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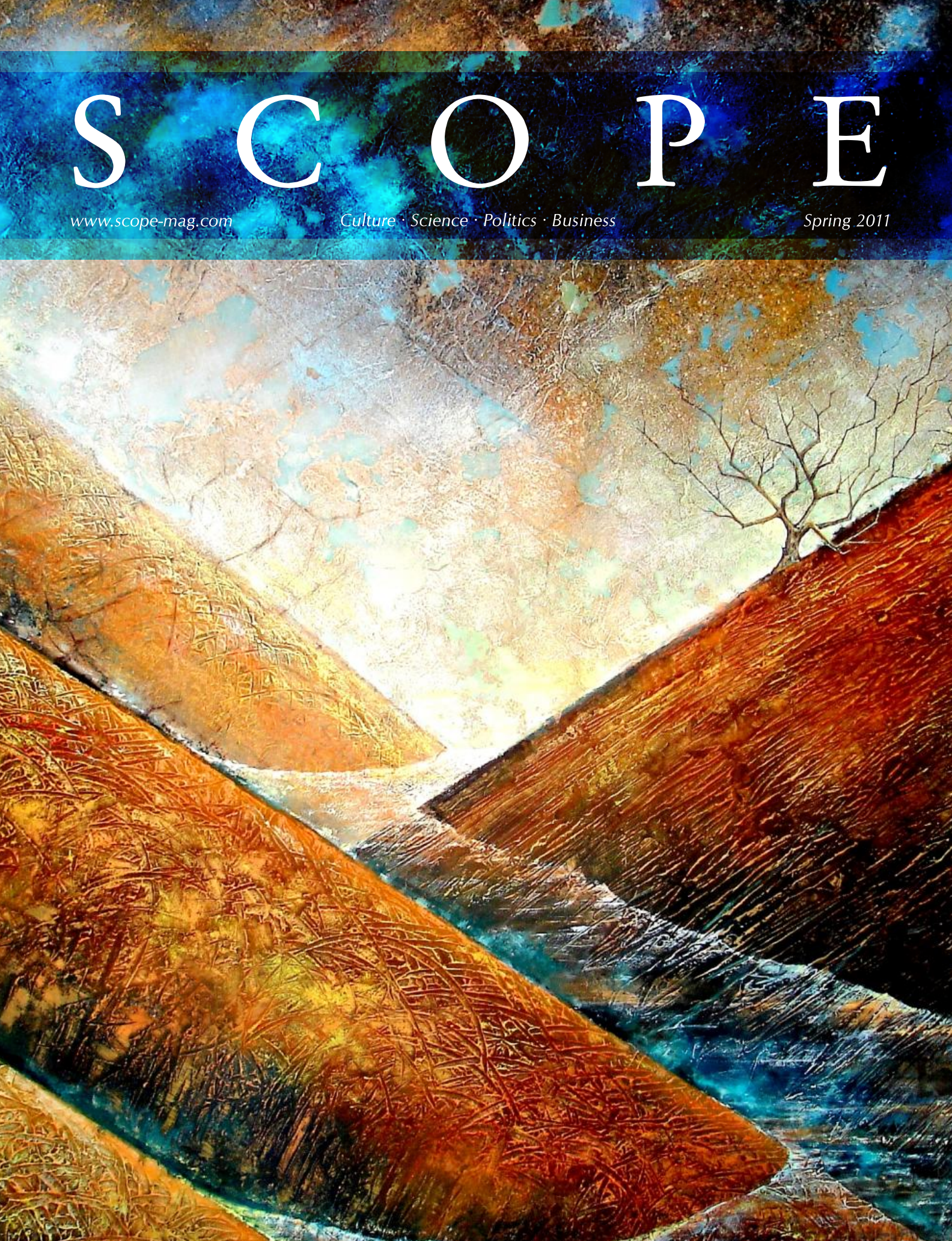

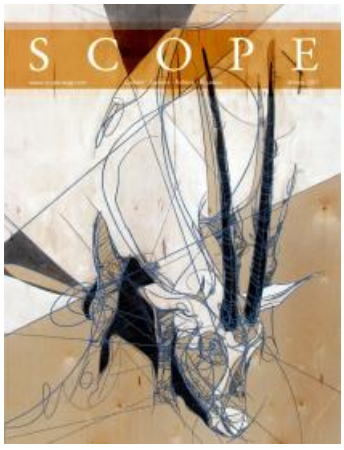


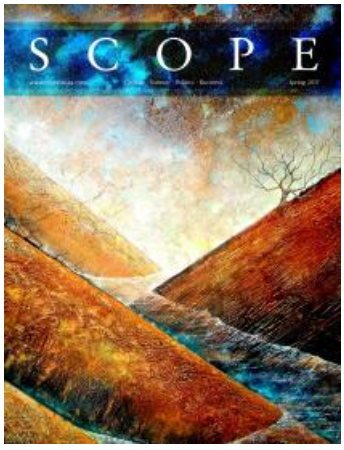


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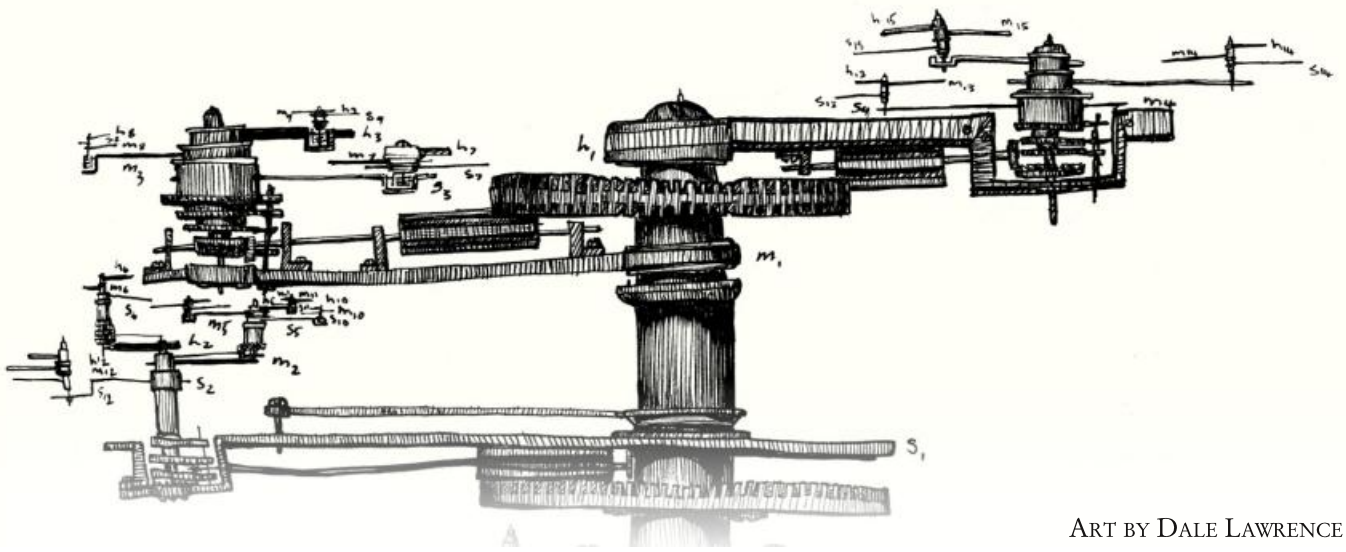
# S C O P E



Art by Dale Lawrence

*It was an age of borderless thinking,*
*of democratic access to scientific, technical,*
*and financial knowledge.*

*It was an age of obsessives, of dilettantes,*
*of hucksters and eccentrics.*

*It was our past. It may well be our future.*

## Convention of cranks

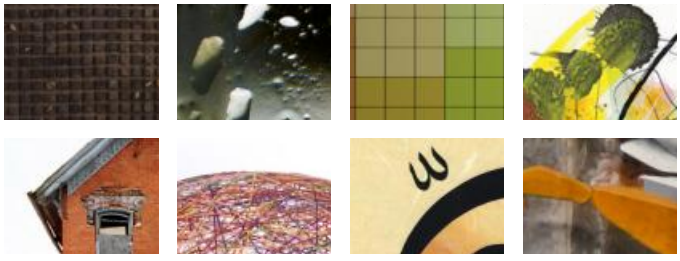
by Rob MacDougall, *page 12*

# S C O P E



*Also...*





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Beth Rhodes, "To Be Alone With You", 2011

# On mere suspicion

## *Are the Security Council's efforts to combat the financing of terrorism violating fundamental rights?*

BY CHRISTOPHER MICHAELSEN

ART BY BETH RHODES

In the early 1990s, Somalia was a country rapidly descending into chaos. Political upheaval, combined with the effects of civil war and a severe drought, had led to the collapse of the Somali government and banking system, and to a general breakdown in the social structure. Amidst this turmoil, a charity organisation, the Al Barakaat Foundation, stepped in to provide aid to the Somali people. It set up a system that enabled Somali immigrants in the United States, Europe, and elsewhere to send a significant part of their earnings back to their families. Over the next few years Al Barakaat grew to become Somalia's largest business group, with subsidiaries involved in banking, telecommunications, and construction. Close to eighty percent of Somalis depended on its services.

Then came 9/11, and with it frantic efforts by the U.S. and other governments to combat the financing of terrorism. Al Barakaat quickly found itself under suspicion of supporting Al-Qaeda. In early November 2001, President George W. Bush declared that the foundation was "a group of money-wiring and communication companies owned by a friend and supporter of Osama bin Laden." He announced that the Treasury Department would force Al Barakaat to close. This, stated Bush, would send "a clear message to global financial institutions: You

are with us, or you're with the terrorists. And if you're with the terrorists, you will face the consequences." U.S. officials now acknowledge that the evidence of Al Barakaat backing terrorism was rather flimsy.

Nevertheless, one of the immediate results of the U.S. allegations was that Al Barakaat was included on the United Nations 1267 sanctions list maintained by a sub-committee of the Security Council. Initially established by the Security Council as a response to the bombings of the U.S. embassies in Kenya and Tanzania in 1998, the 1267 sanctions regime required all states to freeze the assets of any individual or entity associated with Al-Qaeda, Osama bin Laden and/or the Taliban as designated by the 1267 Committee.

The listing of Al Barakaat had severe consequences. It effectively deprived Somalia of its most significant employer and financial institution, and cut Somalis off from the remittance payments on which they relied. In fact, the freezing of Al Barakaat's assets worldwide resulted in the collapse of economic activities in Somalia as thousands employed by the foundation had to stop working, while those receiving money from relatives and friends abroad struggled to make ends meet. As Somalia's ambassador to the United Nations, Ahmed Abdi Hashi, put it in 2003, "depositors cannot access their funds. Businessmen cannot do business. Many are going bankrupt."

Yet Al Barakaat was neither informed about the exact reasons for its inclusion in the UN's list, nor was it given any opportunity to prevent the listing by demonstrating that its inclusion was unjustified. What is more, even after its assets had been frozen, the foundation's ability to challenge the listing in a court of law was severely limited. This was mainly due to the fact that UN Security Council resolutions enjoy primacy over other rules of international law, making it difficult to submit them to any form of judicial review.

The case of Al Barakaat was not an isolated incident. While the foundation was eventually removed from the list in 2009, as of 28 April this year 487 persons and entities remain listed. Indeed, the Security Council continues to consider the 1267 sanctions regime as a cornerstone of the UN's counter-terrorism efforts. This was recognized by the Council, most recently, in resolution 1904. Emphasizing that sanctions were "an important tool under the Charter of the United Nations in the maintenance and restoration of international peace and

Beth Rhodes, "Deathbed", 2011

Beth Rhodes, "We Will Become Silhouettes", 2011

security," the Council stressed the need for "robust implementation" of the 1267 regime as a "significant tool in combating terrorist activity."

Nonetheless, the 1267 sanctions regime and its mechanism for the listing and de-listing of individuals and entities known or believed to be associated with Al-Qaeda or the Taliban remain highly controversial. As Richard Barrett, Coordinator of the 1267 Committee's Monitoring Team, acknowledged, the controversies mainly stem from the fact that the sanctions regime, although preventive by design, is punitive by impact. Persons and entities listed have not necessarily committed any illegal act. Listings may occur on mere suspicion of associating with Al-Qaida or the Taliban. States may request that the 1267 Committee add names to the UN list and the Committee also considers submissions by states to remove names from it. In both instances the final decision rests with the Committee which makes all its decisions by consensus.

In contemporary jurisprudence, measures such as the freezing of assets constitute serious criminal sanctions which accordingly warrant proper safeguards, including judicial review and effective remedies. The 1267 listing and de-listing procedure, however, does not provide for judicial or even quasi-judicial protection. Thus, the regime continues to be criticized for its lack of respect for internationally recognized standards of due process, including the right to a fair hearing, the right to judicial review, and the right to an effective remedy. As a judge of the Federal Court of Canada recently put it, the 1267 sanctions regime's situation for a listed person or entity is "not unlike that of Josef K. in Kafka's *The Trial*, who awakens one morning and, for reasons never revealed to him or the reader, is arrested and prosecuted for an unspecified crime."

In spite of these formal limitations, legal cases have been presented to national courts in Belgium, Canada, Italy, Switzerland, the Netherlands, Pakistan, Turkey, the United Kingdom, Germany and the United States. Several cases have also been brought before the Courts of the European Communities in Luxemburg, challenging the implementation of the 1267 sanctions regime within the European Union. In these cases, which included that of Al Barakaat, the European Court of First Instance upheld the legality of the EU regulations implementing the 1267 sanctions regime and found that it generally lacked the power to judicially review resolutions of the UN Security Council, as those have primacy over any other rule of international law.

Nevertheless, these same findings were

overturned by the European Court of Justice in the landmark appeal cases of Kadi and Al Barakaat in September 2008. The Court found that the Courts of the European Communities did have jurisdiction to review the implementation of UN Security Council resolutions, and furthermore, that the contested regulation implementing the 1267 regime violated fundamental human rights as recognized by Community law:

> [...]the Community judicature must, in accordance with the powers conferred on it by the EC Treaty, ensure the review, in principle the full review, of the lawfulness of all Community acts in the light of the fundamental rights forming an integral part of the general principles of Community law, including review of Community measures which, like the contested regulation, are designed to give effect to the resolutions adopted by the Security Council under Chapter VII of the Charter of the United Nations.

As far as Al Barakaat's listing was concerned, the Court held that the foundation's plea alleging breach of their rights of defence, especially the right to be heard, and of the principle of effective judicial protection, was "well founded".

The Kadi and Al Barakaat decision marked the first time that the European Court of Justice confirmed its jurisdiction to review the lawfulness of a measure giving effect to UN Security Council resolutions, and, furthermore, annulled an EC measure implementing a UN Security Council resolution for violating fundamental principles of Community law. While this annulment did not directly affect the inclusion of Mr. Kadi and Al Barakaat on the UN list, the decision compellingly demonstrated the need for a comprehensive revision of the 1267 regime's listing and de-listing mechanisms with a view to ensuring fair and clear procedures.

**A listed person did not even need to be informed of the identity of the State that requested their inclusion**

Yet, in spite of the obvious shortcomings of the 1267 sanctions regime and the legal blows to its implementation in the European Union, the Security Council has been slow in addressing the due process criticisms and in initiating reform. It was not until December 2009, that the Council introduced the first significant changes to the de-listing procedure by establishing an Ombudsperson mechanism and by appointing a former Canadian prosecutor, Kimberly Prost, to the post. The Ombudsperson is tasked to deal with de-listing requests from targeted entities and individuals in a three-step process.

In a first step, the Ombudsperson is mandated to acknowledge the receipt of the de-listing request, inform the petitioner of the general procedure for processing de-listing requests, and answer specific questions from the petitioner about 1267 Committee procedures. The Ombudsperson then presents a written update to the 1267 Committee on progress to date, including details regarding which States have supplied information. The Ombudsperson may extend this period once for up to two months if she assesses that more time is required for information gathering, giving due consideration to requests by UN member states for additional time to provide information.

In a second step the Ombudsperson facilitates a two-month period of engagement, which may include dialogue with the petitioner, the 1267 Committee, and UN member states. At the end of this period, the Ombudsperson drafts and circulates to the 1267 Committee a comprehensive report that summarizes, and specifies the sources of, all available information that is relevant to the

Beth Rhodes, "Flint", 2011

de-listing request. Based on an analysis of this information and on the Ombudsperson's observations, the report then sets out for the Committee the principal arguments concerning the de-listing request.

In a third and final step, the 1267 Committee has thirty days to review the Ombudsperson's comprehensive report. It is then the responsibility of the chair of the Committee to place the de-listing request on the Committee's agenda for consideration. Yet even if the Ombudsperson recommends de-listing, the Committee is not obliged to follow this recommendation. A single dissenting vote would be sufficient to prevent de-listing of a targeted individual or entity. In effect, the Ombudsperson's report is of an advisory nature only.

The establishment of the Ombudsperson office constitutes a significant improvement to the existing listing and de-listing procedure. Nevertheless, the mechanism still fails to fulfill international legal requirements of effective due process. In particular, the Ombudsperson does not have the power to grant appropriate relief, as the final decision on whether to de-list or not rests with the Security Council's 1267 Committee. As a consequence, in October 2010 the European General Court (the former Court of First Instance) found in the case of Kadi II that the creation of the Office of the Ombudsperson could not be "equated with the provision of an effective judicial procedure for review of decisions of the [1267] Sanctions Committee". The Court stated that, in essence, the Security Council had still not deemed it appropriate to establish an independent and impartial body responsible for hearing and determining actions, as regards matters of law and fact, against individual decisions taken by the 1267 Committee. Similarly, the Office of the Ombudsperson did not affect the principle that removal of a person or entity from the UN list required consensus within the 1267 Committee.

The Court also pointed out that the evidence which may be disclosed to the targeted person or entity remained entirely at the discretion of the State which proposed the inclusion, and there was no mechanism to ensure that sufficient information be made available to allow them to defend themselves effectively. In fact, a listed person or entity did not even need to be informed of the identity of the State which requested their inclusion on the UN list in the first place.

The Court's decision in Kadi II represents another significant blow to the 1267 sanctions regime. So why has the Security Council failed to address such fundamental due process concerns and introduce fair and clear procedures for those included in the 1267 list?

It seems, first and foremost, that there is a lack of political will among Security Council members to initiate reform. While none of them have made any official statements to this extent, it is clear that the Council members are reluctant to agree to any kind of reform that would, as they see it, take away the authority of the Security Council in matters relating to international peace and security. But other causes may lie behind this lack of will. One may be the perception that the due process shortcomings of the 1267 sanctions regime are negligible, because they only affect a relatively small number of alleged terrorists and their associates. There are much more serious human rights violations being committed every day, they may reason, so why not focus on other, more urgent, policy questions?

This perception, however, is fundamentally flawed. The shortcomings of the 1267 sanctions regime do not only affect listed individuals and entities but have much broader implications. They highlight fundamental problems of accountability relating to the Security Council as an organ of the United Nations. In any legal system, even the international legal system, a body exercising power should bear the responsibility for the exercise of this power. Yet, the discretionary powers of the 1267 Committee remain virtually unrestrained and uncontrolled. While this is, of course, a general problem affecting most international bodies, the case of the 1267 regime demonstrates the deficiency in accountability in a particularly worrisome manner.

The shortcomings of the 1267 regime also demonstrate that the "individualization" of Security Council measures—that is, targeting private individuals and entities directly—has not been accompanied by the creation of a means for those targeted to appeal the measures imposed on them. Thus the debate is not only about justice for the Al Barakaat Foundation or other listed individuals and entities. As Dutch legal scholar Larissa van den Herik has noted, it is also "about the system that we want to build: if we want to go beyond the State and target the individual, we should also give the individual standing to defend himself." The issue is thus closely related to the Security Council's credibility. As the Council is becoming more and more concerned with human rights violations, it should practice what it preaches and operate in line with decent procedures.

Lack of political will to initiate comprehensive reform, however, is just part of the story. Political sensitivities and practical obstacles have also prevented progress. Among the former is the problem of independent review of Security Council decisions. It is highly unlikely that the Security Council will be prepared to accept a fully independent judicial authority to scrutinise its actions. Such a review would, as the Council sees it, erode its absolute authority under the UN Charter to take action on matters affecting international peace and security.

Practical obstacles include evidentiary problems: many listing decisions are based on intelligence information which states are reluctant or unwilling to share or submit to scrutiny. This issue is part of a classic challenge faced in the context of judicial review and counter-terrorism, that is, whether and to what extent classified intelligence information can be used or disclosed in court. It is beyond question that the protection of sensitive sources and of important intelligence information is a legitimate State interest. However, there are mechanisms available to address this issue in a way that also maximizes concern for fair trial rights and due process guarantees, including closed court proceedings and

security-cleared counsel.

Though much of the debate over the 1267 sanctions regime has focused on technical and legal issues, its implications are farther reaching. In essence, it raises fundamental questions about the Security Council's role in strengthening a rules-based international system and maintaining international peace and security under the rule of law. These include questions about the legal context within which the Council operates and the extent to which the Council must itself adhere to international human rights law.

It is in this respect that the case of the 1267 sanctions regime is most paradoxical. The United Nations has traditionally been regarded as a promoter and guarantor of human rights rather than as a perpetrator of human rights abuses. The UN Charter requires the organs of the organisation to promote and encourage respect for human rights (Articles 1 (3) and 55 (c)), and to assist Member States in the realization of human rights (Article 13 (1b)). Most would agree that the UN has, on the whole, lived up to these promises. It has fostered an international culture of human rights by facilitating the adoption of key human rights treaties and by contributing to important developments in soft law. Moreover, UN organs, sub-organs, and other treaty-based bodies have played a crucial role in monitoring the human rights performance of member states.

Yet in the context of counter-terrorism, the Security Council has itself become an abuser of human rights. Despite very clear messages from European courts that the 1267 sanctions regime violates fundamental human rights, the Council has so far failed to initiate comprehensive reform. The next opportunity for the Council to remedy its failures comes in June this year when the 1267 sanctions regime is up for review. It remains to be seen whether the permanent members of the Council are ready to re-engage with the issues in any meaningful way. The situation does not look promising. In particular, there seems to be a misconceived view among key Security Council members that the 2009 establishment of the Office of the Ombudsperson is sufficient for now.

However, a substantial re-engagement with the 1267 regime's shortcomings, combined with the realization that the protection of due process standards lies at the heart of any successful counter-terrorism strategy, is crucial to credible and sustainable counter-terrorism efforts by the UN. As the fight against international terrorism enters its second decade, the Security Council cannot afford to waste another opportunity to fix its sanctions regime. It needs to set an example that demonstrates that the objectives of combating terrorism and protecting human rights are not mutually exclusive.

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## About the artist

**Beth Rhodes** is a painter and designer from Biloxi, Mississippi. Her work incorporates expressive marks and loose brushstrokes, reminders of human presence in a digital world. In her most recent series of paintings, she focuses on the loneliness felt from an increasingly individualistic society. You can view her entire portfolio here: http://cargocollective.com/bethrhodes

Dale Lawrence, "2.1.1 Invention to Pass Time (I)", 2010

# Convention of cranks

## *Why the nineteenth century's golden age of pseudoscience may be a precursor of our own*

BY ROB MACDOUGALL

ART BY DALE LAWRENCE

*Pravda*, Russian for "truth", was the official newspaper of the Soviet Communist Party from the start of the Bolshevik Revolution to the final days of the Soviet Union. After the collapse of Soviet communism, *Pravda* fell on predictably hard times. The newspaper was sold to foreign owners, who reinvented it in the 1990s as a rather shameless supermarket tabloid. The pages that once delivered the ponderous dictates of the Kremlin were given over to breathless reports on extra-terrestrial invaders, ghostly apparitions, and the curative properties of goat testicles. This may be a fitting fate for a newspaper whose truth was never much more than titular. But *Pravda*'s transformation (liberation? decline?) strikes me as a kind of metaphor for our whole information environment, as we pass from the top-down mass media of the twentieth century to the interactive digital media of the twenty-first.

The shorthand story of our own revolution is by now familiar. In the twentieth century, we built powerful tools by which a

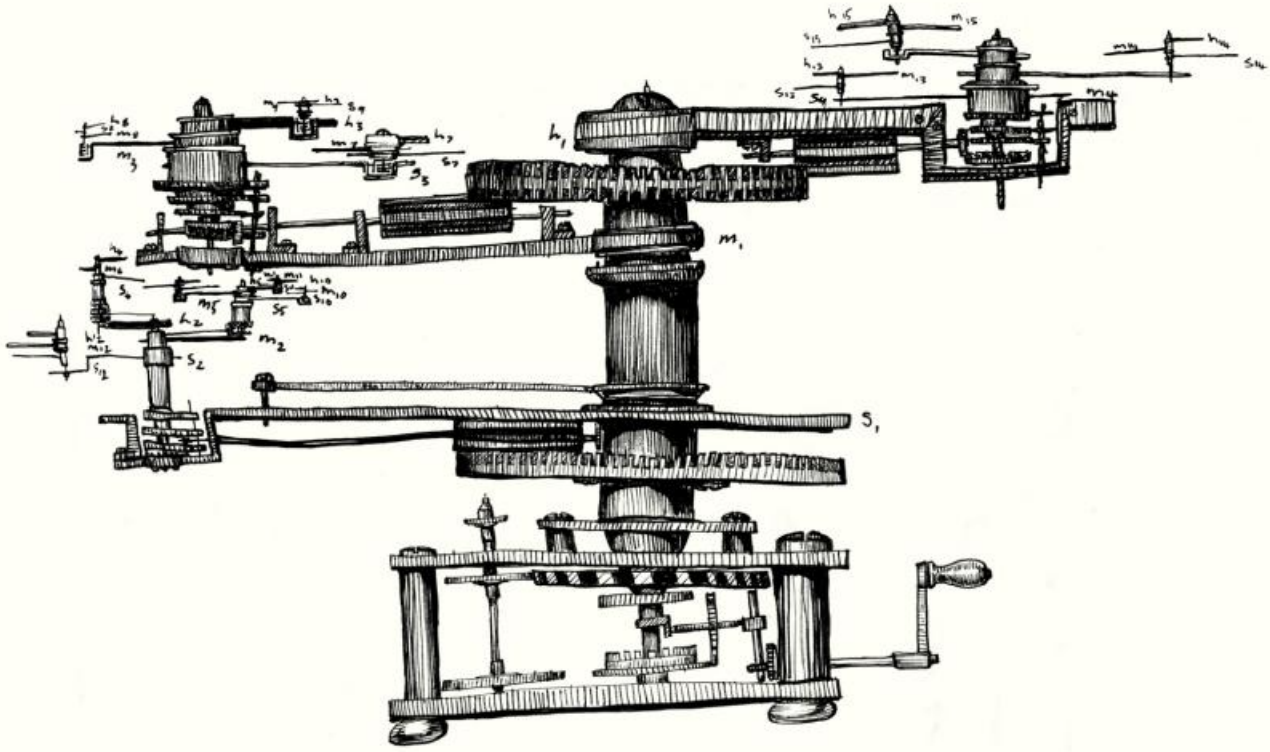


*Figure 2.1.1*

# INVENTION TO PASS TIME (I)

1.Design & Development.—2. Manufacturing. —3. Accelerated Time. —4. Effects of Viewing and its Analogy to Accelerative Culture

*Concept drawing of the front view of the present invention showing the main drive shaft; the primary, secondary and tertiary hands and illustrating the basic cog and gear system, which is driven by the handle.*

few people could broadcast their version of truth to a mass audience. In the West, at least, such power was supposed to come with responsibility. Around our presses and bully pulpits we built codes of professional conduct and hierarchies of expertise. But now the world has turned. Networked digital and social media are toppling the old business models and the intellectual authority of twentieth-century institutions. Today, we are told, everybody can broadcast to everybody, or at least speak to themselves. We have moved from the cathedral to the bazaar, from the one voice of our own Central Committees to the post-Soviet cacophony of Twitter and YouTube, Wikipedia and web 2.0. To some, this is the happy dawn of a more democratic marketplace of ideas. To others, it is a descent into crankdom, quackery, and untruth.

It is hard to judge a revolution still in progress, and harder still to say much about today's social and technological changes that has not already been said. Whatever else new media does, each innovation in communications turns us, if only briefly, into historians of technology. Until the novelty of this or that tool fades, we are all Marshall McLuhan, conscious of and curious about the media we use. Blog posts about blogging, tweets about Twitter, books about the obsolescence of books: every new form of communication produces a similar moment, if only a moment, of critical self-reflection.

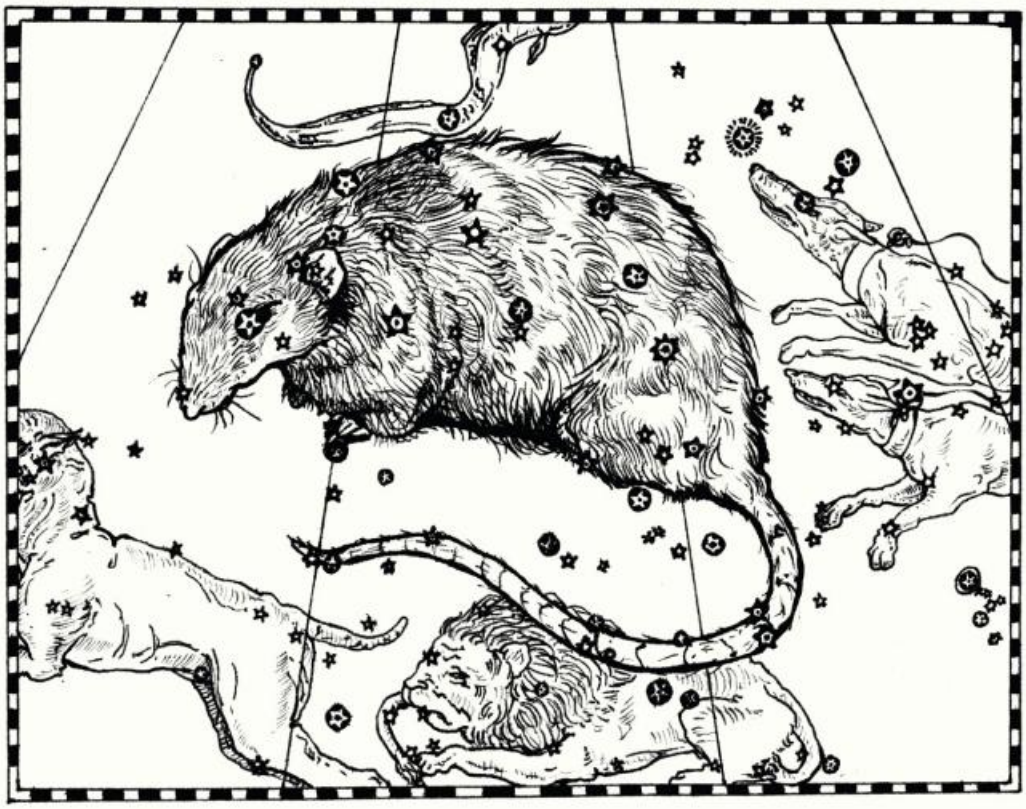
But I really am a historian of technology. Does that expertise equip me to offer anything new to this debate? One thing my training has taught me is to be very wary of making predictions about the future. Another thing is that, when in doubt, a historian can always say: This has all happened before. Which, in fact, it has.

## The golden age of crankdom

There have always been people who believe in odd things, and those who fixate on impossible inventions or miracle cures. The market for comforting falsehoods remains bullish in good times and bad. But the cranks and pseudoscientists of the nineteenth century were remarkable in terms of the wide exposure they achieved, the large audiences they reached, and the banquet of strangeness they laid out before their era's marketplace of ideas. Quack doctors hawked patent medicines to cure all ills, backyard inventors toiled over perpetual motion machines, and political prophets brought forth strange commandments to lead their faithful to some promised land.

Historians of science have identified a particular "discourse of eccentricity" that flourished in nineteenth-century Britain. Britons borrowed a word from geometry and astronomy—as in the orbit of a comet, an eccentric circle is one that is not concentric with another circle—to describe individuals who would not fit into the social or intellectual categories of the day. Victoria Carroll's 2008 book *Science and Eccentricity* describes the era's fad for eccentric biographies, its close association of science and strangeness, and a corresponding fascination with boundary-crossing "freaks" or hybrids of the natural world. Early Victorian eccentrics were an eclectic bunch: cross dressers and nudists, hermits and misers, vegetarians and gluttons. Yet as the century wore on, the label more often became affixed to amateur scholars whose theories transgressed emerging boundaries between literary genres or scientific fields. This nineteenth-century discourse of eccentricity helped to define and entrench a new intellectual order, hardening lines between the disciplines, between professionals and amateurs, and between legitimate and illegitimate ideas.

In nineteenth-century America, the closest equivalent label was not astronomical but mechanical: the crank. The etymology of the word "crank" in this sense is not clear—it was probably a conflation of crank's original root, meaning crooked, and the word "cranky," meaning irritable—but the term took hold in the nineteenth-century United



Dale Lawrence, "3.2.1 Ursa Nova", 2010

*Figure 3.2.1*
URSA NOVA

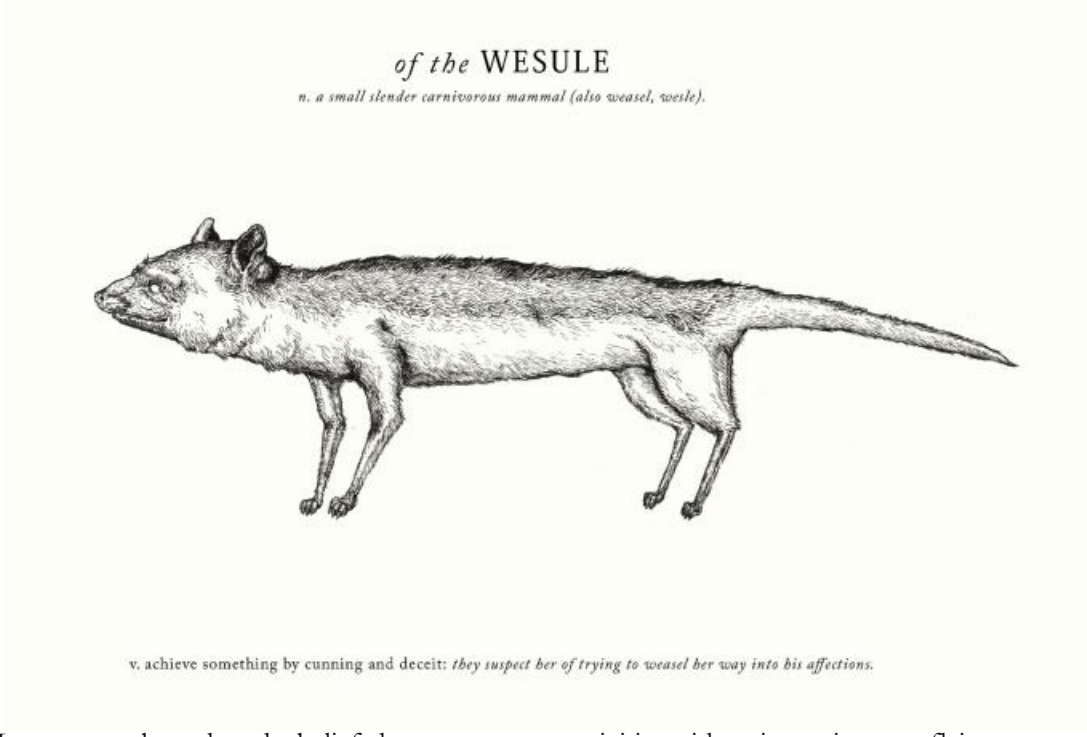
States as a way to describe anyone in the grip of an implausible idea. American ideas about crankdom worked in much the same way as Carroll's discourse of eccentricity, but with a more political edge. American cranks routinely conflated mechanical, social, and financial ideas. The dotty, pontificating crank became a recognized symbol of the age, and allegations of crankdom and quackery flew back and forth in the boisterous political combat of the era.

**A convention of cranks**

The overlap between crankdom, invention, and political reform was on clear display at the so-called "Convention of Cranks," a meeting of the American Bimetallic League at the Chicago World's Fair of 1893. Six hundred delegates attended this convention in order to promote the remonetization of silver. The money debate between advocates of gold, silver, and paper money was central to American politics in the 1890s in a way that is hard to fathom today. Wall Street and Washington orthodoxy favored a gold standard, and would-be reformers like the Bimetallic League faced harsh derision from the establishment. Speaking of the pro-silver convention in 1893, the Chicago Herald said, "The air seems to breed cranks, and the demon of destruction is abroad in the land." But the mayor of Chicago, Carter Henry Harrison, welcomed the Bimetallists. He opened the convention with a speech saying, "It is said you are lunatics… I say I am rather glad to welcome such lunatics as you." Members of the Bimetallic League warmly applauded Harrison's remarks, and spent the rest of the conference addressing each other as "fellow lunatic" and "brother crank".

1893 was a year of economic panic.

Dale Lawrence
"Of the Wesule"
2011




League members shared a belief that an injection of silver currency into the American economy would relieve suffering farmers and restore prosperity to the West. But silver was far from the only topic discussed. While the wealthy and powerful saw the gold standard as a basic tenet of economic prosperity and even moral probity, something drew eccentrics and oddballs to the silver cause, and drew silverites to ever more radical ideas. At a moment when America seemed to teeter on the brink of financial ruin, the convention of cranks offered an explosion of nostrums, inventions, theories, and cures. Flat earthers and spiritualists rubbed shoulders with rain makers and prognosticators of all kinds.

One of the stars of the convention was Minnesota Congressman Ignatius Donnelly. Donelly is remembered today as a Populist leader; he wrote the ringing preamble to the Populists' Omaha Platform in 1892. He also wrote several books about the lost civilization of Atlantis, the end of the world, and the secret messages encoded in Shakespeare's plays by their "true" author, Francis Bacon. At Chicago in 1893, Donnelly debated Carl Browne, a California showman who dressed like Buffalo Bill—and in private, like Annie Oakley—who combined his own political activities with trying to invent a flying machine and hawking a patent medicine called "Carl's California Cure". It was also at the Convention of Cranks that Browne met Jacob Coxey, a "Greenback" advocate so committed to monetary reform that he named his youngest son "Legal Tender". Coxey had invented his own patent medicine—the evocatively named "Cox-E-Lax"—and had his own technological prescriptions for the nation's economic ills. Together, Browne and Coxey would go on to organize Coxey's Army, a famous protest march to Washington by hundreds of unemployed workers, hoboes, and tramps.

Crankdom was at once a mechanical activity and a political one, and the two were often intertwined. Cranks slipped easily between the political, technological, and scientific realms, often trying to bring the tools of one to bear on the problems of another. Each had their own individual hobby horse, but on the whole the Convention was an optimistic gathering. The cabinet of cures on offer for America's economic ills testified to a deep belief, or desire to believe, that politics, economics, science, and society remained understandable and perfectible by ordinary folk.

**Ben Franklin's ghost**

John Murray Spear was a Universalist minister in nineteenth-century New England. Spear was a reformer: an opponent of the death penalty, an advocate of women's suffrage, a staunch abolitionist, and an operator in the underground railroad. In 1844, Spear was attacked by an anti-abolitionist mob and beaten within an inch of his life. He received severe head injuries and spent several days slipping in and out of a coma. Some time after this experience, Spear was, he believed, contacted by the friendly ghost of Benjamin Franklin.

This was not as unusual as it might sound. In the middle to late nineteenth century, millions dabbled in spiritualism, visiting séances, decoding table rappings, pushing Ouija-style planchettes, and watching mediums emit ectoplasmic goo. And no spirit from the other side—no messiah, no rich dead uncle, no lost child—communicated with American spiritualists more frequently than the unquiet shade of Benjamin Franklin. From beyond the grave, Franklin transmitted messages to and from dead loved ones, spoke out on the issues of the day, and lectured on scientific topics like magnetism and balloons. The industrious Franklin had apparently kept busy in the afterlife, for he often provided his living correspondents with descriptions of new inventions: self-adjusting window blinds, an improved flush toilet, and the like. Andrew Jackson Davis, a leading spiritualist known as the Poughkeepsie Seer, offered an ingenious explanation as to why Franklin appeared so frequently in spiritualist séances, and why spirits in general had only recently become so talkative. It was Franklin's spirit, Davis said, that had posthumously invented the "Celestial Telegraph" by which the dead could send messages back to the living world.

Reverend Spear spent the next twenty years doing Franklin's bidding and constructing inventions of Franklin's design. Before being contacted by Franklin, Spear had shown no particular interest or aptitude for invention or technology. Indeed, a friend called him "quite destitute of inventive genius, scientific knowledge … or even ordinary mechanical abilities." But this, the friend went on, made Spear "all the better adapted" to being Franklin's instrument, since he was "neither disposed nor able to interpose any undesired suggestions of his own." Despite this lack of mechanical ability, every task that Spear undertook for the spirit world combined the technological and the political. His improved sewing machine was meant to liberate women from drudgery. His network of telepathic mediums was meant to break the grip of the hated telegraph monopoly. His perpetual motion machine, the New Motor, was a mechanical representation of America itself. It was not meant "merely" to run forever, or to produce more energy than it used. The aim of the machine, he said, was the "radical agitation" of an "inert society", converting poverty into abundance and prejudice into love.

John Murray Spear was undoubtedly a crank. He was also a tireless advocate for the poor and oppressed. And he was emblematic of a type. If Spear was one of a kind, his story would illuminate little more than his own psychology. But he was not. Scratch an eccentric nineteenth century inventor and you find a reformer. Scratch a nineteenth century reformer and you generally find an attic full of mechanical inventions or schemes.

Again and again, reformers and inventors in this era reached for machine metaphors, describing democracy or the economy as a marvelous but malfunctioning machine. Nineteenth-century Americans admired their Constitution as a "machine that would go of itself." Crank inventors literalized this metaphor, conflating the dream of a

**John Murray Spear was undoubtedly a crank. He was also a tireless advocate for the poor and oppressed**

**Knowledge should not be locked in libraries and learned colleges, Ben Franklin argued: "the great book of Nature is open to all"**

perpetual motion machine with political or spiritual renewal. The machinery of government, they said, was run down or stuck. But if the nation was a malfunctioning machine then it stood to reason it could be fixed like a machine. There had to be some small adjustment—a priming of the pump, or an application of axle grease—that would resolve all contradictions between morality and progress, or poverty and prosperity.

Metaphors are used for poetic effect, of course, and this makes them slippery sources for historical analysis. Yet to the crank, metaphor was more than poetry. It was an argument in itself. "As above, so below" was the ancient credo of Hermetic magic, and cranks and other marginalized thinkers carried that philosophy into the nineteenth and twentieth centuries. Over-literalized metaphors and analogies were engines driving crank and pseudoscientific thought.

### The information explosion of the nineteenth century

The Burgess Shale, in the Rocky Mountains of British Columbia, is one of the world's most celebrated fossil deposits. The soft-bodied creatures fossilized there were products of the Cambrian explosion, a great flowering of life that began some 570 million years ago. They are bizarre to human eyes: spiny worms and finned crustaceans, limbless predators with serrated gullets, five-eyed *opabinias* with vacuum-like snouts. In his 1989 book *Wonderful Life*, Stephen Jay Gould made the Burgess fossils famous as evidence for the strangeness and contingency of life. He argued that the Cambrian explosion contained far more diversity and variety of life forms than exist today.

The nineteenth century was a kind of Cambrian explosion for intellectual life. The mental soil of the era was crammed with an extraordinary diversity of notions and enthusiasms, many now extinct. Their remains can be found nearly everywhere, deposited in the great libraries and institutions of North America and Europe and in dedicated collections like the Massachusetts Institute of Technology's Archives of Useless Research.

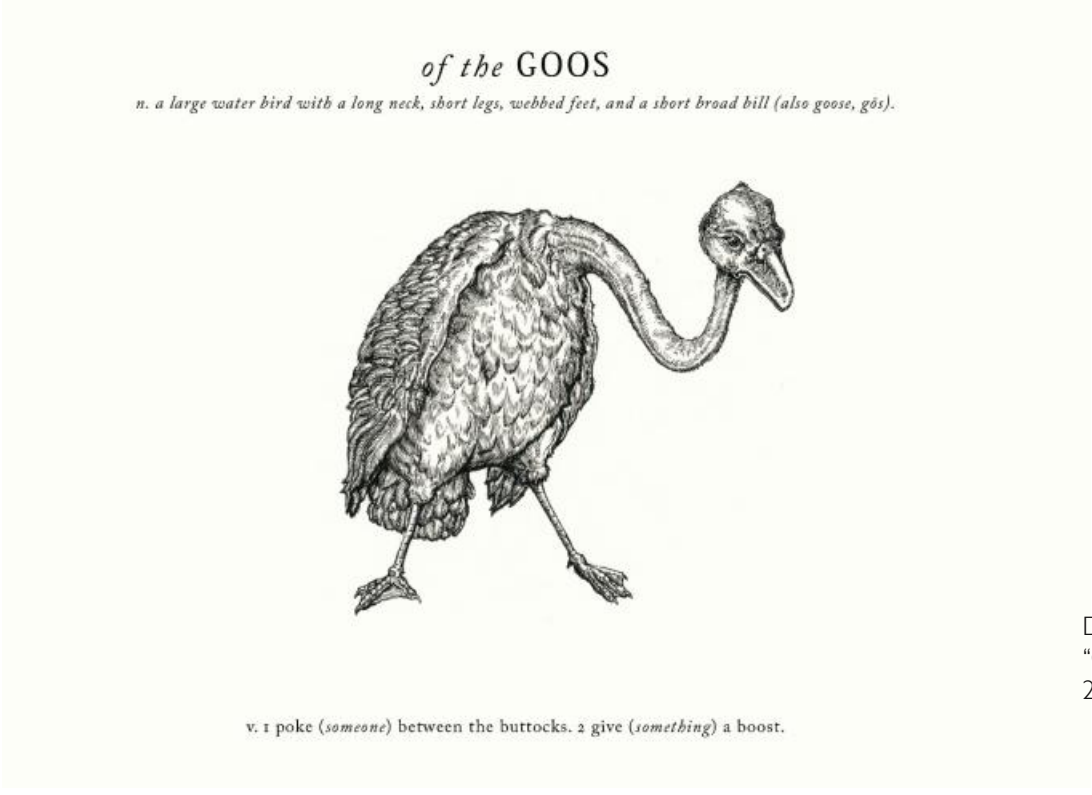
We need not embrace or endorse the extinct ideas of the nineteenth century to learn from them. Gould saw the diversity of the Burgess Shale as powerful evidence against all self-congratulatory visions of evolution as an upward path towards ourselves. It is easy, but not illuminating, to dismiss the cranks of the past. What if we approached them instead as paleontologists approach the Burgess Shale? We might well ask, what was it about the nineteenth century that allowed such intellectual diversity to flourish? And what changes in that intellectual environment led to the mass extinction of so many theories, pseudosciences, and memes?

The eighteenth century—Ben Franklin's day—had been marked in both Britain and America by the scarcity and control of information. As the historian Richard Brown put it, "the most obvious feature of the American information environment at the beginning of the eighteenth century was the relative scarcity of information, its limited topical range, and the crucial importance of social stature … in determining who possessed access." Franklin himself did agitate for more open flow of information. Knowledge should not be locked in libraries and learned colleges, Franklin argued: "the great book of Nature is open to all." He promoted the circulation of newspapers, the postal service as a mass medium, and the democratization of science as a crucial civic good. In 1774, Franklin was fired as postmaster of all British colonies in America

after leaking government documents to the colonial press. (He became the first postmaster general of the United States the following year.) But then as now, the loudest advocates for the free circulation of information were often the most connected, and not always self-conscious about the privilege on which their access to information rested. As a printer, a postmaster, and an active participant in the trans-Atlantic republic of letters, Franklin was wired in to networks of fairly up-to-date information including scientific and technical knowledge, political and economic theory, gossip and current events. This set him apart from all but a few of his contemporaries. Information and learning were luxuries, available to only an elite few, and the authority to speak on most topics was tightly controlled by law and custom.

All this changed in the information explosion of the nineteenth century. Cheap print and a profusion of presses cranked out a flood of books, pamphlets, newspapers, and broadsides. Technology played a role in this expansion, but just as important were political choices and cultural shifts. Rising literacy created a mass audience—or audiences—for the printed word, and a profusion of genres and styles both catered to and created new communities of politics and taste. Expanding and increasingly affordable postal services put all these documents in motion. Britain introduced a uniform penny post in 1840; the United States democratized its postal rates in 1847. In both countries, postal service represented a grand civic endeavor, a major investment in information infrastructure at a time when governments were relatively small and disinclined to intervene in economic life. By 1831, the United States Postal Service was bigger than the army and represented over three-quarters of the entire federal civilian work force. The French traveler Alexis de Tocqueville reported from the hinterland of the Appalachians in that year: "There is an astonishing circulation of letters and newspapers among these savage woods."

The first half of the century witnessed a similar explosion in public speech. Previously, secular oratory had been rare and confined to a narrow range of speakers and topics. By the 1820s and 1830s, public speaking had entered its own golden age. Reformers, educators,




Dale Lawrence
"Of the Goos"
2011

scientists, and salesmen combined information and entertainment to reach audiences big and small. Competition for eardrums, the attention economy of the nineteenth century, bred diversity rather than uniformity, with an audience for every opinion and a platform for every cause. The era's menagerie of warring political tribes—Greenbackers, Copperheads, Goldbugs, Anti-Masons, Anti-Monopolists, Yellow Dogs, and more—was one expression of this fragmentation. A bull market in millennial movements and religious splinter sects was another. By the middle of the century, Richard Brown concluded, "America had gone from a society where public information had been scarce, and chiefly under the control of the learned and wealthy few, to a society in which it was abundant and under no control other than the interests and appetites of a vast, popular public of consumers."

**Caricatures of the political activist as crank inventor were increasingly used to discredit political reform**

### The undisciplined age of science

As access to information exploded, science came along for the ride. For much of the nineteenth century, there was little effort to define the boundaries of legitimate and illegitimate science. For centuries before, the typical scholar of nature had not been a specialist but a generalist, dabbling in a variety of academic disciplines. Indeed, the term "scientist" only came into general use after the 1840s.

Americans in particular embraced the ideal of a democratic science, knowable and accessible to all. Franklin became the patron saint of this tradition in the century after his death—an exemplar of Yankee know-how and practicality, the archetypal "scientific American". The magazine of that name began publishing in 1845, promoting a Franklinian faith that the common man could, and should, be a participant in the worlds of science and technology. Scientific showmen like Benjamin Silliman and Edward Hitchcock reached huge audiences with lyceum lectures. Industrialists funded mechanics' institutes, public libraries, and technical schools to educate skilled workers (and to keep them out of pubs). The spread and popularity of such institutions encouraged hopes that widespread scientific enlightenment could be achieved. "The characteristic of our age," declared William Ellery Channing, "is not the improvement of science, rapid as this is, so much as its extension to all men."

The middle nineteenth century has been called the "democratic age" in Anglo-American science. One can easily overstate the egalitarianism of science in this era, just as one can overstate the egalitarianism of nineteenth-century democracy itself. But it is certainly true that amateurs and dabblers outnumbered professionals or specialists in the intellectual life of the period. The nineteenth century enjoyed, if not a democratic, certainly an undisciplined marketplace of ideas—undisciplined both in the sense that it lacked much order or restraint, but also in the sense that it lacked formal academic disciplines. The lines between science, politics, invention, reform, and entertainment remained blurry. And the lines dividing subfields within those fields had hardly yet been drawn. Autonomous faculties, specialized journals, and professional guilds were largely late nineteenth-century inventions. The hyper-narrow specialization of twentieth-century academe lay decades in the future.

The darker side of this intellectual diversity was a real hostility to expertise. In 1844, Oliver Wendell Holmes Senior—no populist he—warned the graduating class of doctors at Harvard Medical School that the rabble would balk at their professional authority. "The ultra-radical version of the

axiom that all men are born free and equal … has invaded the regions of science," Holmes declared. "The dogmas of the learned have lost their authority, but the dogmas of the ignorant rise… to take their place."

The result of all this was a fairly lawless marketplace of ideas where theories and practices flourished not because they were true but because they could find a buyer. Titles like "Doctor" and "Professor" were appropriated by anybody who wanted them. Barbers called themselves "professors," as did banjo teachers, tailors, phrenologists, and acrobats. Nineteenth-century Americans experienced medicine, one historian has written, "as a smorgasbord of possible panaceas, some from licensed doctors in their offices and some from quacks selling from carts on street corners." It would be hard to design an intellectual environment more hospitable to quackery and crankdom, to eccentric scholars and odd ideas.

Yet the climate changed as the nineteenth century wore on. As the leading edge of scientific knowledge advanced, most sciences became less descriptive and more abstract. The work being done in fields like physics, chemistry, and astronomy increasingly required trained specialists with expensive equipment. And virtually all of the disciplines developed elaborate theoretical structures and precise technical terms. Institutional changes mirrored and reinforced these trends. Professional societies became more formal and exclusive. Colleges and universities established graduate schools and specialized research institutions. Scientists and inventors became increasingly dependent on corporate or government funding. By the twentieth century, most inventions or advances could not be made by solitary dabblers but were the work of teams of professional researchers at elite universities or corporate labs. The growth and bureaucratization of government pushed political amateurs away from the levers and gears of democracy in much the same way.

This was a period of aggressive boundary work, as professionals of all sorts campaigned to consolidate their authority and purge their guilds of amateurs. Professionalization involved the identification and removal of dabblers and dilettantes. Terms like "crank" and "quack" were deployed as accusations and epithets as the older, participatory vision of democratic or undisciplined science declined. By the twentieth century, a would-be Franklin who dabbled simultaneously in electrical, political, and moral experiments would surely be dismissed as a kook or a crank.

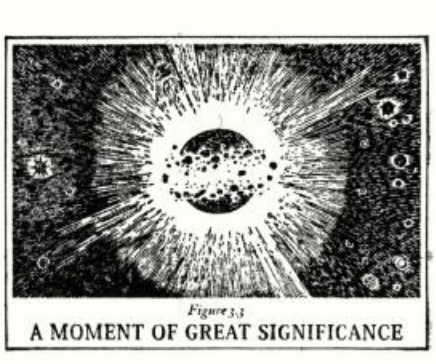


*Figure 3.3*
A MOMENT OF GREAT SIGNIFICANCE

## The politics of crankdom

Like scientific outsiders, radical reformers could be labeled "cranks" and "lunatics", and caricatures of the political activist as crank inventor or patent medicine quack were increasingly used to discredit political reform. The consistency of the label is remarkable. "Crank" was not a label that everybody used against their political opponents; it seemed to get used again and again in the same specific ways.

When the newspaper editor Horace Greeley ran for president against Ulysses Grant in 1872, he was compared to "the crank of a hand-organ, continually grinding out the same old tunes." The political cartoonist Thomas Nast, famous for his satirical images of Boss Tweed and Tammany Hall corruption, was equally cutting in depictions of Greeley as a crack-brained, pontificating crank. What was Horace Greeley's crime? He was a spiritualist, an

abolitionist, and a vegetarian. He was chubby, with wooly hair and little round glasses—a tempting target for Nast's pen. He did dabble in science and invention; he wrote a book about scientific farming that Nast worked into almost every cartoon of Greeley he drew. But Greeley also challenged the financial orthodoxies of the day. When the philosopher John Fiske was a librarian at Harvard in the 1870s, he undertook to cull Harvard's library of what he called "insane" or "eccentric literature". In an essay Fiske wrote about "Cranks and their Crotchets", what did he single out for particular ridicule? Not spiritualism, not phrenology, not perpetual motion, but free silver and financial reform.

Remember Mayor Harrison, who welcomed the convention of pro-silver cranks and lunatics to Chicago? Three months after the convention, Harrison was assassinated, shot by a disturbed young man named Patrick Prendergast. Prendergast was, it turned out, something of a crank. He was an obsessive advocate of Henry George's single tax, who wrote long rambling letters to just about everybody in Chicago's public life. His trial, in which he was represented by Clarence Darrow, turned on the question of whether Prendergast was a true "lunatic"—that is, medically and legally insane—or simply a dangerous political "crank". Because of his political leanings, the prosecution was able to convince the jury of the latter. Prendergast hung, in part, for his crankdom.

We should not be surprised that the crank story ended up intertwined with the money question. The money debate was for post-Civil War America a burning, hugely divisive issue. It fired passions and invited ordinary Americans to argue over the nature of their country and its new corporate economy. *Coin's Financial School*, a pro-silver treatise that John Fiske ridiculed as alchemy, sold one million copies in the 1890s. How many books about fiscal policy are read by one million ordinary Americans today? Yet the money debate is now remembered, if at all, as something abstract and arcane. This is a measure of how thoroughly financial conservatives discredited their populist foes. Defenders of the gold standard associated monetary reform convincingly and damningly with all manner of crack-brained inventions and mechanical schemes. Would-be reformers pushed back, but by the turn of the century they were ever more marginal. The twentieth century would be the age of the expert—an era of highly specialized knowledge, of clearly defined guilds and hierarchies of professional authority and expertise.

**Crank 2.0**

But as we've seen, the world has turned. The doomsayers and the cheerleaders for our Web 2.0 world all seem to agree that the old hierarchies of knowledge and expertise have been toppled or outflanked. Maybe the twentieth century will prove to be the aberration, with its professional guilds, its elevation of experts, and all its powerful tools for letting a few insiders speak to and for everybody else. If we are entering a new era of undisciplined knowledge and innovation, it is worth looking back at the last such age. History remembers few eras as innovative as the late nineteenth century, at least in technological terms. But one would also have a hard time naming a period that embraced more flavors of pernicious nonsense. Is that the trade-off on the table? Are we entering a new golden age of pseudoscientists, quacks, and cranks?

The parallels are persuasive. As in the nineteenth century, our own information explosion was triggered by technological changes, but cultural and political factors give it form. The Internet is both printing press and postal service on a scale that Franklin's ghost would never have believed. We use it to connect across continents and oceans, even as we subdivide, like our nineteenth-century forebears, into tribes of affinity, opinion, and taste. Web culture is a kind of consilience

engine, mashing up data and weaving connections between disciplinary silos. Today's blogs bear a remarkable resemblance to the newspapers of the antebellum era: a motley banquet of individual, often partisan voices, with much content clipped and "curated" from other sources. Contemporary distrust of experts and disillusionment with traditional institutions inspires hopes for new models of online participation, while simultaneously fueling the new crankdom. Frightening economic, political, and environmental challenges ensure high demand for simple cures and easy answers.

One might wish to draw a line between scientific and political cranks. Cold fusion is a crank idea because it doesn't work; it is harder to be as definitive about fringe ideas in politics or economics. Yet in the history of crankdom, such distinctions are rarely respected. John Murray Spear's quest for perpetual motion was never really about the laws of thermodynamics. And who can claim that the battle between creation and evolution is not as much about politics as science? Confronted with tenacious pseudosciences like creationism, or the pseudohistorical beliefs of the 9/11 "Truth" movement and the Birthers, we could just cluck our tongues at the foolishness of the inexpert masses. But maybe it would it be more fruitful to ask, like a paleontologist at the Burgess Shale, what intellectual niche does this community inhabit? What emotional or intellectual functions does this belief fulfill?

There is much to be said for guilds and hierarchies of authority and expertise. But they have their costs. The scientific experts of the early twentieth century overturned all manner of superstitions. They also drastically narrowed the acceptable range of inquiry and belief. Progressive-era political experts made government more efficient but less accountable, pushing ordinary citizens away from the machinery of politics and contributing to what Lawrence Goodwyn called a "mass folkway of political resignation." At a time when political apathy and scientific illiteracy are widespread, there might be something to learn from a moment when so many were so fiercely engaged, and so certain there must be a solution to all the world's woes. We may expect our new century to be profoundly innovative—but we must also anticipate our share of eccentrics, quacks, and cranks.

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## About the artist

**Dale Lawrence** is a twenty-three year old artist from Cape Town, South Africa. In 2009, Dale graduated with a degree in graphic design from the AAA School of Advertising, followed in 2010 by a post-graduate diploma in Fine Art (New Media) at the University of Cape Town's Michaelis School of Fine Art. Dale was awarded membership to the International Society of Typographic Designers in 2009. He currently lives and works as an artist in his home city. His other works can be viewed here (http://www.behance.net/DaleLawrence/frame) and on his blog *Ostensibly, Yes* ( http://ostensiblyyes.blogspot.com/).

Priscila Floriano, "Fairy tales project - Little Red Riding Hood", 2011

# The singularity

## *What made The White Stripes unique is what will make the band's influence last*

BY LUKE GRUNDY

ART BY PRISCILA FLORIANO, GUSTAVE STUDIO CRÉATIF, AND MARCOS TORRES

Son House was a pioneering blues musician in the twentieth century who, along with now well-regarded talents like Robert Johnson, Charley Patton, and Willie Brown, helped to mould the inimitable Delta blues genre which would capture the imagination of young musicians for the next eighty years and beyond. Their lives were not easy as young black men in the hostile South, but their music was nevertheless wonderful, telling tales of unimaginable hardships and praying for the fulfillment of their dreams.

One boy who found solace in the music of Son House was a young Detroit native named John Gillis. He would sit listening to old blues vinyls, and recorded covers on a reel-to-reel tape in his attic. Gillis was considering becoming a priest, but having just gotten a new amplifier (which he wasn't sure he could take with him to the seminary), he decided against it. Some twelve years later,

this same boy, now named Jack White, was on stage in Detroit playing a show with his wife Meg, a local bartender.

The sign on the door read "The White Stripes".

Fourteen years and six albums later, on February 2nd 2011, The White Stripes announced they would no longer be making music together. This was not due to arguments or "creative differences", the band wrote on its website, but "to preserve what is beautiful and special about the band and have it stay that way... The White Stripes belong to you now."

The announcement was greeted with genuine sorrow by critics and fans worldwide. Yet the joy that The White Stripes fostered in their listenership cannot be ignored; the split, whilst upsetting for those who love the band, also enables us to think about the impact they've had since that first gig in 1997. Just as

the music of some of those early blues legends was only truly appreciated after their deaths, so too the Stripes' music can be posthumously credited with even more significance than it was given during its production.

The biggest question about The White Stripes' music was, and probably always will be, how you define it. It's been categorized as blues, punk, rock, metal, singer-songwriter, country, grunge, and everything in between, but the truth is that there will likely never be a conclusion to this debate.

The White Stripes' hybridization of seemingly disparate styles is what lies at the centre of their enduring appeal; truly original bands are becoming a rare commodity, but the Stripes were the best of this increasingly endangered species. Jack and Meg's music is like a difficult new recipe: full of ingredients which individually would leave a sour taste, but which, when combined by a master chef, go together so well you wonder why no-one else has ever tried it.

David Roger, Caroline Leduc, Karine Bernier (Gustave Studio Créatif), "La Nuit", 2009

There will always be imitators, but it's difficult to envisage a group combining these ideas and sounds with the same dexterity and punch that the Detroit band did. The idea of uniting these styles would seem impossible to most due to the patent contrast between punk, rock, and blues, yet through a combination of willpower and musical skill, The White Stripes managed to concoct a sound with a footing in all three, and many more besides.

Of these three genres—arguably the most prevalent styles audible on any Stripes recording—it's the last of them which is the most important, Jack's searing guitar lines beating with a blues heart underneath his distortion, using Meg's drum patterns as springboards from which to launch new ideas and solos. Meg, by the way, has often been criticised for not being the raw creative force that Jack is, and for failing to push her drum beats beyond the borders of simple 1-2-3-4, but to diminish her importance to such an extent would be churlish. Obviously Jack was always the experimenter, the magician in the band, and his free-wheeling brilliance is unquestionable, bordering on genius. Yet every genius needs his counterpoint, whether it's Bernie Taupin for Elton John or John Lennon for Paul McCartney (and vice versa). The argument is often made that Meg did not contribute enough to the band's sound, yet anyone who's heard "Seven Nation Army" will know exactly where the drums come in and drop out. Are her parts complex? No. Are they easy to play? Absolutely. But the simplicity of the drums on the Stripes' albums helps to ground them, and without the stoically simple beats Meg provided, Jack's boisterous guitar lines could have easily

turned from tightly-crafted solos into overly complex, unlistenable musical masturbation. Meg, so clearly important to Jack on a personal level, added structure to his musical style, and stopped the Stripes turning into a one-man, ten-minute guitar solo band. She's certainly not the best drummer to ever pick up the sticks, but Meg White was vital to the sound of the Stripes. Simply put: no Meg, no Jack, no White Stripes.

But the blues was always the foundation. Listen back to the first two White Stripes albums—*The White Stripes* and *De Stijl*—and you can hear the blues power which would become a hallmark of their music, sown like a musical seed which would continue to flourish for more than a decade.

These first two records are probably those which owe the greatest debt to the old Southern bluesmen who inspired Jack in his teenage years: not just because they include covers of Son House's "Death Letter" and Blind Willie McTell's "Your Southern Can Is Mine" (amongst several others), but because they spill over with the blues. The distortion which Jack deploys with such regularity may make his guitar sound more like Weezer than Willie Brown, but underneath he churns out riffs and melody lines which call the Delta to mind: hear the off-beat sass in "When I Hear My Name" (*The White Stripes*) or the slide riff of "Little Bird" (*De Stijl*) and the echoes of these blues troubadours ring out clearer than a lone voice in an empty concert hall. Jack dedicated *The White Stripes* to Son House, and it's not hard to see why: their underrated début—and its follow-up—owe a huge amount to the bluesmen who honed their craft in the bars of Georgia and Mississippi.

After the far more widespread success of *White Blood Cells* in 2001, the sharpening of the Stripes' own sound was audible. Where the first two records featured short tracks based on fearsome riffs, the rest of the Stripes' work reflected a far more diverse set of

Gustave Studio Créatif, "La Nuit", 2009

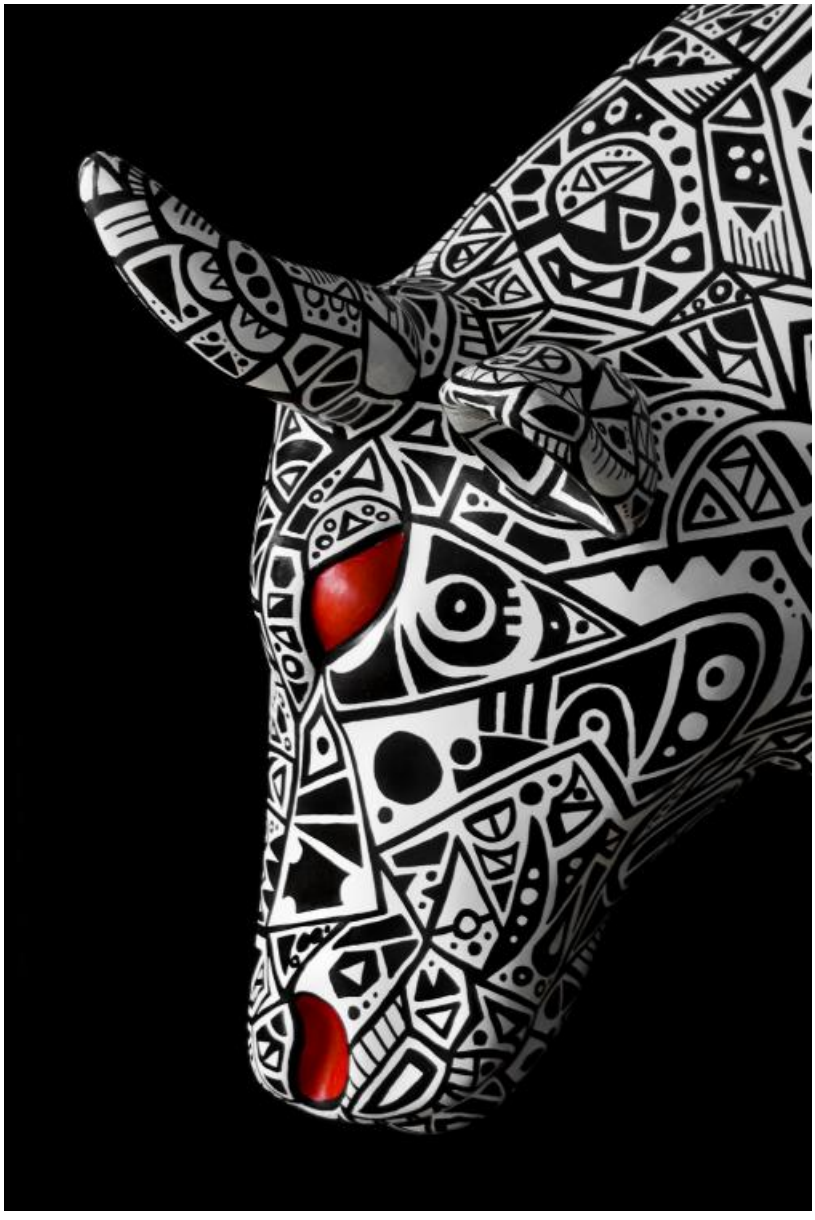
influences. The punked-up blues of their début albums did not disappear, but it now acted as the foundation for a more dynamic and daring musical design.

The influence of The Doors, Pavement, MC5, The Stooges, and even Motown soul, started to find its way into the group's musical potion. The influence of The Velvet Underground, in particular, cannot be ignored: tracks like "Rag and Bone" (*Icky Thump*) and "The Hardest Button to Button" (*Elephant*) combine rhythmic melodies with poetic, spoken-word lyrics in the same way that Lou Reed's group once did, Jack's throaty vocal style intertwining with the instrumentation rather than competing against it.

# The hugely enigmatic Detroit duo made the kind of music that doesn't start trends so much as bulldoze them off the map

*Get Behind Me Satan*, the Stripes' penultimate album, is the best example of the sheer daring and magnificent idiosyncrasy the group possessed. The first track, "Blue Orchid", is an insistent, thudding rocker, with a hugely distorted, Sonic Youth-esque central riff. "The Nurse" follows, using a marimba and vocal lead but injecting bursts of punk guitar and drums, and "My Doorbell", the third track, is a blues-pop wonder, its lyrics reminiscent of soulful Motown shouts: "make a sound and I'll make you feel right... Right at home". The album also contains a countrified piano number—"I'm Lonely (But I Ain't That Lonely Yet)"—along with a thirty-second song about incest which incorporates a timpani ("Passive Manipulation") and an unapologetically loud punk-blues headbanger, "Red Rain".

Marcos Torres, "Mecanicow" (2010); photo by Alexandre Raupp



Would another band dare, much less complete, such a dauntingly diverse record? And would it sound this good? The answer to both questions is no, and herein lies the genius of The Stripes: they did what no other band, past or present, could have done. This may sound like gross hyperbole, but the hugely enigmatic Detroit duo made the kind of music that doesn't start trends so much as bulldoze them off the map: Jack and Meg refused to compromise their music or themselves, and they shoved lesser groups into the shadows simply by releasing their next single.

There are six fantastic albums out there from The White Stripes already, and selfishly we all would like more, but given the finality with which the band issued their statement of intent, and the resolution with which they stuck to their musical ideas, it is hard to imagine there being a U-turn ahead.

The influence of the Stripes on current and future bands, however, is clear. Although groups have been influenced by the blues for decades now—The Rolling Stones and Led Zeppelin being two of the old guard who frequently drew on it—the manner in which Jack and Meg incorporated it into their music is likely to be a touchstone for dozens of bands to come. They were able to harness the

# The albums extant


| The White Stripes, 1999 |


| De Stijl, 2000 |

| White Blood Cells, 2001 |

| Elephant, 2003 |

| Get Behind Me Satan, 2005 |


| Icky Thump, 2007 |

individual brilliance of Jack's guitar without making every song a lengthy solo, and were one of few groups to really pay homage to the acts that inspired them. The White Stripes defined an aesthetic and a music that inspires emulation.

So which bands are poised to inherit the mantle? Jack and Meg White were a complete one-off, both in musical and personal terms, and it's clear that one group alone is not going to be able to fill the gap—but there are a few groups who could be favourably compared to the duo.

Jack White's ongoing blues-punk supergroup The Dead Weather shares a direct bloodline with the Stripes—they're certainly the closest musically—and should be the first port of call for anyone searching for White Stripes methadone, especially since The Raconteurs, White's other side-project, are facing an uncertain future.

Other bands are not hard to identify. The sheer power of Queens of the Stone Age and Them Crooked Vultures, the inventiveness of Modest Mouse, and the bordering-on-lunacy stagecraft of the Yeah Yeah Yeahs are all reminiscent of the Stripes, but the list also reminds us that Jack and Meg encapsulated all of these strains; if we were somehow able to collect the best elements of each band, we'd be close to re-assembling the Stripes' sound.

To me, the band that seems best suited to carry on the legacy of The White Stripes is another duo from America's Midwest, The Black Keys. Dan Auerbach and Patrick Carney have been on stage together since 2001, and their most recent offering, *Brothers*, earned them a Grammy for Best Alternative Album. Having already released six full studio albums, the Keys have a sizeable back-catalogue which merits full investigation, and with *Brothers* they struck a note familiar to Stripes fans, mixing the soulful roots of the blues with the mania of punk and the force of rock.

Finally, for those already familiar with The Keys, Kentuckian five-piece Cage The Elephant offer another option for bereft Stripes widows and widowers. The group, led by brothers Matthew and Brad Shultz, have attained notoriety for the energy of their live shows, and their most recent record, *Thank You Happy Birthday*, is a mixed bag of ideas which shows the same fearlessness and desire to experiment which served Jack and Meg so well for the best part of fifteen years.

It's all but impossible to classify, define, or summarise the music that The White Stripes produced. You can point to any location on the musical map and find a connection to their portmanteau musical style, and arguments will rage for years about who was their biggest influence.

One thing, though, is certain: most bands making rock music for the next ten years will have listened to The White Stripes, and while not every musician who's ever heard their records will cite them as an influence—and not all will even like them—their music will still sound fresh, immediate, unforgettably unique. And that is a fitting epitaph.

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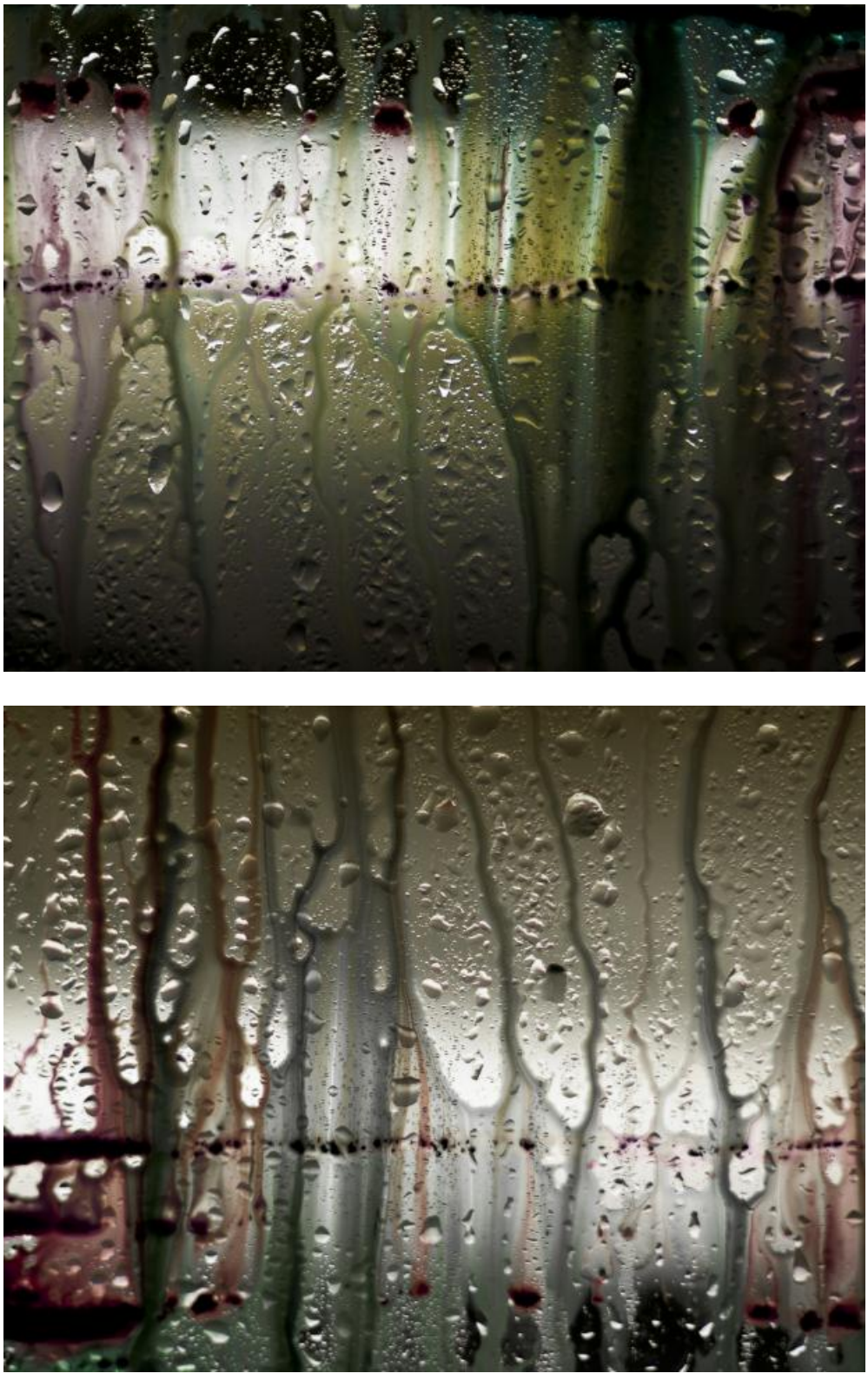
**Luke Grundy** is a writer living in London, UK, who spends most of his time indulging his twin loves of music and film. As well as contributing to *SCOPE*, he writes for *The Independent* and maintains his music and film blog, Odessa & Tucson: http://odessatucson.wordpress.com

**The artists**

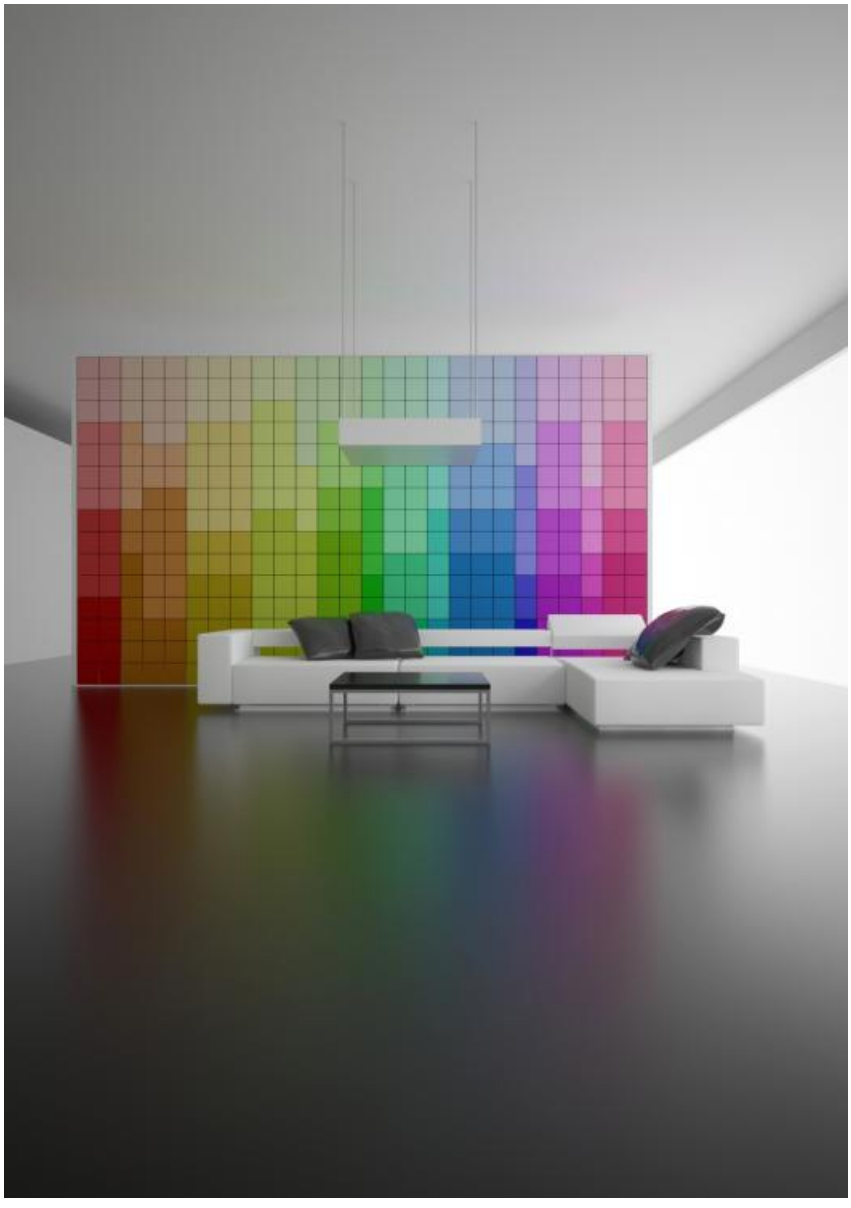
**Priscila Floriano**: http://priscilafloriano.com
**David Roger, Caroline Leduc, Karine Bernier** (Gustave Studio Créatif): http://www.gustavestudio.ca/
**Marcos Torres**: http://marcostorres.info/

# Spectacle

| **Levi van Veluw: Origin of the Beginning (2011)** |
http://www.levivanveluw.nl/



| **Caroline Leduc, Gustave Studio Créatif: Ambiguïté (2010)** |
http://www.gustavestudio.ca/




| **Amirkhan Abdurakhmanov: "CHANGE IT" prism-based wall concept** |
http://www.behance.net/Amirko

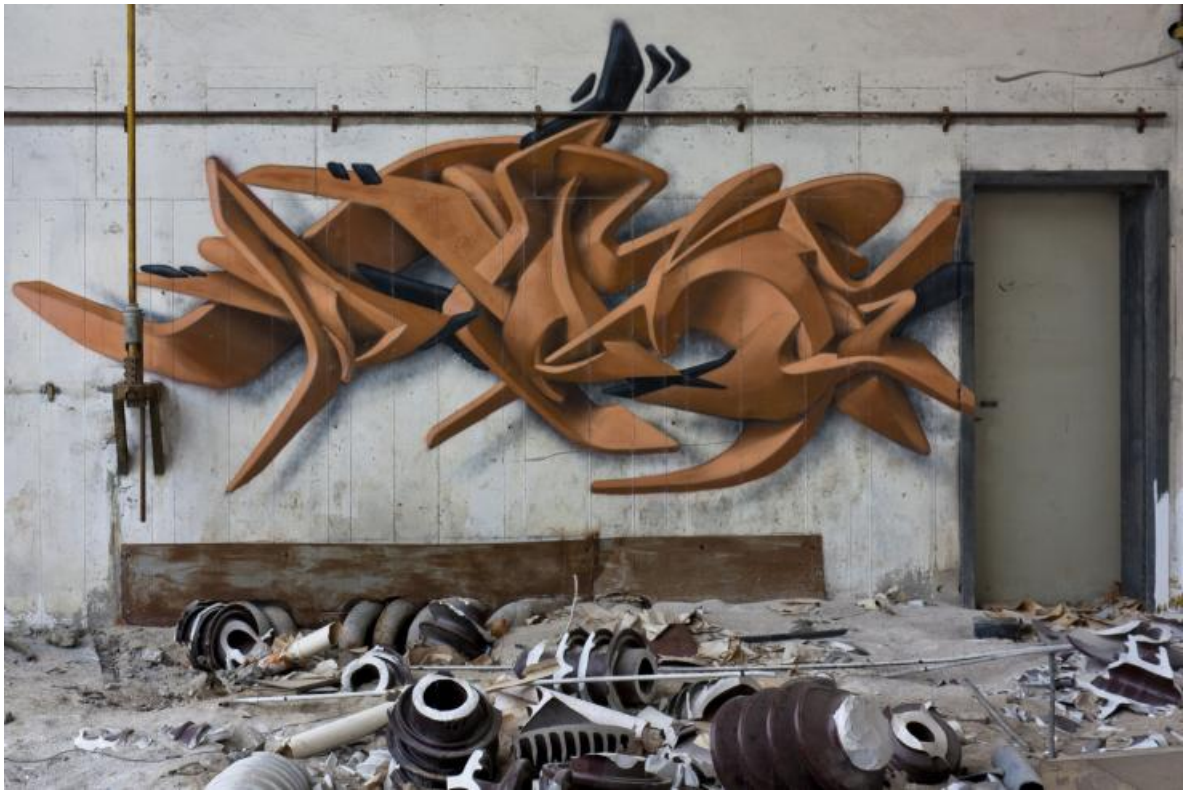
| **Michael Cina: Apex (2009)** |
http://www.cinaart.com/




| **Kevin Bauman, from 100 Abandoned Houses (ongoing project)** |
http://www.100abandonedhouses.com

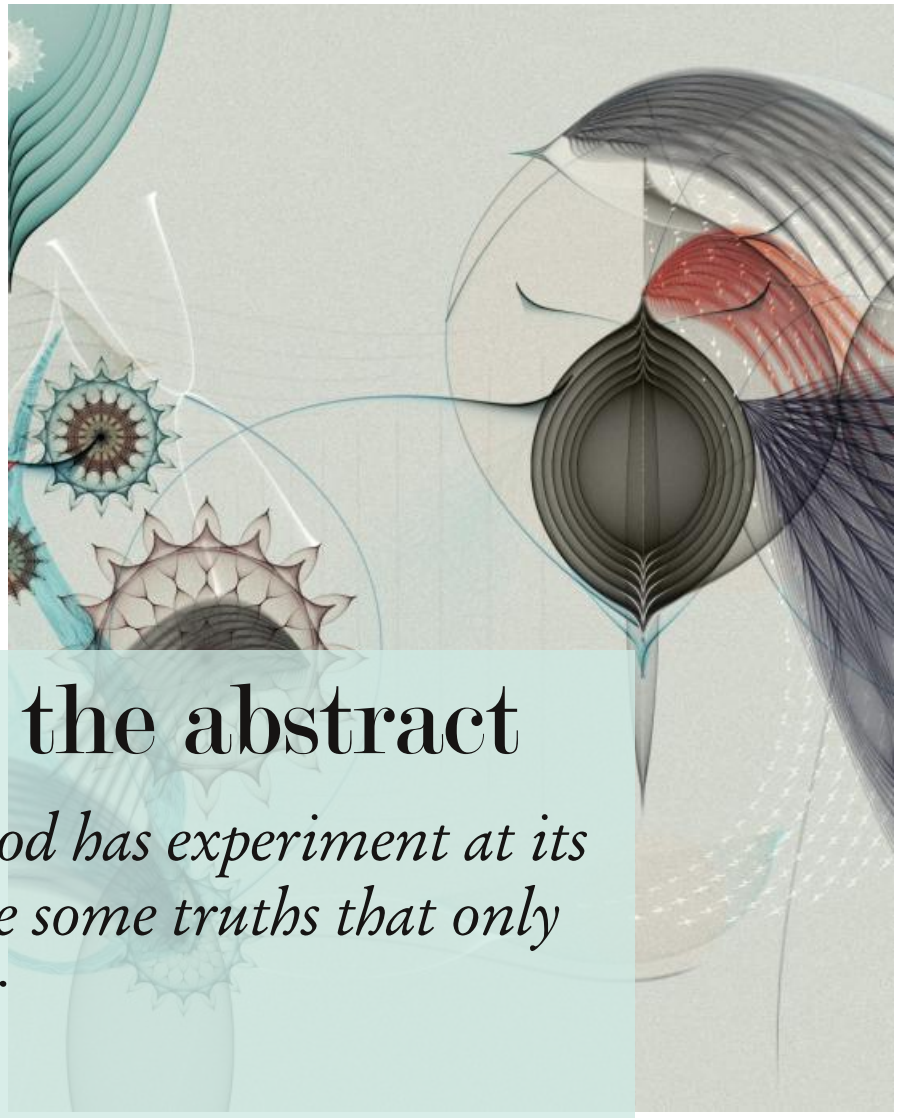
| **Matthew Bradshaw and Sergio Silva, Silva/Bradshaw: "Play" Munny (2010)** |
http://www.silvabradshaw.com

| **Wissam Shawkat: Love Flower (2011)** |
http://www.wissamshawkat.com



| **Peeta: Two works, Venice industrial port area (2011 top, 2009 bottom)** |
**Photos by Lenny Morandin**
http://www.peeta.net

Cristian Boian, "Attempts" series, 2011



# The way of the abstract

## *The scientific method has experiment at its heart—but there are some truths that only theory can uncover*

BY GIOVANNI VIGNALE

ART BY CRISTIAN BOIAN

Physics, most of us would agree, is the basic science of nature. Its purpose is to discover the laws of the natural world. Do such laws exist? Well, the success of physics at identifying some of them proves, in retrospect, that they do exist. Or, at least, it proves that there are Laws of Physics, which we can safely assume to be Laws of Nature.

Granted, it may be difficult to discern this lofty purpose when all one hears in an introductory course is about flying projectiles and swinging pendulums, strings under tension and beams in equilibrium. But at the beginning of the enterprise there were some truly fundamental questions such as: the nature of matter, the character of the forces that bind it together, the origin of order, the fate of the universe. For centuries humankind had been puzzling over these

Adapted from *The Beautiful Invisible: Creativity, Imagination, and Theoretical Physics*, by Giovanni Vignale (Oxford University Press, 2011)

questions, coming up with metaphysical and fantastic answers. And it stumbled, and it stumbled, until one day—and here I quote the great Austrian writer and ironist, Robert Musil:

> . . . it did what every sensible child does after trying to walk too soon; it sat down on the ground, contacting the earth with a most dependable if not very noble part of its anatomy, in short, that part on which one sits. The amazing thing is that the earth showed itself uncommonly receptive, and ever since that moment of contact has allowed men to entice inventions, conveniences, and discoveries out of it in quantities bordering on the miraculous.

This was the beginning of physics and, actually, of all science: an orgy of matter-of-factness after centuries of theology. Careful and systematic observation of reality, coupled with quantitative analysis of data and an egregious indifference to theories that could not be tested by experiment became the hallmark of every serious investigation into the nature of things.

But even as they were busy observing and experimenting, the pioneers of physics did not fail to notice a peculiar feature of their discipline. Namely, they realized that the laws of nature were best expressed in an abstract mathematical language—a language of triangles and circles and limits—which, at first sight, stood almost at odds with the touted matter-of-factness of experimental science. As time went by, it became clear that mathematics was much more than a computational tool: it had a life of its own. Things could be *discovered* by mathematics. John Adams and, independently, Urbain Le Verrier, using Newton's theory of gravity, computed the orbit of Uranus and found that it deviated from the observed one. Rather than giving up, they did another calculation showing that the orbit of Uranus could be explained if there were another planet pulling on Uranus according to Newton's law of gravity. Such a planet had never been seen, but Adams and Le Verrier told the astronomers where to look for it. And, lo and behold, the planet—Neptune—was there, waiting to be discovered. That was in 1846.

Even this great achievement pales in comparison with things that happened later. In the 1860s, James Clerk Maxwell trusted mathematics —and not just the results of a calculation, but the abstract structure of a set of equations—to predict the existence of electromagnetic waves. And electromagnetic waves (of which visible light is an example) were controllably produced in the lab shortly afterwards.

In the 1870s Ludwig Boltzmann undertook the task of finding out, by mathematical analysis, how a hypothetical world made of *atoms* would behave. Nobody had seen an atom, and very few believed seriously in what, at the time, must have looked like a very artificial concept. With the help of a revolutionary mathematical approach in which probability was the main actor, Boltzmann was able to show that his artificial world behaved pretty much like the real world. At least, the behaviour of gases was the same!

These examples illustrate three different ways of practising the strange kind of science known today as *theoretical physics*. In the first, one applies a general theory, summarized in a set of mathematical equations, to the solution of a concrete problem. In the second, one plays with the mathematics to find new equations that are more satisfactory from an intellectual, aesthetical, or practical point of view. Finally in the third way—the Boltzmann way—one

**Mathematics was more than a tool: it had a life of its own. Things could be discovered by mathematics**

constructs an artificial world with building blocks that obey the laws of a previously established theory. Then one tries to find out whether the behaviour of this artificial world matches the behaviour of the real one.

By the early twentieth century theoretical physics had become a well established science within the science. The two great triumphs of that period—relativity and quantum mechanics—spawned a host of revolutionary concepts such as "antimatter" and "black holes", which were discovered in later experiments and have since become staples of popular scientific literature. No other science, as far as I know, can boast a comparable record of successful predictions. And yet, at the beginning of the twenty-first century theoretical physics stands aloof in the middle of a culture that is deeply suspicious of abstract thought. Indeed, to many people a theory is the exact opposite of a science. The very word "theory" suggests a loss of contact with reality, which in turn evokes a lack of vital strength, of feeling, of generosity—in short of all the virtues that are most prized in a human being.

But this prejudice is largely the result of a confusion between abstraction and formality —a point to which we shall return later. In reality, theory is one of the highest forms of knowledge to which we can aspire. Building a theory is basically the same as recreating the world in a way that makes it meaningful to us on all levels (not only the rational one). It is an attempt to create a connection with a universe that would otherwise remain mysterious and indifferent.

An engineer turned writer, Robert Musil dreamed of applying rational methods to what he dubbed "the non-ratioid sphere"—the realm of unmeasurable, irreproducible phenomena of the spirit. Once, in an interview, he said: "I am not interested in the real explanation of real facts. My memory is bad. Furthermore, facts are always interchangeable. I am interested in the spiritually typical, I could even say: in the spectral dimension of what happens".

This statement may well serve as an introduction to the theorist's view of the world. I don't think that my colleagues will be offended if I say that, like Musil, we have bad memory, and intensely dislike carrying around large amounts of information. We'd rather keep in mind a few key ideas from which everything else can be worked out. The power of these ideas lies in their universality, i.e. in the fact that they unify large classes of apparently different phenomena. "Nature uses only the longest threads to weave her patterns, so each small piece of her fabric reveals the organization of the entire tapestry," wrote Richard Feynman, one of the legendary theoretical physicists of the twentieth century.

Undoubtedly, this view of the world runs counter to some of our most powerful instincts, which urge us to concentrate on what is near and present, to prefer details to generalities, to react promptly and vigorously to small changes, and to resort to abstract thinking only when everything else fails. Facts are definitely not interchangeable when your survival depends on them. On the other hand, the theoretical mind is like a glass, which splits the incoming light into its component colours. These component colours constitute the "spectral dimension of what happens".

According to Plato's myth of the cave, everything we perceive in this world is the imperfect shadow of a perfectly formed idea, which gloriously shines in an ideal world beyond the stars. It is called "the myth of the cave" because the shadows appear on the end wall of a cave wherein we humans are imprisoned. Thinking of component colours brings to mind a different metaphor: the rainbow. Our perceptions are not like the shadows of a higher reality, but like the patterns that we are able to make out on a sea of microscopic droplets—the latter being actually a lower, not a higher reality. On that background shine the rainbows of our

perceptions, and on the background of our perceptions shine the rainbows of our theories, which, like all rainbows, are visible only from the right distance and proper angle.

Building theories is not as easy as it might sound. One must walk a fine line between dismissing a huge amount of detailed information and intensifying the "spectral dimension of what happens". Discarding information is as important as gathering it. Discard too much, and you are left with a soulless abstraction. Discard too little and you are trapped in a labyrinth of complexity. By discarding the right amount, one creates something that is somehow more real than reality—a metaphorically exact world. "Fantastic precision" is the name of the game. Dream up possibilities, visualize them, analyze them with honesty and courage, with all the powers of your being, rational and not. Theory grows at the confluence of fantasy and truth.

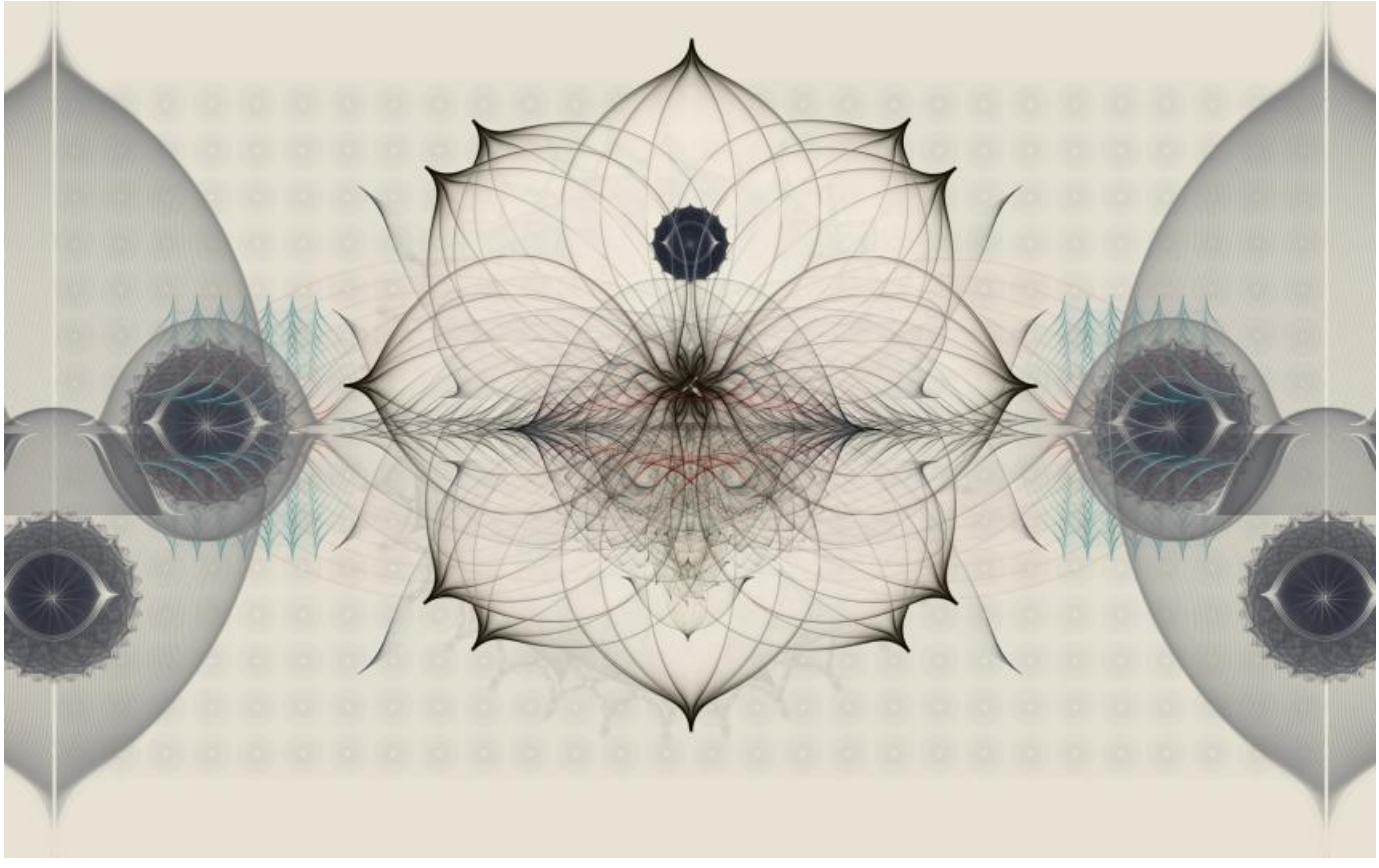
The great inventor and electrical engineer Nikola Tesla was a visionary of the highest power, who saw engines in his mind before seeing them in the lab.

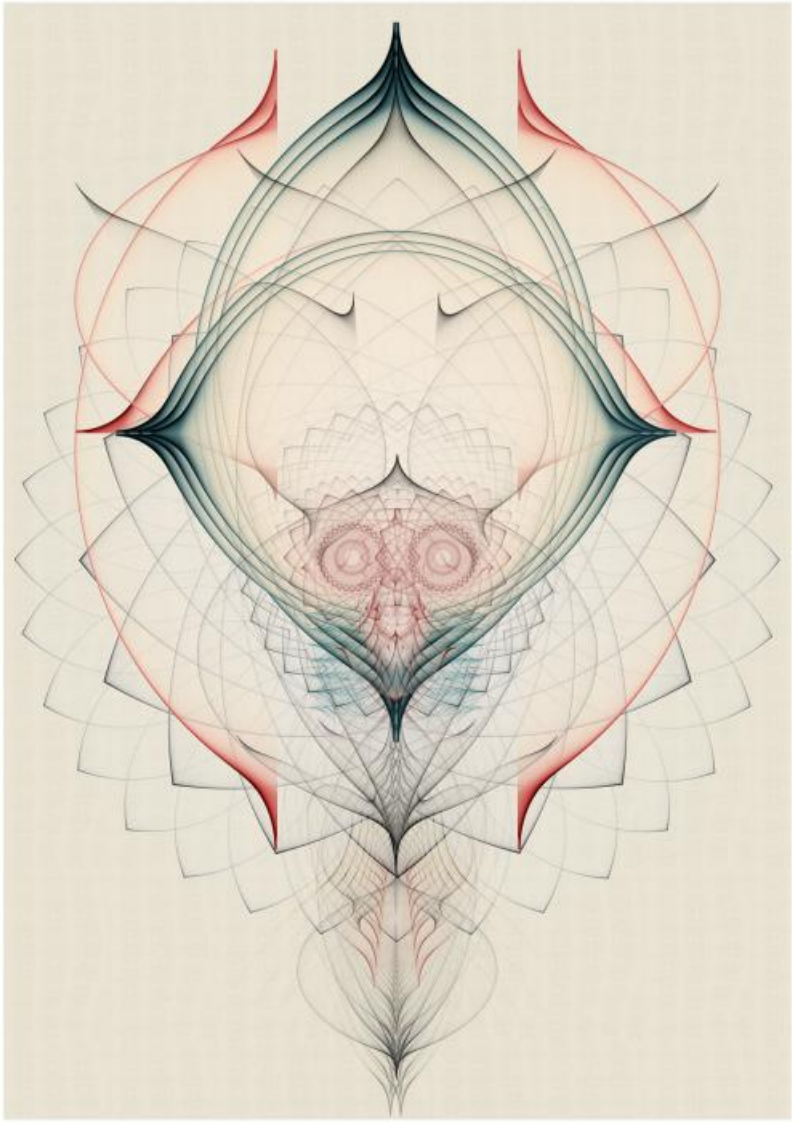
> When I get an idea I start at once building it up in my imagination. I change the construction, make improvements and operate the device in my mind. It is absolutely immaterial to me whether I run my turbine in thought or test it in my shop. I even notice if it is out of balance . . . Invariably my device works as I conceived that it should . . . Why should it be otherwise?

The deadpan humour of this quote should not obscure the main point: visions can be wrong or out of balance, like turbines; there is precision in fantasy.

The relation between fact and fiction, fantasy and truth, lies at the heart of Mikhail Bulgakov's great novel *The Master and*

Cristian Boian, "Attempts" series, 2011





Cristian Boian, "Attempts" series, 2011

*Margarita*. The novel unfolds against the background of the atheistic, matter-of-fact culture of the Soviet Union in the 1920s. The Master is a great writer, author of a fantastic novel about Jesus and his prosecutor Pontius Pilate. There is a deliberate confusion between the two novels—the one we are actually reading and the one we are reading about. Like Bulgakov's novel, the Master's novel has been soundly thrashed by the critics. Like Bulgakov, the Master has burned the manuscript and suffered a nervous breakdown. Now languishing in a mental asylum, he learns from a fellow inmate that a certain Professor Woland—a foreign expert in black magic—has come to Moscow and is lecturing about the life of Jesus. Professor Woland claims to have been present at the interrogation of Jesus by Pilate, and his account of the facts confirms word by word the Master's manuscript. What is the Master's reaction? Anger? Surprise? Disappointment? Does he accuse Professor Woland of plagiarism? Not at all. He folds his hands as if in prayer and whispers "Oh, I guessed right! I guessed everything right!"

One must appreciate the peculiar point of view from which the story of Jesus and Pilate is told within *The Master and Margarita*. It is not the point of view of a reporter and it is not that of an ordinary eyewitness: it is 100% the point of view of the fantastic writer—a point of view that happens to coincide with that of the supernatural eyewitness, Professor Woland, alias the Devil. And it is precisely this fantastic point of view that makes the story 100% true and exact, as opposed to just another newspaper report.

How does the Master manage to grasp the truth that has been murdered by politicians, muddled up by unreliable witnesses? Apparently, by dreaming it up, or, in his own words, by guessing it. But the dream is one of excruciating precision, an artist's *via dolorosa*, where every detail captures the essence of reality so accurately and truthfully that questions such as "Did it really happen?", "Did it really exist?" become a concern for those who have already missed the point. The Master is a great artist, but also a model for the theoretical physicist.

Fantastic precision is a difficult art. Coming up with a good theory in science is not just difficult; it is almost impossible. Yes, we are steadily bombarded by fancy ideas about angels and demons and invisible forces and fields, but most of these fantasies lack the essential feature of precision. They are cheap speculations, or remakes of ancient theories that were once alive. In fact, almost every product of our imagination is bound to be ultimately crushed by reality. One can say of theory what the anonymous author of the

*Carmina Burana* said of fortune: "she has a fine head of hair, but when it comes to seizing an opportunity, she is bald". This is why, whenever a real insight occurs, which seems free of contradiction as far as one can see, and pulls together many facts, and is therefore beautiful; we salute it as a momentous event. If, furthermore, the theory has predictive power—as should always be the case in science—then it is hard to avoid the conclusion that there must exist a real feature of the world—an objective reality—which is correctly described by that theory. Just as to many people the origin of life would be inexplicable without a Creator, so to most scientists the success of a theory would be inexplicable without an objective reality behind it. The theory is canonized in textbooks; it spawns churches and authorities; it dictates the correct interpretation of the facts. Time goes by, and we see the daughter of a daring imagination lose its inner fire, forget that it could have been different, wither up to dogma. But no theory is so good that it is not permanently at risk of being superseded by deeper insights and generalizations.

I would like to dispel a confusion that often arises between two attitudes that look superficially similar, but are really as different as day and night. I am talking of the confusion between formality and abstraction. The latter is human—it has emotional content. Formality is what is left of abstraction after the emotional content has boiled away. It is the abstract reduced to convention.

At its best, a formalism is a way to organize our thinking so that we don't waste time rediscovering certain basic steps of reasoning, but focus our intellectual energy on what is truly new and challenging. It is like the automatism of the fingers allowing the pianist to concentrate on the spirit of the music. A good example in point is the use of algebra to deal with unknown quantities as if they were already known. Precise rules of manipulation allow us to do this very efficiently, without much intellectual effort. Actual numerical values are "plugged in" only at the very last stage in the solution of a problem. This is how, for example, your banker can tell you at a moment's notice the amount of the monthly payment that will repay a debt of D dollars in M months at an interest rate of I per cent, leaving you plenty of time to wonder whether you can afford it.

Another benefit of formality is that it protects us from errors, sophisms, or outright abuses that would inevitably pollute a system in which matters of truth and justice were approached informally. Think only how easy it is, even with the best of intentions, to mix the truth and what we wish to be the truth, when we are burning with enthusiasm for a new idea. And now think what can happen when there is a deliberate intent to deceive. These are dangers against which formality offers good protection, providing an impersonal and impartial method for checking the correctness of arguments and procedures.

Early in the twentieth century mathematicians were fascinated by the idea that every true statement in mathematics could be derived logically, inescapably, from a very small set of assumed truths, known as axioms, through the application of strict rules of deduction.

These hopes turned out to be short-lived. In 1931 the logician Kurt Gödel announced the discovery of a dramatic theorem, according to which every formal system throws in the towel when confronted with a particular truth that cannot be proved within the system itself. The theorem is dramatic because it turns formality against herself: it uses formal analysis to expose the limitations of formal systems. In short, the theorem shows that there are things which we see to be true when we think "out of the box" (the box being the formal system), but not when we think "within the box", i.e. by sticking to the rules of the formal system. In other words, *more things are true than are*

*formally provable*. I emphasize this conclusion because truth in general (regardless of our limited ability to prove it by accepted means) is the proper object of theory. Formality, on the other hand, recognizes only *provable truth*. This difference implies that not all parts of a theory need to be provable in a formal sense: in fact, quite often they support each other and hold together by virtue of a global internal consistency that is somehow stronger than a proof.

Until now I have been talking about the bright side of formality, but now I must say something about its dark side. At its worst, formality is like a screen interposed between us and reality; it is a willingly embraced form of blindness.

I must immediately say that nothing could be further from my intention than to be disparaging blindness in general terms. In fact, there is a profound connection between blindness, abstract thought, poetry, and spiritual wisdom. Homer, the father of all poets, discovered his literary vocation only when he was no longer encumbered with a sense of vision. Democritus, the inventor of the atom, plucked out his eyes to think more clearly. And Chiu-Fang Kao, the most experienced of the imperial horse-trainers, could not tell whether a certain horse was a dun-coloured mare or a coal-black stallion: "intent on the inward qualities, he loses sight of the external... He looks at the things he ought to look at, and neglects those that need not be looked at."

What these great seers have in common is that their blindness is blindness to the trivial and the non-essential—a status one attains only after long study and careful observation, never before. Opposite to this, the blindness I am describing here comes *before* observation and before even knowing if there is anything worth observing. A classic example of blindness by choice is that of Queen Gandhari, wife of the blind-born King Dhritarashtra in the Hindu epic the Mahabharata, whose clouded judgement and partial rule ushered in *Kali Yuga*—the age of downfall of the human race. The Queen was not blind, and could perhaps have saved her husband and the kingdom from many disastrous blunders, had she not chosen to blindfold herself, through a misguided notion of virtue in sharing her husband's darkness.

The abuse of formality typically begins with the forcing of reality into the mould of preconceived schemes and fantastic ideas that have little in common with reality. The administration of justice is an area in which one often confronts the disastrous consequences of extreme formality. One of the memorable characters of Musil's *Man Without Qualities* is Moosbrugger—the dim-witted man who lives a peaceful life until the day on which, in a bout of insanity, he murders a woman. Is he guilty or innocent? At the trial, the psychiatrists are absolutely clear: Moosbrugger's syndrome does not exactly correspond to any hitherto observed syndrome: any further conclusion is entirely left to the jurors.

> The precision with which Moosbrugger's peculiar mentality was fitted into a two-thousand-year-old system of legal concepts resembled a madman's pedantic insistence on trying to spear a free-flying bird with a pin... The courtroom... offered an image of life itself, in that all those energetic up-to-the-minute characters... abandon questions of beauty, justice, love, and faith... to a subspecies of men given to intoning thousand-year-old phrases about the chalice and the sword of life.

The formal person, also known as a *philistine*, is one who chooses to honour the letter of the law rather than its spirit. The essence of the philistine's attitude is a little like the attitude that considers true only what is provable from a given set of assumptions. Genuine theory has little use for such an attitude.

Like rain and sun on a day in March, the formal and the abstract alternate in the story of Eklavya and Drona—the best student and the worst teacher of all times. The boy Eklavya wishes to learn archery, but Drona refuses to teach him because Eklavya was born into a caste whose members are not allowed to be warriors (the formal). Undaunted, Eklavya makes a clay idol of Drona (the abstract) and, training assiduously under its spell, manages to become the greatest archer in the world. When Drona discovers this, he becomes terribly angry, and, callously, demands gurudakshina—yes, payment for tuition! Eklavya, who has always considered himself Drona's pupil, is overjoyed and grateful to be so recognized as his student (the formal again). Then, at Drona's request, he readily agrees to cut off the thumb of his right hand—thus putting an end to his dreams of archery.

The story has more than one lesson to teach. Eklavya rises as long as he believes in the abstract Drona of his own imagination, and falls when he becomes a student of the real Drona. In the abstract he finds inspiration to break the constraints of formality and to pursue the highest ideals. Likewise, in the abstract we learn to recognize ourselves in other human beings—not only our immediate neighbours (which is relatively easy), but everybody regardless of social status, role, race, gender, nationality, citizenship . . . And not because we are blind to these attributes, but because we see them very clearly as aspects of their individual being. So we resent the injustice done to others as if it were done to us personally.

To the traditional image of justice as a blindfolded goddess, armed with sword and balance and ostentatiously unaware of her subjects, I should like to oppose the exquisite *Woman Holding a Balance* by the Dutch painter Vermeer. The woman holds the balance with just three fingers. Her gentle grip suits the delicate instrument, which is an assay balance—a fine scientific instrument for weighing very small quantities of precious metals. It is the "exquisite and just" balance that gives the title to one of the most famous scientific essays of all times: *The Assayer*, by Galileo Galilei. The thick wooden table is cluttered with valuable merchandise: pearls, necklaces, velvets—but none of this is on the balance. The plates of the balance are empty and the woman's serene gaze rests on that emptiness. On the back wall a painting within the painting depicts a terrifying scene of the Final Judgement. The woman's head hides the place where Saint Michael would be weighing souls in the balance. To me, this is a perfect metaphor of our efforts to reach, through careful study and observation, the innermost reality, which is and will remain invisible.

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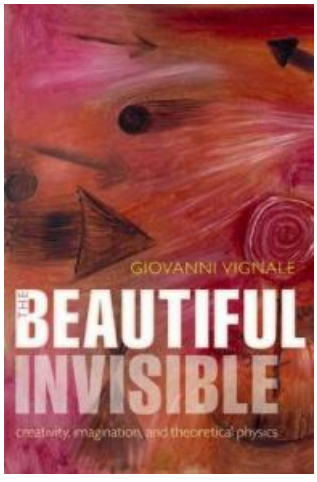



**Giovanni Vignale** is Professor of Physics at the University of Missouri-Columbia. His main field of study is theoretical condensed matter physics—the science of highly organized matter. *The Beautiful Invisible* is his second book.
http://web.missouri.edu/~vignaleg/index.htm

**About the artist**

**Cristian Boian** is an experimental digital artist from Romania who seeks to understand and develop connections between traditional and digital art. He also works as a carpenter and hopes to combine the knowledge acquired in this domain with visual art and technology. http://www.behance.net/boiancristian/frame


Brian Rolfe, "Before the Storm", 2010

# Our invented universe

## *A review of John Lukacs'* The Future of History

BY JOHN H. ARNOLD

ART BY BRIAN ROLFE

With a fair degree of regularity, historians late in their profession will declare that "history is in crisis". The laments which follow usually argue that historical practice has lost its compass bearing, having been foolishly distracted by some new interdisciplinary or conceptual fad; that fewer and fewer students are taking history courses at school or college; and (most often) that historians and the reading public have lost all meaningful contact. In the period since I started studying history (circa 1990), at least three such "crises" have been announced. This lament, if nothing else in history, does seem to repeat itself: in 1903 George Macaulay Trevelyan decried the fact that whilst "two generations back, history was part of our national literature" it was now "proclaimed a 'science' for specialists".

John Lukacs, author of some thirty books on modern history and, as he tells us in the "Apologia" with which he ends his book, 87 years old, now raises something of the same refrain. He is very much unhappy with the "fads" which distract academic historians

from their true calling. He notes that majors in history at American universities fell drastically between 1960 and 1980. (Neither Professor Lukacs nor myself are quite sure what the situation was in the thirty years after). But in other respects, *The Future of History* takes a very different line from the more familiar laments. Not that it is optimistic—Lukacs specifically notes that he is, by inclination, a pessimist. Rather, the book's take on the doing of history, on the problems faced by historians, and particularly the relationship between historians and the public, are viewed through a novel—one might even say idiosyncratic—lens.

One of Lukacs' main contentions is that the appetite for history in general society has grown in the latter half of the twentieth century, and is still increasing. There is a considerable audience for history, and there are various historians (Lukacs among them) who manage to write for both a popular and an academic readership; and although he bewails the abstruse nature of much academic history writing, he also argues that the walls between academic and popular history have grown much thinner. This is not simply about history as a leisure pursuit (although taking pleasure in history is important). The thirst for history in contemporary society, he argues, is driven by "the appetite for encountering some things and some people who were real", as a corrective to the celebrity-obsessed ephemera of modern culture.

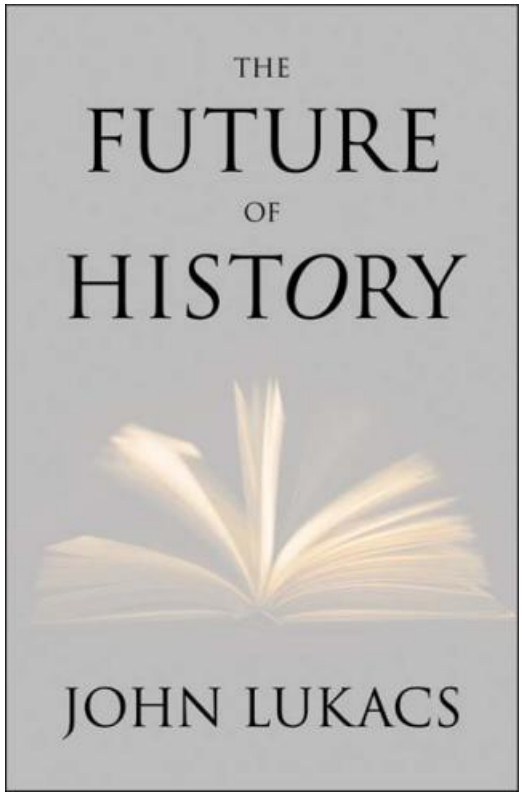
What matters to Lukacs in the study of history is here encapsulated: the communication of history as an essential part of civilization, and the sense of connection with past lives. Thinking historically—having an historical consciousness—was something which emerged, Lukacs believes, in the Enlightenment. For history to have a future is thus particularly important as part of sustaining that Enlightenment project in the face of various and multiple threats.

It is also essential to Lukacs that this history be *literature*, a space of writing and

**At points, despite his reactionary persona, Lukacs sounds strangely in chorus with the great re-inventors of the historical project**

invention and reflection, and not a science. It should ideally be literature which deals with the thoughts of intelligent, active people; an intellectual history and a history of intellectual thought, including literary intellectual thought. By and large things were going splendidly in the nineteenth century, as great historians wrote great history for a great public; but the introduction of "scientific method", the attempt to position history as a social science, is where the rot set in. A major outcome of treating history as a science was the abominable rise of "social history" (a very large category, which incorporates pretty much everything Lukacs dislikes, from economics to the cultural study of gender and sexuality).

There are several problems with social




*The Future of History*
John Lukacs
Yale University Press
April 2011
200 pages

Brian Rolfe, "Acacia", 2010

history, as he sees it. One is the issue beloved by right-wing reactionaries (as Lukacs sometimes labels himself): who are "the people" anyhow? what is "society"? In other words, a dislike that anyone should make claims on behalf of the multitude (without worrying too much about whether any among the multitude can otherwise be heard). Another issue is the available evidence. Notes the author: "One problem with social or gender or religious or sexual history is the paucity and the fragmentary nature of materials". Fragmentary, yes; some might say that this is precisely the challenge and pleasure of such history—of piecing together shards and fragments to catch a glimpse of the vital complexity of past lives. But "paucity"? Historical archives overflow with information regarding work, family, attitudes, experiences, cultural encounters. And a "paucity" of evidence for religious history? The reader boggles.

This is indeed an idiosyncratic approach. When reviewing a book, I tend to write an exclamation mark in the margin next to passages which surprise me. The margins for the opening chapters of my copy of *The Future of History*, if turned through 90°, would look like a frantic stream of morse code: exclamation mark following exclamation mark. Did a consciousness of history really not appear prior to the early modern period? The point is worth discussion, but is not at all well-made if one simply notes that the Oxford English Dictionary claims that the word "historian" only appeared in the early sixteenth century; one can find plenty of historians in earlier centuries, except that they will often be *ystoriens* (Old French), or *historiographi* (medieval Latin). Are social history, cultural history, and gender history only recent "fads"? Some ways of conceptualizing gender are fairly recent, but the more traditional approach of "women's history" has roots in late nineteenth-century German scholarship, and the history of "high" culture at least stretches back much earlier as well. As much as Lukacs clearly loves history (and his commitment and passion certainly spring out from the page), his knowledge of it is surprisingly partial.

Throughout, there is a strong sense of being led grumpily from topic to topic by an irascible old man; one rather expects the author to bark "well! what have you got to say to that, eh?" as he pronounces on the general diminution of the modern attention span, the unwillingness of academics to hire "independent minds who might rock the boat", the belief that all social history (remember the capaciousness of this category) is "economic—that is, materialist history", and by consequence that social

historians are essentially "determinist" in their accounts. There is a very amusing, and somewhat endearing, passage on the baffling effects of computers on people's lives, and on the practice of history in particular. This culminates in a vignette wherein Lukacs takes his confounded machine back to the shop, to ask for advice on how to actually write things on it, and is told that he may be one of the very few who needs assistance in using his machine for writing; from which the author deduces the general decline of the written word in Western society.

And yet, despite my rather general lack of sympathy for Lukacs' position on most matters, there are passages here which catch at me more positively; and at points, despite his commitment to a cussed and reactionary persona, Lukacs sounds strangely—unwittingly, one suspects—in chorus with the great post-structuralist re-inventors of the historical project. Although fidelity to the evidence is of very great importance to Lukacs (and indeed he is one of those valiant band who have consistently challenged the ultra-right-wing historian David Irving), so too is the fictionality of history: the understanding that the history which we tell is literary in nature, engaged in dialogue with past and future accounts, an act of communication and not a simple presentation of "the facts". History is a prose discourse, as much invented as found, one might say. (In fact Hayden White said just that, in one of the first postmodern challenges to traditional historiography). One of Lukacs' earlier books, *A Thread of Years*, was built around narrated vignettes of imaginary characters placed within real historical settings; and despite the wholly, romantically conservative message of the book (that "real American values", held by real American "gentlemen", died out in the 1960s), the method and structure were radical—postmodern, one is tempted to say, if only to hear the predictably cranky response from the author.

But attractive too is Lukacs' conception of the writing of history, the passage of time, and the meaning of it all:

> The knower and the known are not identical: but they are inseparable. That is, too, how we, on this earth, are at the center of the universe. We did not create the universe; but we invented it, and keep inventing it, time after time.

Those are words which I can happily embrace. I suspect that I might take some different implications from the passage than those intended—and I wonder if my sense of "we" is possibly more capacious than the author's, who tends to focus on the now-departed gentlemanly elite of his imagination. But there is a point of contact here nonetheless. Making contact—making history matter, and making history through acts of shared communication—is essential to the future of history. On that, the author and I would, I think, find agreement.

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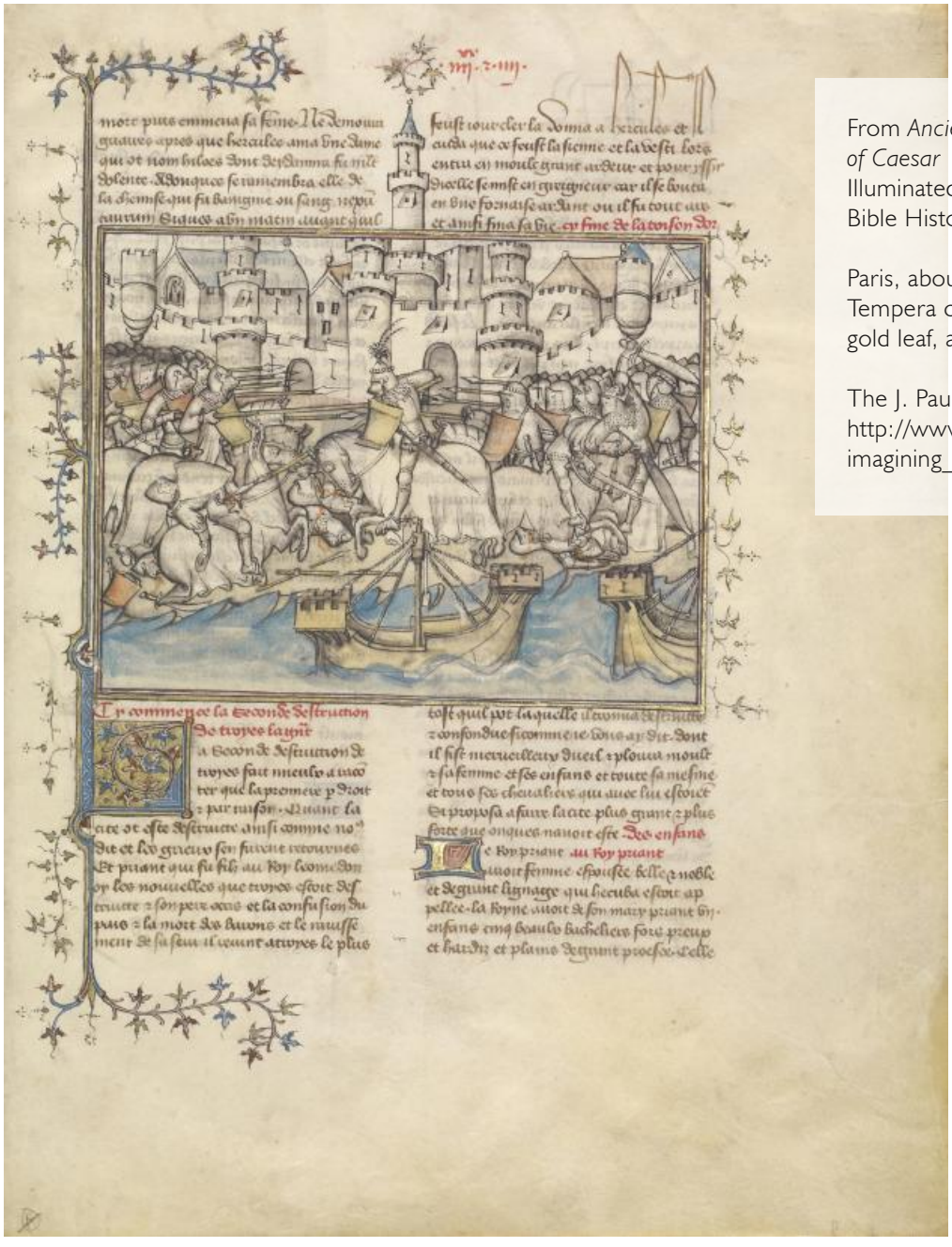
## About the artist

**Brian Rolfe** started his career as a forensic artist in the South African Police Service. He ran his own commercial art studio for many years, and since 2003 has been exhibiting his original paintings both at home and internationally.
https://www.facebook.com/profile.php?id=527872723&sk=photos



From *Ancient History up to the Reign of Caesar*
Illuminated by the First Master of Bible Historiale of Jean de Berry

Paris, about 1390 - 1400
Tempera colors, colored washes, gold leaf, and ink on parchment

The J. Paul Getty Museum
http://www.getty.edu/art/exhibitions/imagining_past_france/

**A page depicting a battle from the Trojan War,** from *Ancient History until the Reign of Caesar (Histoire ancienne jusqu'à César)*, an unfinished illuminated history produced in Paris in the late fourteenth century. Beginning with the creation of the world, the book emphasized to lay readers the moral lessons of important historical events. While it is uncertain to what degree the French actually believed that they were the descendents of the Trojans, this piece echoes a common trope found throughout medieval French culture which evokes the Trojan War as part of a mythic tradition (including historical figures like Charlemagne) after which French leaders hoped to model themselves. Illuminations like these thus served a political purpose, connecting their medieval readers with stories of the ancient past; note the scene's inclusion of medieval architecture, weaponry, and ships, and the use of French rather than Latin in the surrounding text. The past, of course, continues to be used to support political ends, as demonstrated by French president Nicolas Sarkozy's justification of his country's intervention in Libya as a duty to "assume its role, its role before history."

– Abby Plener

# Welcome to the end of the second issue.

*(We're glad you're making this a habit.)*

Our Summer issue is just around the corner, but there's still time for us to throw all of our work out and start again based on your feedback.

*editor@scope-mag.com*

Go on. You know you want to.

"Whatever else new media does, each innovation in communications turns us, if only briefly, into historians of technology, conscious of and curious about the media we use. Blog posts about blogging, tweets about Twitter, books about the obsolescence of books: every new form of communication produces a similar moment, if only a moment, of critical self-reflection."*

* *Page 14, inside*