function has been instrumental in preparing us humans to take our place in society. "Domestication" and even "breaking horses" you'll see in Western movies may further be used as metaphors to suggest that *conditioning* tends to reduce some of the *mind*'s free movement; and *our* free movement, and make us stay put, as it were. Think about touching an open flame: Not only the *idea* of it feels repulsive—but even *if you try to do it* your arm will disobey you! And if you see *someone else* doing it—you'll correct him and put him in line.

So here is why *we* must liberate ourselves from *conditioning*; even if our ancestors *didn't have to* do that:

> *Conditioning* makes us incapable of *changing course*.

Conditioning is the reason why we shun **knowledge** in favor of **belief**.

To some of my closest friends, religion is little more than belief that resists counterevidence. "Show a religious person a rational disproof", they'll shake their heads in disbelief, "and his belief will grow *even stronger*!" I am about to show you that this has nothing to do with **religion**; that it has everything to do with **conditioning**. We are **conditioned** to believe that *other* cultures have "belief"; and that only *we* know "the truth". And it is only when **conditioning** *changes* that we can see that we *were* **conditioned**.

While liberation is, just like **wholeness**, *inherently* comprehensive (we are not free as long as *any* of our limbs are in chains), and while each of this book's ten chapters will zoom in on liberation *of a specific kind*—you may consider the liberation from renegade, power-related **conditioning** to be its title theme (this *negative* **conditioning** is what I'll be pointing to when I use that **keyword**, unless I say otherwise).

Because the **mind**'s liberation from **conditioning**—the liberation of **logos**—is the key to all other liberation.

There is another reason why you should care about **epistemology**.

Every now and then the evolution of **knowledge** brings to the fore a *different* way to use the **mind**; which then *thoroughly* alters the human condition.
We live in such a time!

When **epistemology** calls for a *different* way to use the **mind**. I suggested that when I talked about Galilei in this book's opening; and I'll demon-

strate it in its chapters. So let me here give you only a glimpse of this *crux* of our matter.

By sharing three **vignettes**.

Which will compose a **thread**, another **knowledge federation** technique; where a sequence of several **vignettes** are strung together to form a higher unit of meaning—typically an answer to a question or an insight into a theme.

The **thread** you are about to see will give you a hint *why* a **cultural revival** based on and aiming at **human development** is now ready to begin and *will* begin—as soon as we give **epistemology** its due.

"It is necessary for the very existence of science that minds exist which do not allow that nature must satisfy some preconceived conditions."

It is of course Copernicus, not Galilei, to whom we owe heliocentricity. And heliocentricity—I hope you'll follow me here—is not an "objective fact about reality" but *a way of looking* at the world; and a matter of choice or a *convention*. Are we not at liberty to put the origin of a coordinate system anywhere we like? So why not place it right in the center of our home planet? And see the outer space exactly as we are accustomed to! The key advantage of heliocentricity is obvious: It made Newton's *Principia* and *science* possible; which then empowered the **mind** to comprehend the world *so* much more exactly! "The mind organizes the world by organizing itself", Jean Piaget remarked.

Also *in 20th century* the progress of science demanded of scientists to update the way they used the **mind**.

I'll come back to this in Chapters Two and Nine; and point to the consequences it will have. So let me here only highlight—that when the scientists became able to observe small quanta of matter-energy, they found them behaving in ways that contradicted what they thought they knew about the world; including the very *assumptions* based on which science had been developed; and even our very *common sense*! Should we not then throw away the results of those experiments as *obviously* wrong?

No, we *must not* do that, Richard Feynman warned in *The Character of Physical Law*, in 1965; from which I quoted a fragment and used it to open this *vignette*. If we do that—*science* will no longer progress:

> "If science is to progress, what we need is the ability to experiment, honesty in reporting results – the results must be reported without somebody saying what they would like the results to have been – and finally – an important thing – the intelligence to interpret the results. An important point about this intelligence is that it should not be sure ahead of time what must be."

Galilei was not arrested for claiming that the Earth moves; that was only a *technical* detail! His "sin" was his claim—on which the advent of science depended—that when human reason contradicts the Scripture, or tradition or *belief*, it is legitimate to give it priority. I'll use *phenomenology* as *keyword* to remind you of this update to the way we use the *mind*; which, as Feynman pointed out, made the 20th century physics possible:

> When experience contradicts the reason, or taken-for-granted theory or worldview—it is legitimate to give it priority.

This second *vignette* will show that *phenomenology* allows for a new *kind* of causal relationships or 'natural laws' to be seen and comprehend-

ed and given citizenship rights; which link the pursuit of *human quality* as cause with a certain deep transformation of one's thinking and experiencing as consequence. Aldous Huxley demonstrated the existence of one such 'natural law' in *Perennial Philosophy*, in 1945.

The Huxley family gave several leading British scientists; Aldous had a different *kind of* science in mind; which he introduced as follows:

> "But the nature of *perennial philosophy* is such that it cannot be directly and immediately apprehended except by those who have chosen to fulfil certain conditions, making themselves loving, pure in heart, and poor in spirit. Why should this be so? We do not know. It is just one of those facts which we have to accept, whether we like them or not and however implausible and unlikely they may seem. […] It is by making physical experiments that we can discover the intimate nature of matter and its potentialities. And it is only by making psychological and moral experiments that we can discover the intimate nature of mind and its potentialities."

When the *experiences* reported by those "who have chosen to fulfil certain conditions, making themselves loving, pure in heart, and poor in spirit" are considered together, Huxley showed in *Perennial Philosophy*—across geopolitical regions, historical periods and cultural traditions—we cannot but conclude that they saw the world similarly; and also *experienced* it similarly.

> They saw the world as an interconnected, living whole; and themselves as its integral parts; and they experienced an abundance of love and joy, which was overflowing.

This third *vignette* will suggest that the fountainhead of the world's great religions was not our ancestors' belief in the supernatural, as it is believed—but their *experience*, direct or indirect, of the mentioned natural law and its effects.

Every day at 5:30 AM, after the morning meditation, at the Suan Mokkh forest monastery in Southern Thailand (which I'll say more about in a moment) we chant this line from *Ovadapatimokha Gatha* (Verses from the Chief of Exhortations), first in Pali and then in English:

> "*Nibbanam paramam vadanti buddha*" (all awakened ones say *nibbana* is supreme).

"*Nibbana*" (the Pali word for "nirvana") is what the "awakened ones" (those who have "chosen to fulfil certain conditions") experienced as a result of practice; they *all* qualified it as "supreme".

And we don't need to go all the way to Thailand or India to find similar evidence; here's how C.F. Andrews portrayed the mood of the original *Christian* community in *Sermon on the Mount*:

> "[The disciples of Jesus found out] that the Way of Life, which Jesus had marked out for them in His teaching, was revolutionary in its moral principles. It turned the world upside down (Acts 17. 6). (…) They found in this new 'Way of Life' such a superabundance of joy, even in the midst of suffering, that they could hardly contain it. Their radiance was unmistakable. When the Jewish rulers saw their boldness, they 'marveled and took knowledge of them that they had been with Jesus' (Acts 4. 13). (…) It was this exuberance of joy and love which was so novel and arresting. It was a 'Way of Life' about which men had no previous experience. Indeed, at first those who saw it could not in the least understand it; and some mocking said, 'These men are full of new wine' (Acts 2. 13)."

A similar message reaches us from the biography of Muhammad that Martin Lings wrote; also based on the earliest sources.

Let me show you something interesting.

Visit *The Britannica*'s online collection of articles about moral philosophy (topic: ethics-philosophy) and take a moment to explore them. You'll see a succession of historical authors, definitions and theories. What did Niccolò Machiavelli, for instance, have to add to our understanding of morality? Or Ayn Rand? When you've examined those articles, you might feel that every *conceivable* view is represented. And yet something *essential* is missing.

Science is not there!

The accounts of *experience* of those who have chosen to conduct "psychological and moral experiments"; and the conclusions of those who have chosen to **federate** their experiences. The reported views are results of *speculation*, not experimentation!

"All professions are conspiracies against the laity",

George Bernard Shaw warned. Ironically, moral philosophy is no exception. As academic disciplines tend to, moral philosophy conspires against the laity in two ways:

- by excluding the outliers
- by overloading us with theories—and leaving us with no clue how to *live* ethically.

In his 1969 MIT report and call to action—to institute academic **transdisciplinarity**—Erich Jantsch quoted Norbert Wiener, the iconic progenitor of cybernetics:

> "There is only one quality more important than 'know-how'.…… This is 'know-what' by which we determine not only how to accomplish our purposes, but what our purposes are to be."

I have suggested by talking about moral philosophy as example:

> An academic discipline *cannot* provide us **know-what**.

The **system** that empowers us to use the **mind** to seek **knowledge**, the **information** that liberates us from **conditioning** and **belief** and illuminates the **course**, must *combine* disciplinary and other evidence; it must *transcend* academic and cultural fragmentation; it must *communicate* to the public with the authority of science—in ways that are far beyond the modalities of reaching out that sciences have been able to manifest.

> The media informing, such as it is, won't do either.

In the circle around Doug Engelbart, which I'll tell you about in Chapter Seven, I met a young Swede named David Norfors; who was developing "innovation journalism" at Stanford University; who told me that just about the only revenue model that remained to journalism, in the world with abundant free information, is what he and his colleagues call "attention economy"; which is not at all what you might imagine when you hear those words:

> Attention economy does not *economize* our attention as **pivotal** resource.

This revenue model is to *captivate* the attention of viewers or readers—in whatever way this could be achieved—and then sell it, as a commodity, to advertisers!

This could be a good moment to tell you what we actually *did*.

I said we "developed" a different way to think; but what does this mean *concretely?* How can one *develop* a way to use the **mind**? I'll introduce the answer by another **vignette**.

The *Visions of Possible Worlds* conference, which was organized by the Faculty of Design of the Politecnico di Milano and the Triennale di Milano in 2003, invited its participants to contribute visions of a sustainable or better world that are possible or realizable. With consistency that surprised me, the presenters pointed in the direction that Aurelio Peccei asked us to focus on.

My presentation had only one slide.

Which had a drawing of a bus with candles as headlights on its left, a drawing of the same bus with lightbulbs as headlights on its right, and an arrow pointing from the former to the letter. The buss had "modernity" inscribed on its license plate.

I introduced my proposal as follows:

"The vision I intended to share involves the change of focus from material production and consumption to humanistic and cultural pursuits and values—from which a change of design, and of everything else, will naturally follow. But being here with you these two days I ended up feeling that my vision has *already* become reality! One after another you've been depicting various facets of my vision more eloquently and more artistically than I'll be able to (my background is not in art and design but in science and engineering). However I know—*we all* know—that the larger

community does not share our vision. This here is an elect group; outside of these walls the world has not changed. The people out there are still busy pursuing the old Industrial Age goals. So the question remains *How* can we make our shared vision possible or real? How can we spread it *beyond* these walls? As Chris Ryan said at the end of the session yesterday, we all agree what needs to happen; the question remains *How* to make it happen? My talk will be focused on *that* question; I'll propose to you a *concrete strategy*."

I explained that the bus on my slide represented our civilization or **culture**; that its headlights represented our **information**; and I proposed *this* strategy:

"What we've been talking about these two days is a *revolutionary* change—first of all of awareness and values; and then of design. What is the strategic object that every revolution must secure? It's the TV station! Even *armed* revolutions must have information under control; and yet in our revolution of awareness we seem to have forgotten information; given a bit more time, I could show you that information is in the hands of our enemy."

Do you see my point? My audience at *Visions of Possible Worlds* didn't. It's proven to be difficult to my academic colleagues to fathom that all our conferencing and publishing, all our good work and insights—might amount to naught!

Because our communication line with the world is broken.

Because there is nobody on the other end listening.

Indeed—when we examine the **system** we academic people use to do our job—we see that *it has no* communication line with the world; that we are indeed only talking *to each other*.

Because of this grave *systemic* oversight, *knowledge* is no longer possible; *logos* can no longer be used.

You'll now easily comprehend *what* we developed, and why:

It's those 'headlights'.

We developed a *prototype* of the socio-technical 'lightbulb'.

Prepared to turn academic and other evidence into 'light' that illuminates the *course*.

Our *prototype* includes a carefully choreographed plan *how* to substitute 'lightbulbs' for 'candles'; which is already in implementation.

Which *you are already part of* by reading this book.

Our ancestors had all sorts of fundamental *beliefs* —which the 20th century science and philosophy disproved and disowned; they believed, for instance, that the pursuit of knowledge should result in "a reality picture" which is "objectively true" and hence unchanging. So they conceived the *system* of science as a way to extend "the scientific worldview" piece by piece, as one would be completing a jigsaw puzzle. And they conceived the *system* of public informing as "objective" reporting of events—which are happening somewhere in the world.

Knowledge federation is a *transdiscipline*; which is a *system* of a completely new kind.

Knowledge federation re-conceives *information* as a human-made thing for human purposes; and tailors it to the *functions* it needs to fulfill in human *systems*; so that *they* can be functional or sustainable or *whole*.

I wrote in the "Design Epistemology" article (where the **foundation** for this approach to **information** was put on academic map):

> "A century ago, a profound change was under way in the arts: An explosion of styles and techniques, and of creativity, resulted when the artists challenged the assumption that the purpose of art was to mirror reality by emulating the techniques of Old Masters. A similar change is now possible—and [...] also called for—in [all **information**], and in particular in the sciences. The 'modern science' that [...] may result from this transformation, will however not be an academic equivalent of *l'art pour l'art-ism* but on the contrary—a way to make the positive difference that [**information** and **knowledge**] can and need to make in this age."

> **Transdisciplinarity**, as modeled by the **knowledge federation prototype**, is a **paradigm**.

I use this **keyword** as it is usual—to name a coherent order of things where everything depends on everything else, as an elephant's organs do; and also, more technically or academically, as Thomas Kuhn did—to point to

- a new way to conceive a *domain of interest*
- which resolves the reported *anomalies*
- and opens a *creative frontier* to research and development.

The *domain of interest* here is not a traditional academic field, where **paradigm** shifts have been (as Kuhn demonstrated) relatively common—but **information** and **knowledge** *in general*.

The bus with candle headlights metaphor suggests *how* **knowledge federation** reconceives and recreates **information**, as I have just explained.

Kuhn left us another useful keyword, "incommensurable"; *paradigms* are incommensurable when they *complement* each another; when they serve *distinct* function.

> The function of the discipline is to create information in its domains of interest.

> The function of the *transdiscipline* is to make information *useful*.

In their quest for the ultimate reality description, the sciences have been evolving toward detail and nuance and in effect—growing downward; *knowledge federation* aspires *upward*—toward elementary *knowledge* of life's core themes. Surprisingly often, the evidence it needs to *federate* to reach its aim turn out to be *the* basic insights of academic disciplines; reached a half-century or more ago; which are *still* waiting to become (common) *knowledge*.

The anomalies that *transdisciplinarity* (as modeled by *knowledge federation*) undertakes to resolve are numerous and diverse; you'll meet many of them on these pages. I'll here highlight only one—which Neil Postman pointed to in his 1990 keynote *Informing Ourselves to Death*:

> "The tie between information and action has been severed [...] we are glutted with information, drowning in information, have no control over it, don't know what to do with it."

The creative frontier that *transdisciplinarity* opens up to research and development extends all the way to the horizon. You may begin to explore it by asking the question the Modernity *ideogram* points to:

> What *should* *information* be like to make "the difference that makes a difference"?

Having found ourselves on a domain of creative opportunities and challenges immensely larger than what we ourselves could develop, we worked in the manner of prospectors—and endeavored to chart it and structure it by creating *prototypes*; and in that way enable and streamline large-scale development.

> *Prototypes* are to the *transdiscipline* as traditional publications are to disciplinary sciences.

Prototypes restore the broken tie between *information* and action; they give *information* the power to make *the* difference—by updating *systems*.

A *prototype* is a model, functioning in reality, which serves as
- a *template*, exhibiting a collection of challenge–solution pairs, or *design patterns* as I am calling them; and showing how to *combine* those *design patterns* in a coherently functioning whole
- an *intervention*, strategically designed to alter certain conventional practice or *system*
- an *experiment*, showing what in the proposed design works well, and what needs to be improved.

The *knowledge federation prototype* has been conceived in terms of about forty smaller *prototypes*; which model *new* ways to implement all those various parts and functions that constitute a discipline—ranging from *epistemology* and *methodology* to a community of state-of-the-art experts and examples of application. Together those *prototypes* compose a coherent *whole*—a *prototype* of a functioning *transdiscipline*.

> This book's ten chapters will display a lavish variety of *prototypes*.

> A *prototype* is not complete unless it has a clear, realistic and functioning impact model.

The *knowledge federation prototype* includes a simple and effective method for updating *systems*: A *system prototype* is created, and a *transdiscipline* around it to update it continuously; and to strategically change the real-life practice or *system*.

System prototypes in the *knowledge federation* portfolio illustrate what journalism or public informing may need to be like if democracy is to have vision; what academic communication may need to be like if research is to have impact on public opinion and importantly, on public *action*; and *most* importantly—what education may need to be like to empower our next generation to create a *different* world!

> *Knowledge federation* develops the *transdiscipline* by developing itself.

> *Holotopia* is *knowledge federation*'s proof of concept application *prototype*.

It shows that when these new 'headlights' are installed and put to use—a different and *better course* will be seen and followed.

> Zooming in on a specific technique—the *ideogram*—will illustrate what all this means practically and concretely.

According to dictionary definition, an ideogram is an images that represents an idea; but (*knowledge federation*'s) *ideograms* are *a lot more* than that! You'll comprehend what I'm talking about if you consider this *obvious* fact; which has fallen on the blind spot of our culture's eye:

> Culture is *transmitted* through *conditioning*.

We don't *reflect* about basic lifestyle and other choices; we assimilate them *through the body* while growing up. So the key questions are (not whether there *will* be **conditioning**, but) *How* is **conditioning** conceived? *Who* is doing it? And *for what motives*? The existing **knowledge federation ideograms** are rudimentary **prototypes** and mere *placeholders*—for a *variety* of techniques.

> Which are to be developed through judicious use of new media technology.

Fredrik Refsli—an uncommonly gifted young communication designer—crafted all our **ideograms**; and all our other communication including this book and the **knowledge federation** website and my blog; and most recently the *Noah and the Elephant* video trailer for the **holotopia** initiative; and over the years, a whole series of 'models' of the **knowledge federation**'s iconic Modernity **ideogram**—that bus with candle headlights.

I am not telling you about Fredrik to give him credit; we don't claim credit for any this work: Something was ripe to be put together—and we just happened to be around. I am talking about Fredrik to highlight the *function* he represents in our **transdiscipline prototype**; which is the function that communication design must fulfill in a **transdiscipline**; which traditional academic publications *cannot* fulfill:

> To *communicate* to the public.

Years ago—when Fredrik was still a graduate student of communication design at the Norwegian Academy of Art and Design—we arranged a meeting with the dean of design and the leader of Fredrik's graduate program, who was also his advisor. Fredrik pulled a cardboard circle out of his pocket (which represented the academy), and I produced a rectangle (which represented the University of Oslo); we put them together on the table in front of those two men, so that they composed an "i", and gave them our proposal:

> We are here to put the circle and the rectangle together.

In our repertoire of *ideograms*, the circle (or dot or *point*) on top of a *rectangle* constitutes the Information *ideogram*; which explains the principle of operation of the 'lightbulb'. Our invitation was to develop a joint program or *system*—where (instead of working for advertising agencies or media moguls) the communication designers would add the *point* to the *rectangle* (all those pages of academic manuscripts); and communicate to the public *the point of it all*.

Fredrik was not only (recommended to me as) the premier communication design student; he was also the leader of the academy's student organization; *and* he was writing a thesis about the changing role of design in contemporary world. I am telling you this to highlight the all-important *political* side of Fredrik's function in *knowledge federation*:

> To claim back communication design and new media from (commercial and superficial interests that constitute) the counterculture.

> And turn them into instruments of *awareness*; of *positive* (functional and evidence-based or *knowledge*-based) *conditioning*.

> So that the media can become *functional* "extensions of man"— as Marshall McLuhan recommended.

I said that *knowledge federation* grows information 'upward'—toward metaphorical mountain tops or *key points*; from where we can *see things whole*. Imagine now *the key point*—the overall *point* of it all; what we the people above all need to know—to comprehend the time we live in *correctly*, and be able to *change course*.

> What might be this *highest key point*?

And how would we communicate it?

In *Guided Evolution of Society*, in 2001, systems scientist Béla H. Bánáthy surveyed a broad range of sources; and summed up an answer in a truly **holotopian** tone:

> "We are the first generation of our species that has the privilege, the opportunity, and the burden of responsibility to engage in the process of our own evolution. We are indeed chosen people. We now have the knowledge available to us and we have the power of human and social potential that is required to initiate a new and historical social function: conscious evolution. But we can fulfill this function only if we develop evolutionary competence by evolutionary learning and acquire the will and determination to engage in conscious evolution. These are core requirements, because what evolution did for us up to now we have to learn to do for ourselves by guiding our own evolution."

To foster the awareness of this opportunity and responsibility, and help develop "the will and determination to engage in conscious evolution"—is the communication challenge the Modernity **ideogram** is pointing to.

Not the picture alone—but combined with two keywords.

We defined **tradition** and **design** as two alternative ways to **wholeness**; analogous to evolution and creation. **Whole** things can evolve by **tradition**—by trial and error and gradual improvement; *or* they can be **designed** from scratch. **Tradition** and **design** are cultural **paradigms**; they are two distinct ways of being in the world, and of using the **mind**.

The Modernity **ideogram** points to their difference.

Nobody in his right mind would *design* a bus with candle headlights; the only way such an uncanny error could develop and remain unnoticed is if the people who created this strange vehicle never even *considered* the

options; if they simply *adopted* the source of illumination they had— which had been developed by using an out-of-date technology, to suit a completely *different* function; as the *traditional* people would.

If they **reified** candles as headlights without giving this matter a thought!

I can now explain to you the **point** of the Modernity **ideogram** precisely:

We are no longer **traditional**; and we are not yet **designing**.

We are living in a transition—still unconscious, still unguided—from ***tradition*** to ***design***. Where the evolution of *some* of our ***systems***, powered by technology, has acquired breath-taking speed; while others—notably our ***information*** and our ***culture***—(I'll define these two ***keywords*** in Chapter Nine) fell behind; and are now *inadequate* for the functions they need to serve.

So what is to be done?

Banathy gave us an answer: We must "initiate a new and historical social function: conscious evolution"; which we can do "only if we develop evolutionary competence by evolutionary learning".

We *operationalized* his call to action; and simplified it a bit:

We must learn to ***see things whole*** and to ***make things whole***.

"In sociology, the iron cage is a concept introduced by Max Weber to describe the increased rationalization inherent in social life, particularly in Western capitalist societies. The 'iron cage'

thus traps individuals in systems based purely on teleological efficiency, rational calculation and control."

One last little curiosity about *epistemology* I'll highlight, for now, is its *political* side.

This book has a villain.

Who is not a dictator or a clique of conspirators or any of the entities we've been accustomed to see as threats to freedom and potential enemies.

I call him *power structure*.

And introduce him to you by the above excerpt from Wikipedia. The *power structure* is not a physical entity but a *structure*—comprising *systems*, *human quality* and the way we use the *mind*; as Max Weber pointed out more than a century ago, at sociology's point of inception.

It is easy to see why *systems* (in which we live and work) have power: They determine *how* we live and work; and by organizing us in work, they determine what the effects of our work will be—whether we'll be creating problems, or solutions.

But *systems* alone are powerless!

Since they are human creations, we would easily *recreate* them—were it not for the fact that they educate us and inform us; and determine what we must do and how we must *be* to be "successful", and be *able* to live and work.

Systems are our *ecology of mind*.

We'll come to comprehend the *power structure* and its consequences in Chapters Seven and Eight, by *federating* insights of *giants*. One of them

will be Pierre Bourdieu, a sociology *giant*; who wrote in an essay translated and published in *Language and Symbolic Power*, in 1991:

> "Symbolic power is that invisible power which can be exercised only with the complicity of those who do not want to know that they are subject to it or even that they themselves exercise it."

Bourdieu explained:

> "Symbolic power – as a power of constituting the given through utterances, of making people see and believe, of conforming or transforming the vision of the world and, thereby, action of the world and thus the world itself, and almost magical power which enables one to obtain the equivalent of what is obtained through force (whether physical or economic), by virtue of the specific effect of mobilization – is a power that can be exercised only if it is *recognized*, that is misrecognized as arbitrary. This means that symbolic power [...] is defined in and through a given relation between those who exercise power and those who submit to it, i.e. in the very structure of the field in which belief is produced and reproduced."

Power has morphed in modernity; prisons, chains and torture chambers have been rendered obsolete. By wielding *symbolic power*, by *being* "the field in which belief is produced and reproduced"—the *power structure* can make us act contrary to our interests; contrary even to the values we consciously uphold.

By *conditioning* our *minds*, *power structure* circumvents the checks and balances that the founders of modern democracy were able to conceive of—who, in the spirit of Enlightenment, saw us as rational decision makers; and designed the social contract and the *systems* that implement democracy accordingly.

By looking at freedom and democracy in this new way, through the *power structure* lens, we'll be able to see that the revolutionary changes we've been through since Galilei's time didn't *really* liberate us.

That only one *power structure* replaced another.

We'll then also *see* the historical conflict between science and religion *as* struggle of *power structures*; and that (liberated) *science* and *religion* are *both* necessary for our complete liberation and ascent to *wholeness*.

David Bohm warned:

"As long as a paradox is treated as a problem, it can never be dissolved."

That the *power structure* can *condition* us to think and act as it suits *its* interests is not a problem but a *paradox*.

Which turns *all* our "problems" into *paradoxes*!

Resistance is futile; no prisons are needed and no censorship; what fails to fit the 'program' (the *paradigm*) is simply *ignored*! Ample evidence will be shared on these pages; the lineup of *giants*, insights and facts that remained ignored is what's *truly* beyond belief!

The *dialog* this book is part of is a *prototype* of a *new system*.

Whose function is to dissolve the *paradox*.

And enable *culture* to continue evolving.

From the soil we extract minerals and turn them into material objects; and ultimately into waste and pollution. It has been estimated that our ecological footprint is *already* 60% larger than our planet can endure.

As water was drying out some water animals developed new genes; which enabled them to breathe and move on dry land. That is, science taught us, how *natural* evolution progressed; and as Richard Dawkins pointed out, it is a good way to understand *cultural* evolution too; only there we must talk about **memes** instead of genes.

> *Materialism*—our way of being in the world—is 'drying out'!

> What **memes** will enable us to 'breathe and move on dry land'?

For the reasons I just explained—instead of offering you an answer, I'll conceive the **dialog** as a way to **federate** a single **meme**; and by doing that, **prototype** a **system** that can **federate** vitally important **memes**.

A **prototype** is also an experiment; if this doesn't work, we'll come up with something else. But in this first draft—I thought we'd focus on *religion*. Not religion understood as one of the institutions we associate with that word, nor religion as a system of **belief**; but **religion** as a **system** within the **system** of **culture**—which had and needs to have again a certain specific function. The idea is to **federate**—from the heritage of the world religions, and from the sciences and whatever other sources of evidence may be relevant—what we need to know about this function; and bring **religion** back to life.

> By making a case for **religion**, we'll create a way for other culture-transformative **memes** to acquire citizenship rights.

One of the reasons why **religion** seemed like a suitable theme to begin with was that—as you will see—the function we'll associate with it is *exactly* the one that will make *the* difference that must be made; another reason was that religion—unlike epistemology and urgent contemporary

issues—tends to evoke passionate responses on both ends (pro *and* con) of the spectrum of **belief**.

The final reason for choosing **religion** was fundamental.

When Nietzsche diagnosed "*Got ist tot*" (God is dead), he did not of course mean that God *physically* died; but that the **foundation** on which **religion** stood was no longer there; that **religion** was about to be eroded.

But was it only **religion**?

Was not **culture** *as a whole* standing on that **foundation**?

I was intending to be bold.

When I first wrote this book's title and subtitle, I was planning to say— really as a truism, as 'the king is naked' sort of thing—that religions as we know them are *not at all* what their founders intended; that **religion** necessitated *societal* transformations—which the **power structure** obstructed. Just think about it: How many people do you know who actually *practice* 'turn the other cheek'? So I thought I'd propose that instead of lamenting the loss—we focus on reviving and **federating religion**; and use revived **religion** to restore **human quality**; and have the renewed **human quality** dethrone the **power structure**—and help us create a just and humane and *truly* free and **whole** society.

I changed my mind.

Religion has suffered so much under **materialism** that I just couldn't risk adding insult to injury!

It will serve us best to be concrete.

And focus on a *specific* case; which will in a fractal-like way display the *structure* of the vast and contentious compendium of issues that is opening up in front of us.

This book has a hero.

He is Buddhadasa, Thailand's holy man and Buddhism reformer; who after renouncing secular life in 1926 and spending a couple of years in monasteries in Bangkok thought *This just cannot be it*! Armed with some ancient Pali scriptures and firm dedication, Buddhadasa withdrew to an abandoned forest monastery near his native village Chaya in Southern Thailand, to live and practice as Buddha did.

Having found out by experimenting, first on himself and then with a community of monks that grew around him, that the essence of Buddha's teaching is not the belief in afterlife as it is believed but comprehensive liberation, which includes liberation from *belief*—in 1932 Buddhadasa founded a forest monastery called "Suan Mokkh" (The Garden of Liberation).

And having also found out, by reading the scriptures of other religions and dialoging with their adepts, that religions tend to have a common essence that tends to be likewise ignored; and that we modern people *necessitate* that essence to be able to liberate ourselves from *materialism* and *change course*—Buddhadasa saw it as his duty to do whatever he could to share his insight with the world. The Suan Mokkh forest monastery got a library, where monks and visitors could inform themselves about the way to liberation; and a workshop, where monks could render it as paintings and sculptures. Spiritual Theatre was built to exhibit their works; and to explain the way to liberation in whatever media were available to monks in a Thai forest in the 1950s.

Not long before he'd pass away in 1993, Buddhadasa created the Suan Mokkh International Retreat Center as an educational facility—where visitors from around the world could learn Buddha's way to liberation; and

the Suan Mokkh International Monastery as an experimental facility—where they could live and practice as the Suan Mokkh monks did; and as Buddha and his disciples lived and practiced centuries ago; and 'repeat the experiment'.

In this book I'll be *federating* Buddhadasa's insight; and I'll invite you to join me in doing that in the *dialog*.

And in that way co-create a *system* that will dissolve the *paradox*; and rebuild *culture*'s *foundation*; and ignite *cultural revival*.

We were transported by automobile from the Suan Mokkh international monastery to the Walailak University in a neighboring province; where about one hundred students were waiting to hear Ajahn Medhi's speech ("Ajahn" is the title given in Thailand to advanced and respected monks, who are qualified to teach others.) It was Sunday afternoon, and his speech was to conclude an intensive weekend course called *Know thyself*.

I was asked to speak first; and naturally, used the opportunity to set the stage for Ajahn's talk.

Introducing myself briefly, I said I was a professor in Norway "where the soil is now frozen and my students wouldn't *dream* of going around barefoot as you do". And that I came to Suan Mokkh every year around Christmas, to study and practice under Venerable Ajahn Medhi as teacher and abbot. I explained that a discovery was made at Suan Mokkh that could make a difference in the world; and that I took it upon myself to learn and embody it, and help it reach out further.

Venerable Ajahn Buddhadasa, I elaborated, considered his discovery to be an antidote to the global onslaught of materialism. And I asked for a

show of hands: "How many of you believe that materialism *can* be stopped?"

I looked at the students while I spoke. Aside from being barefoot and seated cross-legged on the floor, aligned in straight rows and columns, they looked just like the students in the USA or Norway or any other place where I had taught—with Western-branded T-shirts, cellular phones and all. A handful of them dutifully lifted their arms; even here, in Buddhadasa's own neighborhood, and only a generation later, young people don't believe that his mission *could* be possible.

Ajahn Medhi then told them about the essence of Buddhadasa's insight; by recounting Buddhadasa's original interpretation of *Paticcasamuppada* (dependent origination), while pointing to a large Wheel of Life panel behind him and interpreting its imagery. Medhi is a handsome man in his fifties and an animated speaker; he has an insider's knowledge of his theme.

But does his audience understand him?

I studied the students' expressions. Do they see the relevance of what is being offered to their daily lives? And to the civilizational drama we are part of?

When Ajahn Medhi concluded his speech, the professor who organized the *Know thyself* course bowed to him three times respectfully, the Buddhist way. In Thailand Buddhism still enjoys enormous respect—among the older generation. Yet I was guessing that the profound, game-changing insight about ourselves that had been offered, which Ajahn *embodied,* did not reach its audience; that the science courses the students had taken, the movies they'd seen and the very *world* 'that has been pulled over our eyes' formed an **ecology of mind** that made communication impossible.

I was reminded of Banathy's *Guided Evolution of Society* I mentioned a moment ago. Banathy saw the onset of "guided evolution of society" as a

revolutionary change similar in significance and scope to the advent of agriculture. Our distant ancestors learned to cultivate land; *we* must learn to cultivate our social habitate and ourselves. In doing that we must face an obstacle they *didn't* have:

> While the fruits of cultivation of land are available for anyone to see and taste—the fruits of *inner* cultivation are hidden in the body of their owner!

Could this be the reason why cultural evolution lags behind the evolution of technology by some thousands of years?

So here's a *wonderful* challenge for the fledgling **transdiscipline**.

As I have just illustrated, by talking about that event in the Walailak University lecture hall, the **phenomenology** that served as origin to **religion** has been discovered and rediscovered again and again, throughout human history; and every time **conditioning** took the better of us; and this **meme** fell into oblivion.

Can we do better *this time*?

By taking a route that's *not* been traveled before.

> Where instead of merely *trying* to communicate—we first **design** communication!

Aurelio Peccei summed up in *One Hundred Pages for the Future*:

> "The arguments posed in the preceding pages [...] point out several things, of which one of the most important is that our generations seem to have lost the sense of the whole. From all points of view, this loss represents a backward step, an unfortunate involution—especially since it has occurred at the very moment when many systems, old and new, are expanding and intertwining, thus deepening the complexity of the great meta-system of the world which gives humanity, willy-nilly, a substantial unity. A sense of the global and universal harmony, which is characteristic to philosophical and religious thought and is the eternal quest of science, has also become an indispensable basis for informed political action. That sense must be restored to present-day society."

Here is what I'm about to do, in this book's ten chapters:

> I'll draft a sketch of the ***whole*** human condition.

So that instead of struggling to communicate Buddhadasa's message (our ***culture***-transformative ***meme*** of choice) to contemporary folks by trying to fit it into the "reality picture" of ***materialism*** (where it *doesn't* fit in, by virtue of being transformative)—I'll make a case for it by showing that it's an essential missing piece in a whole *new* 'puzzle'; which we *have to* solve to be able to ***change course***.

> Democracy guarantees the right to fair trial even to a hated criminal.

We will conceive our ***dialog*** as an update to democracy; where *culture-transformative* ***memes*** will be handled with similar fairness; and where *we*'ll learn to ***see things whole*** and begin to ***make things whole***.

Wholeness being our—and ***holotopia***'s —chosen destination, I may as well tell you what this ***keyword*** means.

Wholeness is the quality shared by well-functioning mechanisms and healthy organisms.

They are *whole* only when *all* their parts or organs are in place. If even a single screw is missing in a machine, if *any* organ is ailing in an organism—*the whole thing* is out of character.

Wholeness is inclusive.

It subsumes both health and holiness, its linguistic relatives. *We* cannot be *whole* unless our natural and cultural environments are *whole* and vice versa.

And here's the best part.

While a machine is *whole* when all its parts are in place and function as intended—a *living* system can always be *more whole*! And it is in this vast realm—between what's considered "normal" and what is possible, *between one and infinity*—that the pursuit of *wholeness* acquires the ethos of limitless adventure that distinguishes *holotopia*.

This book has two parts.

The first five chapters will be focused on *inner wholeness*; the focus of the remaining five will be *outer* or *systemic*; the overall main point will be that those two are inseparable.

And that *wholeness* exists.

And that it's an order of things or *paradigm* not only different—but in significant ways *opposite* from the one we live in.

A complete map of the *whole* human condition is beyond this book's ambition; and beyond what *any* book may provide.

I will content myself with highlighting some sides of our personal and societal wholeness that are consistently ignored; and show that illuminating them with suitable *information* is *alone* sufficient to set in motion comprehensive change.

> In this way I'll then also make a case for the proposed different way to use the *mind*; and for *transdisciplinarity*, which makes it possible.

In the first part of the book—instead of considering the *mind* as "a kind of mirror of the material world", which, as Werner Heisenberg observed (I'll come back to this in Chapter Two), is a recognized fallacy of *materialism*—we'll look *behind* the 'mirror'; we'll include *ourselves* into our worldview; and see how much our whole life experience and future prospects can be improved by working *inwardly*.

> Chapter One will highlight a curious fact; which will prove useful also as a metaphor.

Instead of seeing effort as objective and necessary—we'll look at the *sensation* of effort. And find out that what hinders physical movement, the capital reason why we *experience* it as difficult, is unnecessary and pathological tensing of muscles. We'll see that effortlessness is possible—but must be learned. The use of technology to *avoid* movement and in that way attempt to make life easy and enjoyable—will turn out to have an alternative in *liberating* the body from tension; and *cultivating* movement; so that the body is no longer this heavy burden we have to carry until we die—but an instrument of self-expression! The main source of insights in Chapter One will be the martial art tradition; we'll see that this radically better way to use oneself is this tradition's best kept secret.

Chapters Two and Three will show that *creativity* (the ability to comprehend and create, or metaphorically the motility of the *mind*; on which our capacity to think outside the box and solve "the huge problems now confronting us" depends) and emotions (the motility of our feelings; which determines the quality of love, joy and beauty and whatever else we are

able to experience; and hence *the outreach* of our "pursuit of happiness") exhibit a similar dynamic. We'll see that by liberating ourselves from the **chains** we embody without suspecting that—a quantum leap in those two dimensions of **human quality** can be achieved. In Chapter Two we'll draw insights from reports and observations of unordinarily creative people; in Chapter Three **phenomenological** insights will be drawn from the Sufi tradition.

In Chapter Four I'll weave these and some other sources of insights together; into a general model of liberated or **whole** (individual) human condition; which—in accord with this Teacher Lao's remark—I'll designate as **vitality**:

> "When people are born, they are supple and soft;
> When they die, they end up stretched out firm and rigid;
> When the ten thousand things and grasses and trees are alive, they're supple and pliant;
> When they're dead, they're withered and dried out.
> Therefore we say that the firm and rigid are companions of death,
> While the supple, the soft, the weak and the delicate are companions of life."

You'll see what I'm talking about if you think of the word "stress": That modern living is "stressful" has become a truism; but few of us **know** what this means in terms of lost *abilities*.

While the model of **vitality** in Chapter Four will be drawn from insights in qigong and psychoanalysis—it will help us comprehend the effects of a variety of **human development** methods such as yoga, Alexander Technique and traditional Thai massage.

> Chapters Five and Six will place the Buddhadasa **meme** on this idea map.

In Chapter Five I'll zoom in on a single key point from **Buddhism** (Buddhadasa's reinterpretation of Buddha's method and teaching, as I understood it)—*paticcasamuppada*; which is commonly translated as "dependent origination"; which I'll be calling **origination of conditioning**. Which I'll offer to our **dialog** as a 'natural law' (and claim it a similar sort of standing as "the Newton's laws" now have); because its **phenomenology** can be verified and *has been* verified by a certain 'repeatable experimental' that has been rediscovered at Suan Mokkh; and explained by the model of **vitality** outlined in Chapter Four.

> **Origination of conditioning** explains how **conditioning** results from "the pursuit of happiness" as **materialism** conceived it.

> And how **conditioning** damages **vitality.**

Once again, I am *not* trying to make you **believe** what I say; but to bring to the tribunal of our **dialog** this fundamental **belief** of **materialism**:

> That "the pursuit of happiness" depends on growing material consumption and production.

When Buddhadasa created the Suah Mokkh International Retreat and invited people from across the globe to participate in its programs, his intention was not to convert them to Buddhism—but to help them understand and practice *their own religion*, whatever it may be. Chapter Six will put on this roadmap to **wholeness** the common core of the world religions as Buddhadasa saw it—liberation from **self-centeredness** (by which I mean looking the world from the point of view of one's "interests"; and choosing priorities and directions accordingly). And see that, according to **origination of conditioning** (as Buddhadasa reinterpreted it), **self-centeredness** is an advanced stage of **conditioning**; from which loss of **vitality** or **dukkha** (the kind of "suffering" that is so much part of our daily experience that we don't even have a word for it; and can only perceive it when we begin to liberate ourselves from it) follows *directly.*

This will give us a chance to revisit, in our **dialog**, also *these* **beliefs** of **materialism**:

>That **self-centeredness** is "the human nature" we have to live with.

>And that "free competition" is the natural or even *only* way to steer society.

In Chapter Six our focus will begin to shift from individual to societal **wholeness**; we'll zoom in on the *smallest* of society's **systems**—interpersonal relationships; and look at the **ecology of mind** that **self-centeredness** fosters and its consequences.

>And *already* have a glimpse of the difference that liberation from **self-centeredness** can make.

In Chapters Seven and Eight we'll see how societal evolution steered by **self-centeredness** and "free competition" breeds **power structure**; how it creates monster **systems**—which keep us crazy-busy *and* turn our efforts into problems!

>The **power structure** theory is the exact opposite of common "conspiracy theories".

Its point is to show how oppressive conditions similar to the dictatorship can develop without conventional instruments of power; and even without anyone's evil intention, or even *awareness*. And that to be part of **power structure**—to be liable for the huge problems now confronting us —we only need to think and act in the way that **materialism** qualified as "perfectly rational".

>It will follow that **seeing things whole**—as enabled by the **holoscope**—is *necessary* for diagnosing society's ills.

And that ***making things whole***—or ***systemic innovation***—is of necessity their remedy.

In Chapter Seven I'll shine the light of ***information*** on another (other than ourselves) large thing nearby that demands attention—the ***systems*** (in which we live and work); so that instead of taking them for granted, instead of perceiving them or *ignoring* them as "the reality" we have to live with or live *in*—we can ***see*** them ***as*** human-made things for human purposes; whose structure *determines* the quality of our lives and the effects of our work.

This 'x-ray vision' will help us comprehend the 'anatomy and pathophysiology' behind contemporary issues.

And why we cannot ***change course*** without making ***systems whole***.

The text underneath the title of Chapter Seven promises an outline of "the environmental movement's forgotten history; and its ignored theory". We'll see in Chapter Seven how Erich Jantsch—immediately upon giving the opening keynote at The Club of Rome's inaugural meeting in 1968 in Rome—convened a team of experts to develop a ***systemic innovation*** theory; and then spent a semester at the MIT drafting a plan for a "transdisciplinary university" as the (arguably only) institution capable of developing ***systemic innovation*** as ***praxis***; and lobbied with the MIT academic colleagues and administration to self-organize as transdisciplinary university and initiate this so timely re-evolution.

We'll also see how Doug Engelbart and his SRI-based lab crafted, and demonstrated in 1968, the information technology that you and I now use to read email and access the web—as enabling technology for ***systemic innovation***; necessary for fostering ***systems*** that would make us "collectively intelligent" i.e. capable of comprehending new contingencies and responding to them effectively and quickly. We'll see that these and other similar historical appeals remained ignored; and that when *we* took the

torch and undertook to ignite *systemic* self-organization—*in every occasion* we remained ignored.

> This will confirm Pecceei's diagnosis—that we are *ethically and culturally* incapable of acting as our "new position" demands.

In Chapter Eight we'll look into the social psychology that keeps us motionless and incapable of responding to global risks. We'll see why we *have to* focus—however this might seem as extravagance in the light of "the huge problems now confronting us"—on liberation from **conditioning**; and development of **human quality**. The **phenomenological** evidence in Chapter Eight will be drawn from sociological studies of totalitarian regimes; insights from cognitive neuroscience and sociology will help us comprehend the 'anatomy' of the **power structure**; experience from technical fields including artificial intelligence and artificial life will help us comprehend its 'pathophysiology'.

> Chapters Nine and Ten will outline a way to liberation; by discussing how **science** and **religion** can be liberated and made liberating.

In Chapter Nine we'll zoom in on *the* key strategic move—liberation of **science**; by applying **systemic innovation** to **science**—and **seeing** science **as** a **system** within the larger **system** of society; which *already has* the prerogative to tell us how to use our **minds**; and only needs to be updated, evidence-based, to suit this all-important function.

Abraham Maslow warned in *The Psychology of Science*:

> "I suppose it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail."

In Chapter Nine we'll see how the spontaneous evolution of knowledge in the sciences has brought us to the point where the continuation of this evolution necessitates that we turn **science** into a flexible toolkit—applicable to *all* questions.

In Chapter Nine I'll demonstrate how *transdisciplinarity* can be academically founded and developed—to preserve the credibility and power to convince that characterize science, and alleviate its limitations; without a single bit compromising the time-honored values of the academic tradition but on the contrary—by *complying* to them conscientiously.

> Chapter Ten will outline how (liberated) *science* can be applied to liberate and revive *religion*.

So that with the aid of (liberated) *religion* we may ignite an *inspired* cultural revival.

> Instead of a conclusion, the final chapter will introduce the *dialog*; through which collaborative liberation will unfold.

> I will also share some of my own experiences.

I've had, namely, the unusual fortune to study under five masters of *human development* arts; to be an insider in five distinct *human development* traditions.

> Through practice I became a *cultural mutant*.

Which is a bit like an extraterrestrial or a time traveller. So I thought it might amuse you to hear what some assorted themes like
- how to handle the climate crisis
- the future of the political left
- the next big thing in IT innovation
- how to put an end to war

might look like from such an uncommon perspective. But that's not why I wrote this book.

Morpheus told Neo:

> "The Matrix is the world that has been pulled over your eyes to blind you from the truth."

When through *dialog* we'll come to comprehend our "new position", it will be clear that we have but one urgent task to attend to—and ten thousand distractions:

> We must urgently liberate our children and students from the (obsolete system of concepts, stories, values and institutions, which keep *us* trapped in a dysfunctional) world.

My call to action will be as it's always been—to institute *transdisciplinarity*; which we *prototyped* as *knowledge federation*; and in that way empower our next generation to comprehend and evolve culture and society, and human quality; and become able to handle the power that technology has given us beneficially and safely.

> But now I'll invite you to attend to it through *logos*.

If you'll ignore everything else I've said or *will* say—here is something I'll ask you to please *not* ignore: I am *not* telling you how the world is.

> I am inviting you to *practice* a different way to use the *mind*.

The *dialog* is an exploration and handling of the core themes of our lives and times through *logos*—as the Greek word *dialogos* (through *logos*) might suggest; and (a project to evolve) a different *collective mind*—which will provide us *evolutionary guidance*; and empower us to *change course*.

The key to it all is our liberation from **conditioned** or "programmed" acting and reacting.

A certain technique is so germane to *dialog* that we may consider it its definition. David Bohm called it "proprioception"; the Buddhists call it "mindfulness". The **phenomenology** behind it is that when the **mind** considers a theme or when it's present in a conversation without judging, it is capable of liberating itself from **conditioned** responses that circumvent **logos**; and connecting the dots and seeing in *new* ways. We practice **proprioception** when we observe our own **mind** and its reactions; and learn to simply be present, to simply *observe*; and recognize the **conditioned** responses as they *begin* to arise—and liberate ourselves from them.

It is *to that end* that I'll be challenging core **beliefs** and trusted institutions; and on occasion even ridiculing them lovingly.

The idea is not to be mean—but to give you a chance to practice this all-important technique; and recognize and avoid the automated responses that the **systems** we belong to demanded and instilled.

The **dialog** begins as you read these pages.

Observe your **mind**'s reactions without judging them: Are you experiencing self-righteous indignation? Is your **mind** wandering off?

And when you finish reading observe your *response*: Will you ignore what you'll have read because it's none of your business? Will you be begrudging it because that *is* your business?

Will you be ignoring what I've just asked of you?