Routledge
Taylor & Francis Group

Climate change, environmental violence and genocide

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Anthropogenic climate change is the most fundamental challenge for humankind in the twenty-first century. Rising sea levels and the loss of agricultural land, severe weather changes and desertification are just some of the likely consequences that will drastically alter the living conditions of millions of people, mainly in the global south. Environmental violence, including resource crises such as peak fossil fuel, should be of major concern to genocide studies. This article argues that environmental violence is amongst the main driving forces of collective violence and that climate change will dramatically increase the likelihood of genocide occurring in areas at risk. On this basis, the article criticises genocide prevention orthodoxy for its focus on humanitarian military intervention and asks for a new concept of sustainable prevention on the basis of global social justice.

Keywords: climate change; environmental violence; genocide; resources; sustainable prevention; global social injustice

Each of the last three decades has been successively warmer at the Earth's surface than any preceding decade since 1850. In the northern hemisphere, 1983–2012 was likely the warmest 30-year period of the last 1400 years.[1]

Climate change

'Climate change' has had an astonishing career over the last three decades. Almost unknown in the 1980s – although the phenomena is much older – climate change had become somewhat of a hegemonic discourse at the end of the first decade of the new millennium. This 'career' is reflected in the history of the Intergovernmental Panel on Climate Change (IPCC), founded in 1988. It symbolises both the global nature of climate change and the necessity of addressing climate change in transnational cooperation. The IPCC's highest prominence, was marked by the year 2007, when it, along with former US Vice-President Al Gore, was awarded the Noble Peace Prize. As this article is being written, the IPCC has started presenting its Fifth Assessment Report, beginning as usual with the findings of Working Group 1 on the physical science basis of climate change; reports from Working Group 2 on 'Impacts, Adaptation and Vulnerability', Working Group 3 on 'Mitigation of Climate Change', and finally a 'Synthesis Report', will follow later in 2014.[2]

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Despite all scientific evidence on climate change and its causes and consequences, it has become a matter of heated scientific and public debate. A series of 'scandals', such as 'climate gate', in which confidential emails of climatologists of the University of East Anglia were leaked, have been used to undermine the credibility of the scientific assessment, as has seemingly contradictory evidence, such as the apparent pause in the increase of temperature during the last 15 years, acknowledged now by the IPCC.[3] According to most scientists,[4] none of this fundamentally challenges the reality of climate change:

> Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased[5]

Despite the overwhelmingly affirmative scientific evidence, these findings are met by fierce ideological opposition from certain politicians, lobbyists and journalists. The debate shows all the signs of the ideological rifts of past conflicts, with extreme representatives of both sides accusing each other of being denialists or alarmists. In a complete reversal of the actual position, those people arguing with scientific models and predictions are labelled as 'ideological', whereas the so-called climate sceptics, amongst whom are only a few serious scientists, claim objective truth for their position. They abuse, for example, qualified statements made by the IPCC, which tries to assess the likelihood of any given future event in percentages, as a lack of scientific evidence, whereas it could be seen with much more justification as proof of the scientific character of the entire endeavour. Often climate change critics claim to possess the absolute truth, an illusion which in itself is highly questionable and certainly unscientific.

Nevertheless, the close nexus between science and politics and the procedure where not only scientists but also diplomatic and other representatives of various governments negotiate at least the summary of the Assessment Reports has also drawn serious criticism from scientists involved in the work of the IPCC.[6]

One reason for this intense debate seems to be that the public – both supporters and critics of the IPCC – tend to concentrate on the apocalyptic dimension of climate change. And indeed, if some of the more extreme predictions come true, the world would become uninhabitable for humankind within a relatively short period of time. *The Guardian*, one of the most popular UK newspapers, terms this doomsday terminology 'Climate Calamity'.[7] However, it seems that this focus on the most extreme predictions, on the potentially apocalyptic consequences of unmitigated climate change, might in the end be to the detriment of the cause; in the light of the fierce battle regarding the apocalyptic dimension of passing tipping points and the danger of a runaway climate, the simple truth that climate change is already taking place and is already affecting the lives of millions of people seems to have been lost. It might be the tragedy of climate change research that the potentially truly apocalyptic character of climate change in the future obscures the view of the ground-level suffering occurring today. The fact that this suffering predominantly takes place – at least at this moment – in the global south might be a further explanation for this deficiency.

Nevertheless, in many ways the fierceness of this debate is testament to the 'success' of climate change as a concept, as it increasingly influences disciplines outside the narrow confines of climate sciences. In particular, human responses to climate change, both in preventing a further acceleration and in mitigating its effects, are studied in a variety of disciplines from economics[8] and political science[9] to anthropology,[10] from agriculture to

engineering. Some scholars have even proclaimed the ascent of a new field of research: climate and culture, particularly focusing on the cultural and political consequences of climate change.[11] Since violence plays a role amongst the possible effects of climate change, conflict and peace research and security studies are also engaged with climate change research.[12] What is strangely amiss, despite the fact that many see in climate change the scourge of the twentieth century, and one would assume also of the twenty-first century, is the integration of genocide studies in the climate change debate. This article sketches some of the historical reasons for this lack and argues for the inclusion of climate change in genocide studies and vice versa. It does so with the aim of opening up genocide prevention to the challenges of environmental violence.

Climate change and environmental violence: a note on terminology

It appears that climate change in common usage has acquired a surplus of meaning that goes beyond the actual physical phenomenon or the set of physical phenomena originally sub-sumed under the term. Climate change has become a chiffre for man-made environmental change and its potentially catastrophic effects. Climate change in this broader sense, however, cannot be separated from the carbon economy and population growth, that is, the finiteness of resources. Both are not only amongst the main causes of climate change, but are themselves threat drivers as the unsatisfied need for resources and the increase in demand will, in all likelihood – as any resource scarcity – cause an increase in violence, conflict and war. To give just one example: fossil fuel is both a driving force of climate change and will, after its peak,[13] amplify environmental and other crises, as the lack of energy supply will need to be compensated for and a reduction in energy supply will most likely increase the likelihood of resource conflicts. At the same time, energy scarcity will limit the resources available to mitigate the consequences of climate change. This challenge will not change even if we factor in new 'extreme energy' tech-niques of oil and gas production that are expanding current fossil fuel reserves[14] as on the one hand the process of 'extreme energy' is itself unsustainable, while the greater extraction effort and risk involved also bring environmental problems of their own.[15]

Resource scarcity in general, however, is intensified by population growth as population growth results generally in an increase in consumption unless the unequal distribution of food, water, energy, etc. worsens. By the 1970s, the finite nature of resources had been identified and brought to the attention of a wider public. In their famous 1972 study, *The Limits to Growth*, Donella H. Meadows, Dennis L. Meadows, Jørgen Randers and William W. Behrens had modelled economic and population growth and come to the con-clusion that the current lifestyle based on growing consumption was unsustainable.[16] Forty years later, the situation has worsened, exacerbated by – amongst other things – climate change. For the analysis of the societal impact and the prediction of future violence, climate change cannot be separated from general environmental change.[17]

Scientists have reacted to this challenge by introducing the concept of 'Anthropo-cene',[18] which as a geological epoch followed the 'Holocene' (a term that is used to describe the last 11,000 years), and began some 250 years ago with the advent of the carbon-based industrial revolution.[19] The concept of 'Anthropocene' acknowledges the interconnectedness of various human activities to an extent that, for the first time, human-kind is seen as a primary mover of global physical phenomena. Rockström et al. have made use of this concept by attempting to identify and quantify thresholds by which various environmental changes became or will become irreversible and catastrophic. They have

marked a set of nine 'planetary boundaries', the crossing of which would endanger the continental or global ecosystem:

(1) climate change;
(2) ocean acidification;
(3) stratospheric ozone depletion;
(4) interference with the global phosphorus and nitrogen cycles;
(5) rate of biodiversity loss;
(6) global freshwater use;
(7) land-system change;
(8) aerosol loading;
(9) chemical pollution.

Climate change took a prominent position:

> Anthropogenic pressures on the earth system have reached a scale where abrupt global environmental change can no longer be excluded. We propose a new approach to global sustainability in which we define planetary boundaries within which we expect that humanity can operate safely. Transgressing one or more planetary boundaries may be deleterious or even catastrophic due to the risk of crossing thresholds that will trigger non-linear, abrupt environmental change within continental- to planetary-scale systems.[20]

The idea to group together a multitude of factors, all of which have serious effects on the earth as a human habitat and tend to intensify each other, benefits also the research on the impact climate change has on human society. It draws attention to the fact that a multitude of factors, such as peak fossil fuels or population growth, all possess an environmental dimension. This being the case, the generic term 'environmental violence' seems useful. Violence in this understanding, however, is not only physical violence, let alone collective physical violence, but is also structural violence.[21] However, for the purpose of this article, I will concentrate on collective physical violence.

Amongst all forms of collective violence, none tends to attract greater public interest and to provoke greater moral outcry than genocide, the destruction of entire groups of people. The Herero and Nama in German south-west Africa (1904–1908), the Armenians, Assyrians and Pontic Greek in the Ottoman Empire (1915–1918), the Holocaust (1941–1945) or the genocide in Rwanda (1994) are the best known examples of genocide in the twentieth century. Even the relatively young twenty-first century has seen its share of genocidal violence in Darfur, the Democratic Republic of Congo and Kenya, to name just a few regions where elites have been accused of committing genocide.

Grass-roots movements engage worldwide in condemning genocide and work towards its prevention, mobilising thousands of people against it. They monitor hotspots around the world for signs of impending genocidal violence, try to establish early warning systems, and argue for the building up of international intervention capabilities. Although often reluctant to follow suit with real action, politicians regularly pledge their commitment to combating genocide and to the 'Never Again' pledge promised after the Holocaust. In 2011, the US even introduced their Atrocities Prevention Board, justifying it with national interests and moral obligation:

> Preventing mass atrocities and genocide is a core national security interest and a core moral responsibility of the United States.

Our security is affected when masses of civilians are slaughtered, refugees flow across borders, and murderers wreak havoc on regional stability and livelihoods. America's reputation suffers, and our ability to bring about change is constrained, when we are perceived as idle in the face of mass atrocities and genocide. Unfortunately, history has taught us that our pursuit of a world where states do not systematically slaughter civilians will not come to fruition without concerted and coordinated effort.[22]

Neither climate change nor environmental violence feature prominently in these initiatives. The same is true for academic research on genocide, a burgeoning field with annual international conferences and several journals.

But how can scholars, activists and their organisations, which devote so much time and energy to the prediction of the future, ignore some of the biggest challenges for humankind? Why is it so difficult for the scholars of genocide to follow their colleagues in other disciplines in dealing with violence such as peace and conflict or security studies, where climate change has gained some prominence?[23]

In order to answer this question, a short summary of genocide both as a concept and as a field for academic research is necessary.

Genocide: intentionality, ideology and the international system

Historically, the concept of genocide is intrinsically linked to the Holocaust, to which in many ways it owes its very existence. Raphael Lemkin, a Polish-Jewish lawyer, who had to flee his native Poland after the German invasion coined the term in his seminal study on the German occupation policy in Eastern Europe *Axis Rule in Occupied Europe*. Here he defined genocide as

> a coordinated plan of different actions aiming at the destruction of essential foundations of the life of national groups, with the aim of annihilating the groups themselves. The objectives of such a plan would be disintegration of the political and social institutions, of culture, language, national feelings, religion, and the economic existence of national groups, and the destruction of the personal security, liberty, health, dignity, and even the lives of the individuals belonging to such groups. Genocide is directed against the national group as an entity, and the actions involved are directed against individuals, not in their individual capacity, but as members of the national group.[24]

After tireless campaigning by Lemkin and others the newly founded United Nations (UN) adopted the concept and made genocide a crime under international law. In their 1948 'Convention on the Prevention and Punishment of the Crime of Genocide' genocide was defined as 'any of the following acts committed with intent to destroy, in whole or in part, a national, ethnic, racial or religious group, as such:

(a) Killing members of the group;
(b) Causing serious bodily or mental harm to members of the group;
(c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;
(d) Imposing measures intended to prevent births within the group;
(e) Forcibly transferring children of the group to another group.[25]

The two central elements in this definition are the *intention* to destroy a specific, clearly defined *group* of people. Through political manoeuvring, political and social groups were excluded from the convention since the colonial powers of Great Britain and France were

opposed to forcing the then-Soviet Union to recognise the latter. The murder of millions of Kulaks was not to be called genocide, nor should atrocities against postcolonial liberation groups be considered genocidal. The definition of groups has therefore from the beginning been a matter of controversy, particularly since neither 'national' nor 'ethnic' groups are clearly defined categories and 'race' is a highly contested term. There even seems to be an emerging consensus – at least amongst scholars – that there are no objective criteria for one's membership in a group, but that the victim group is rather arbitrarily defined by the perpetrators. It is part of the horror of genocide that as a victim one is categorised regardless of one's own perceptions or actions. The victims of genocide do not, thus, provoke the aggression meted out against them, neither can they choose not to belong to the victim group.

Closely linked to the question of the 'target' of genocide is that of intention, what Lemkin called a 'coordinated plan of different actions'. The UN convention was meant to be an instrument of international justice, even if it could not fulfil this task during the Cold War, and has left the international legal community wanting even in more recent times. Understanding genocide in a predominantly legal way with the focus on prosecution has led to a narrowing of the definition of 'intent'. Using the analogy of a murder case, where the prosecutor has to prove the *intention* to murder, the intention to commit genocide became the centre of attention. For example, did Milosevic order and intend the complete destruction of the Bosnian Muslims? Or did he 'just' aim at the ethnic cleansing of certain groups of people, in which some or many of them died as 'collateral damage'? What at a single murder trial would mean the difference between murder and manslaughter makes the identification of genocide extremely difficult. Even if prosecutors can prove that individual killings were intended, they still need to show that the entire group is the target. In 2005, for example, the report of the International Commission of Inquiry on Darfur concluded that whilst crimes against humanity and war crimes were committed in Darfur, which were perhaps no less heinous than genocide, still genocide could not be proven, because 'the crucial element of genocidal intent appears to be missing, at least as far as the central Government authorities are concerned'. What it meant by 'genocidal intent' can be extrapolated from the following excerpt:

> Generally speaking the policy of attacking, killing and forcibly displacing members of some tribes does not evince a specific intent to annihilate, in whole or in part, a group distinguished on racial, ethnic, national or religious grounds. Rather, it would seem that those who planned and organized attacks on villages pursued the intent to drive the victims from their homes, primarily for purposes of counter-insurgency warfare.[26]

This intention then had to be proven in court, and the best – and often the only proof – were written documents and orders. But they are difficult to come by, because genocidaires rarely put their murderous intentions down on paper, at least not in the form of precise orders. See, for example, the decade-long search for Hitler's order to exterminate the Jews of Europe. Historians have still not found the one single instruction that started the mass murder; however, there is no doubt about Hitler's responsibility for the Holocaust. Of course, in this case as in others, genocidal intention can be and is inferred from speeches and writings as well as from actions. Particularly, genocidal propaganda, which exists as a foundational factor in basically all genocides in a process of dehumanising 'the other' in order to ease their destruction, began to be seen as a much needed proof of intent.

This perspective was supported by the public perception of the Holocaust, which stood not only as the basis of the Genocide Convention but has in the meantime become a global

chiffre for evil and for what harm humans can do to other humans.[27] Despite major advances in the historical sciences and Holocaust studies that draw a much more complex picture, there still seems to be a prevalent image of the Holocaust in which the Nazis from early on aimed at the physical murder of the Jews, only claimed power, and started World War II to solve the 'Jewish question', i.e. to murder the Jews of Europe (and possibly beyond). The public narrowing of the focus on Hitler and German anti-Semitism has deeply entrenched our perception of genocide as a crime primarily, if not exclusively, based on ideology. It appears as a deeply irrational act juxtaposed against seemingly rational forms of violence, such as violence in self-defence and warfare. This perception is enshrined in the focus on the ideological elite, i.e. the Nazis with their occult rituals and their Aryan (= racial) fantasies, contrasted against the bureaucratic and military elite often portrayed as un-ideological and un-political. Furthermore, the fact that the Holocaust was carried out by one of the most efficient bureaucratic regimes in history emphasises a perspective that state elites and the state apparatus commit genocide. For many, the ideological elite (Nazis) hijacked an entire state (Germany) mainly to carry out its crime based on a racial dystopia.[28]

This model of genocide has serious consequences for understanding genocide and also the means by which to prevent it. Combined with an often far too simplistic understanding of ideology, it leads to a narrowing of prevention to a limited number of trigger points, which allegedly serve as detectors for an early warning system.[29] The concentration on ideological causes seems to have led to ignoring systemic causes. As a consequence, prevention is reduced to intervention.[30] To discuss only one, albeit quite prominent, example: Gregory Stanton has developed the highly influential concept of the 'Eight Stages of Genocide', aimed at identifying genocides before they happen in order to prevent them and serving as basis for other attempts to establish early warning systems. Genocide, according to Stanton,

> is a process that develops in eight stages that are predictable but not inexorable. At each stage, preventive measures can stop it. The process is not linear. Logically, later stages must be preceded by earlier stages. But all stages continue to operate throughout the process.[31]

Stanton then identifies in his concept, which he first developed as a briefing paper for the US State Department, the following stages:

- Classification
- Symbolisation
- Dehumanisation
- Organisation
- Polarisation
- Preparation
- Extermination
- Denial

If they are to be detected in regimes, then genocide has to be seen as possible and immanent. To prevent genocide is to stop classification, to stop hate propaganda and, in stage seven, ultimately to intervene in order to stop the ongoing extermination.[32] Leaving aside the problem of military intervention, which cannot be discussed here for reasons of space,[33] the problem with this approach lies in the fact that it describes a crime seemingly without a cause. Stanton explains the classification, from which all other stages derive, as follows:

> All cultures have categories to distinguish people into 'us and them' by ethnicity, race, religion, or nationality: German and Jew, Hutu and Tutsi. Bipolar societies that lack mixed categories, such as Rwanda and Burundi, are the most likely to have genocide.[34]

This is problematic in several ways. First, the statement that some societies 'lack mixed categories' seems to accept categories as being real, whereas they are constructed. Second, it can be argued that racism is particularly violent in societies where the boundary between the 'races' is blurred or under threat, where 'mixed groups' do exist.[35] In other words, ideology creates a difference, where the sociological reality tells a different story. See, for example, the obsession of the Nazis to define who was a Jew and who was not. The ideological rigor was partly due to the fact that Jews where widely integrated in German society and not easily detectable. However, the most serious problem in Stanton's theory is that he describes a situation but fails to address the most important question: why and under which conditions do the binary constructions of society lead to genocide? Binary constructions seem to be necessary, but not sufficient. If all cultures have an 'us and them' dichotomy, then it explains nothing about why in some cultures genocides are committed and in others they are not. In other words, what are completely missing are the causes for genocide, only the tools are described for carrying it out.

But also, why people would start classifying each other or certain groups, marking each other out and dehumanising each other, is not even elaborated in Stanton's theory. The concept, valuable as it may be for identifying an impending or ongoing genocide, does not aid our understanding of the causes for genocide. Why genocides take place is not explained; the space for the causes is left blank. This blank however is in the common perception filled with references either to traditional 'ethnic' stereotypes such as African atavistic violence or with recourse to ideology or irrational beliefs. In many ways it is an ahistorical approach to genocide and its prevention and it ignores the deeper roots of genocide. Models like this remain on the surface and construct genocide as a mainly ideologically motivated regime of criminals and psychopaths, who, driven by an irrational hatred, have hijacked a state and abuse this powerbase to carry out their irrational murderous ideology.

Furthermore genocidal regimes are seen not only as criminal and irrational, but they are also characterised as aberrations from the proper functioning of modern regimes, as signs of rogue or failed states in an otherwise well-functioning and rational international political system. This image of genocide as a consequence of the dysfunction of the state, which is seen as the prime agent of the international system, resonates also with the much heralded UN initiative of a 'Responsibility to Protect' (R2P):

> 138. Each individual State has the responsibility to protect its populations from genocide, war crimes, ethnic cleansing and crimes against humanity. This responsibility entails the prevention of such crimes, including their incitement, through appropriate and necessary means.[36]

This perspective on the international system has consequences. If states and their governments do not fulfil this task of protecting their population, then the international community is legitimised and even requested to interfere, even to intervene.[37]

However labelling genocidal regimes as 'rogue' or 'failed' states creates a 'dark other' to the Western/northern state, allowing the international community to respond to their 'misbehaving' in the modus of police action,[38] that is with short, precise, violent action, and, at the same time, stabilises the international system. Singling out the 'rogue' regimes attests to the innocence of the rest. Emphasising the irrational nature of genocidal

violence affirms the rationality of all other actors in the global system. Under the guise of humanitarianism, we find logic at work, with a clear perpetrator and victim dichotomy and identifying clear culprits who need to be brought to justice. Consequently, the suggested course of action is that of stopping the symptoms instead of addressing the causes. There is no space – and within this logic of prevention no need – for analysing and changing the systemic, transnational and global roots of genocide.

Genocide, environmental violence and rational choice

During the last decade, however, research into global historical cases of genocide has started to produce a different picture of genocide. Ideology has been decentred, intention redefined and our understanding of genocide widened in this process.[39] Genocide can, therefore, be seen as a crime aimed at a social collective defined by the perpetrator. It is still intrinsically linked to the problem of identity, since both the victim and the perpetrator group are constructed in a reciprocal process of othering in which hybridity, ambiguity and multiple identities are substituted by unambiguousness identities: contact and communication by separation, and communication by expulsion or murder.

Expulsion is here included as a form of genocide since it most often leads to the destruction – physical or cultural – of the expelled group, and can thus be seen as genocidal. So far, research has focused little, if at all, on the ways these identities were constructed (racial theory, etc.), the reasons why societies resort to creating absolute dichotomies that in turn serve as precursors to violence, or why traditional dichotomies are suddenly framed in a way that resorting to violence seems likely, desirable, or even inevitable. This is where environmental violence and globalisation comes into play.

Historically the competition for territory is a primary cause of violence. Space is a finite quantity for which people (by definition indefinite in their numbers) compete. The need for land can be real or imagined (it can include imaginative landscapes, for example, plans for settlements, economic or agricultural use, or fear of land shortage). Early globalisation in the form of European colonialism affected this in three ways: The movement of people (settlement), the inclusion of distant regions in the emerging world economy (agriculture, mining, hunting, trading with certain impacts on people living there) and an increase in communication over vast distances (exchange of personnel, representations, learning experiences).

Globalisation and its impact on the history of genocide has only fairly recently started to attract scholarly attention. The best analysis so far can be found within the research into genocides in the colonial context.[40] As I have argued elsewhere, colonialism, in particular settler colonialism, can be seen as the control of space (land) on the basis of race.[41] It is – if nothing else – land grabbing by the colonisers on a truly global scale. Genocidal violence accompanied the colonial settlement process, particularly in settler colonies. Although land was not really scarce, since many regions particularly in North America and Australia were not overly densely populated, there was no 'terra nullius', no empty land, either.

Soon, competition for land began between indigenous populations and newcomers. This competition was fuelled by a change in land use patterns introduced by the settlers to start producing for the colonial and emerging global market. The large-scale introduction of sheep grazing is a good example.[42] To turn sheep farming into a global export, large areas populated by indigenous peoples needed to be cleared. This most often occurred through local initiatives and militias, sometimes even opposed by the central colonial government.[43] Ideology in the form of racism and ideas of European and Christian superiority supported this by allowing the newcomers to place the local population outside the sphere of moral responsibility; an indispensable precondition of genocide. Victims need to be excluded

from the group of those whom 'we are required to protect and to take seriously, and opposite which we have responsibilities', Helen Fein clarifies.[44] In the colonial context, this means that moral obligation only covered the European colonisers; moral constraints in behaviour were only valid within this group.

However, ideology was not the prime mover, but was instead merely an enabling factor. The cause can rather be seen in the economic decision to produce for a larger colonial or even global market. Economic interests were at the forefront when it came to expelling and destroying entire peoples. These economic decisions are commonly described as 'rational'; in this case, an economic decision was a rational decision for genocide. Genocide in this sense is violent communication between two groups of people in competition for space and, in general, for more resources.

In the colonial context, the resource in question was mainly land. Interestingly, land was also foundational for Raphael Lemkin's understanding of genocide based on his analysis of the Nazi occupation policy:

> Genocide has two phases: one, destruction of the national pattern of the oppressed group; the other, the imposition of the national pattern of the oppressor. This imposition, in turn, may be made upon the oppressed population which is allowed to remain or upon the territory alone, after removal of the population and the colonization by the oppressor's own nationals.[45]

Lemkin's concept not only offers categories to link distinct instances of genocide in world history – in what I have called in a different context 'an archaeology of genocide'[46] – but also argues for the inclusion of cultural destruction as a form of genocide. That genocide is not necessarily or not primarily about mass killing, but about group destruction is a point often overlooked. This destruction can also be seen in the destruction of the cultural foundation of group identities and can also be brought about by a change in land use patterns, i.e. the competition for resources.[47]

Genocide as a resource-led form of violence is not limited to classical colonial situations, as new readings of the German genocides during World War II prove. In the last two decades, a number of studies have simultaneously widened and deepened our understanding of Nazi genocidal violence, the underlying motifs and its victims.[48] By putting the Holocaust and other crimes into the context of the actual political and military situation and assessing developments on the ground, scholars have deconstructed the simplistic notion of central planning and clear-cut, top-down responsibility for the genocides based on a simplistic ideology of racial hatred, important as the latter, particularly in the case of the Jews, certainly has been. By including local developments on and behind the Eastern front this has directed attention to more general ideas of Germany's Eastern Empire.[49] *Lebensraum* ('living space') in the East was seen as the necessary answer to a perceived shortage of space due to overpopulation, a fear quite prominent in European thinking of the nineteenth and twentieth centuries. Although the Malthusian prediction of overpopulation did not materialise, thinking along those lines did influence German policy; the fear of resource scarcity (at the heart of Malthus' prediction) and the social Darwinian understanding of nations as being bio-political entities caught in a permanent struggle against each other and in which only the 'survival of the fittest' seemed possible led to the dangerous conclusion that this bio-political body needed to be strengthened by cleansing the 'body' from so-called 'parasites' (in the Nazi ideology: Jews, Romani people, homosexuals, the handicapped, etc.), bringing all 'true ethnic' Germans back into the nation and by making space available for the 'healthy' members and their (numerous) offspring. What many see as a monolithic Nazi genocide was, in reality, quite a complex interplay of cleansing (and eventually killing) the unwanted and

concentrating and resettling the wanted. Many of the decisions to murder the Jews in certain areas were made locally in order to solve a regional 'problem' of overpopulation due to the influx of German settlers. It seemed to them to be a rational solution to a real problem. Of course the 'problem' was self-created by the German administration that developed resettlement plans on the basis of an imagined shortage of land. Land also played a key role for Nazi planning regarding the fate of the Slavs. In order to clear the Western parts of the Soviet Union, the SS developed concepts to move and murder as many as 80 million Slavs. According to the so-called *Generalplan Ost* (General Ordinance East) most of the population of the Soviet Union west of the Ural Mountains were to be expelled to Siberia. Knowing full well that this eastern province would never be able to feed so many people, their starvation and eventual death was willingly accepted by German planners. Again, gaining land for German settlement was the main objective. Due to the changing fortunes of war, the plan could never be put fully into practice. However, given the importance of German settlement fantasies and the population movements already initiated, local decisions to solve local supply 'problems' by mass murder could appear rational, albeit deeply inhuman.

It goes against the grain of human self-conception to call the decision for mass murder a rational decision and therefore public images of mass violence often resort to irrationality as an explanation.[50] However, the complex relationship between rationality and irrationality is not entirely new. Already Theodor Adorno and Max Horkheimer have emphasised the 'Dialectics of Enlightenment'[51] and Zygmunt Baumann[52] has shaped the image of the modern state as the gardening state, i.e. the gardener who decides on a rational basis which plants are allowed to grow and which need to be weeded out. Nazi policies also demonstrate that rational decisions can be based on irrational ideas, world-views and fears.

In general, the relationship between the rational and the ideological in genocide is quite complex. Any perceived threat of resource scarcity, etc., might lead to the fear that there is not enough water, food, grain, oil, land, and so on, and, therefore, some people will have to be excluded from its use. This population, perceived as 'superfluous', would have to disappear, leave the region, or be killed. It is this interplay between ideology and rational choice, between crises (real or imagined) and the decision for mass destruction that opens up genocide studies to discussions on environmental violence. If we assume that environmental violence will lead to systemic stress and to multiple crises, then we are to expect an increase in genocidal violence.

Exclusions, however, do not happen indiscriminately. Here, ideology, traditions of inclusion and exclusion, and histories of violence come into play. If certain people or groups of people are targeted, traditional antagonisms and dichotomies, the binary opposites in many societies between several groups (according to cultural, religious or regional differences), are exploited. Once the logic has been accepted that there are not enough resources for everybody, targeting one's traditional enemies might seem to make sense.

Nonetheless, if we accept that resource scarcity can create genocidal violence then we should alter our understanding of the role of ideology, of intention, and ultimately of prevention. Ideology will still be important; however, it might not be the initial cause of violence in each and every case. Rather, resource scarcity – real or perceived – could serve as a cause as well as part of an ideology, whereby ideology becomes the means by which allegedly superfluous human beings are identified.

Genocide, environmental change and sustainable prevention

Obviously, theories of genocide prevention based on an understanding of genocide as a purely ideological crime and resting on theoretical models with various stages to identify

potential genocidal hotspots are inadequate.[53] And so ideas of prevention are still following a control paradigm – seeing instances of genocide as limited, distinct events that can be controlled by international 'police action'. Military intervention in particular does not seem an appropriate tool to achieve sustainable prevention. If genocidal crises erupt in greater numbers – which might be an effect of the stress caused by environmental change on individual societies as well as the global system in its entirety – the international community will simply not be able to cope through sanctions and military interventions. Furthermore, there is a limit to the scale, intensity and duration of military force that can be deployed before the intended consequences (stopping violence) are outweighed by adverse effects, such as becoming partisan in the conflict, fuelling anti-Western sentiments, inflicting casualties on innocents, and suffering casualties, which makes support at home for the mission crumble. And third, containing the conflicts in the regions of their outbreak might prove increasingly difficult. Violence tends to spread to neighbouring countries, be it as the result of strategies of escalation or in the form of refugees. With presumably ever larger regions being affected, more and more people will try to reach the lesser affected regions, many of them in the global north. Refugee streams on a large scale cannot be stopped forever by the richer nations of the global north without undermining the moral foundations of their actions, if preventing refugees from reaching the wealthy states of 'the West' is, indeed, morally justifiable at all. Therefore, sustainable prevention cannot be achieved under the control paradigm; a radical rethink is necessary.

What is required is sustainable prevention based on a 'global social justice approach'. By that, I mean an integral approach to the problem of genocide that accepts the social dimension of the issue. Rudolph Joseph Rummel has argued that liberal democracies are less prone to commit genocidal actions than other states.[54] Putting aside the question of whether this statement comes at the expense of ignoring settler colonial violence, which was partly set well within emerging democratic structures, there is yet another way to read the historical evidence: liberal democracies are, historically, rather wealthy and stable societies. Using Rummel as an analogy, we could conclude that richer societies are less prone to genocidal violence than poorer ones or, phrased differently, societies in crises are more prone to resort to genocidal violence than others.[55] A social justice approach therefore understands global social and economic inequality as a major root cause of violence, since the latter destabilises social communities and increases the likelihood of war over resources, of intra-societal fights for wealth distribution, and of an export of violence through refugees, to name just a few examples.

If we accept, however, extreme social inequality and social tensions as one of the root causes of genocide, effectively addressing global social injustice would be a means – if perhaps the most promising one – of preventing genocide. That would mean taking on a serious social problem of almost unimaginable proportions, one that cannot be solved by sending a few soldiers to fight a proxy war against genocide on behalf of the saturated majority at home. And it would mean that in contrast to lobbying for regime change 'over there' in the global south, we would also have to fight for changes in the economic consumer system 'over here' in the global north. All the more so in the light of climate change, because global injustice is getting worse with its effects.

This also has serious consequences for the perpetrator-victim position. No longer would scholars and genocide prevention activists from the global north be – by virtue of their location alone – the 'good guys' and the perpetrators always in the global south, but light would be shed on the very uncomfortable fact that genocide scholars and others are perpetrators as well. Whoever is serious about prevention will have to address the question of the current global hegemonic system, which perpetuates the highly unjust distribution of

wealth on our planet, a problem that will get even worse due to climate change and the scarcity of many vital resources (e.g. fossil fuels, potable water); an ideology of mere economic growth, claiming that the poorer regions of the planet will eventually be pulled out of poverty, is no longer in itself a viable or sensible option. On the contrary, cutting back on consumption is necessary purely in order to save the climate, without any element of wealth transfer between richer and poorer nations.[56]

Thus, in order to achieve sustainable prevention we have to address the wider issues of global injustice, its impact on societies, and its potential for igniting violence. For activists and lobbyists campaigning to prevent genocide, this means also addressing questions about the current world order.

Insurmountable as this task seems, genocide studies cannot shy away from what is probably the biggest challenge of the twenty-first century. This special issue on climate change and genocide will make a start by exploring the connection between climate change and genocide from a variety of disciplinary and geographical perspectives. I am delighted that natural and political scientists, anthropologists, economists and historians were prepared to join this experiment. This is certainly not the last word on the issue. However, if this volume initiates a change in how we think about the future of collective violence and prevention by accepting that environmental violence is a key part of the history of genocide, if this volume initiates discussion on the global nature of the problem in the sense that we might all become victims and many of us are perpetrators, the special issue will have fulfilled its main tasks. The other is a plea for true interdisciplinarity. Since the problems are highly complex, so need to be the attempts to understand them.

Notes on contributor

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Notes

1. IPCC WGI AR5 SPM, 27 September 2013, 2.
2. http://www.ipcc.ch.
3. The IPCC Summary Report concedes this pause, but sees no fundamental challenge to its findings.
4. John Cook, Dana Nuccitelli, Sarah A Green, Mark Richardson, Bärbel Winkler, Rob Painting, Robert Way, Peter Jacobs and Andrew Skuce, 'Quantifying the Consensus on Anthropogenic Global Warming in the Scientific Literature', *Environment Research Letters* 8, no. 22013. http://iopscience.iop.org/1748-9326/8/2/024024/article (accessed 27 March 2014).

5. IPCC WGI AR5 SPM, 27 September 2013, 2.

6. Hans von Storch for example has criticised the politicisation of the Climate Change (CC) and even made it a focus of scholarly analysis. Hans von Storch and Werner Kraus, *Die Klimafalle: Die gefährliche Nähe von Politik und Klimaforschung* (München: Hanser, 2013).

7. 'IPCC: 30 Years to Climate Calamity if We Carry on Blowing the Carbon Budget', *The Guardian* 27 September 2013. http://www.theguardian.com/environment/2013/sep/27/ipcc-world-dangerous-climate-change (accessed 18 December 2013).

8. See Andreas Exenberger and Andreas Pondorfer, 'Genocidal Risk and Climate Change: Africa in the Twenty-First Century', *The International Journal of Human Rights* 18, no. 3 (2014): 350–68.

9. See Gregory Kent, 'Crystallisations of the Global Western State in the Era of Climate Change', and Martin Crook and Damien Short, 'Marx, Lemkin and the Genocide – Ecocide Nexus', *The International Journal of Human Rights* 18, no. 3 (2014): 320–35 and 298–319.

10. See Rebecca Hofmann, 'Culturecide in Changing Micronesian Climates? About the Unintenionality of Climate Change', *The International Journal of Human Rights* 18, no. 3 (2014): 336–49.

11. Claus Leggewie and Harald Welzer, *Das Ende der Welt wie wir sie kannten* (Frankfurt/M: Fischer, 2010). See, for a similar approach, Mark Levene, 'Climate Blues: Or How Awareness of the Human End Might Re-instil Ethical Purpose to the Writing of History', *Environmental Humanities*, no. 2 (2013): 153–73.

12. See Jürgen Scheffran, Tobias Ide and Janpeter Schilling, 'Violent Climate or Climate of Violence? Concepts and Relations with Focus on Kenya and Sudan', *The International Journal of Human Rights* 18, no. 3 (2014): 369–90.

13. The International Energy Agency argues that we have already reached the peak of conventional fossil fuel. See International Energy Agency, *World Energy Outlook, 2013 Factsheet*, 3. http://www.worldenergyoutlook.org/media/weowebsite/factsheets/WEO2013_Factsheets.pdf (accessed 27 March 2014).

14. The German intelligence agency BND has forecasted that peak oil is not happening in the foreseeable future due to new production techniques such as fracking. 'BND warnt vor Klimawandel Konflikten', *Der Spiegel*, 1 November 2013. http://www.spiegel.de/wissenschaft/natur/geheimdienst-analyse-bnd-warnt-vor-klimawandel-konflikten-a-931290.html (accessed 5 November 2013).

15. See for example http://extremeenergy.org/2013/07/25/defining-extreme-energy-a-process-not-a-category/ (accessed 27 March 2014).

16. Donella H. Meadows, Dennis L. Meadows, Jørgen Randers, and William W. Behrens, *The Limits to Growth* (New York: Universe Books, 1972).

17. For an assessment of the original study see: Graham M. Turner. 'A Comparison of the Limits to Growth with 30 Years of Reality', *Global Environmental Change* 18 (2008): 397–411. http://www.csiro.au/~/media/CSIROau/Divisions/CSIRO%20Sustainable%20Ecosystems/SEEDPaper19_CSE_publication%20Standard.pdf (accessed 27 March 2014).

18. See also Mark Levene and Daniel Conversi, 'Subsistence Societies, Globalisation, Climate Change and Genocide: Discourses of Vulnerability and Resilience', *The International Journal of Human Rights* 18, no. 3 (2014): 281–97.

19. P.J. Crutzen, 'Geology of Mankind: The Anthropocene', *Nature*, no. 415 (2002): 23; W. Steffen, P.J. Crutzen, and J.R. McNeill, 'The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?', *Ambio*, no. 36 (2007): 614–21.

20. J. Rockström, W. Steffen, K. Noone, Å. Persson, F.S. Chapin, III, E. Lambin, T.M. Lenton, M. Scheffer, C. Folke, H. Schellnhuber, B. Nykvist, C.A. De Wit, T. Hughes, S. van der Leeuw, H. Rodhe, S. Sörlin, P.K. Snyder, R. Costanza, U. Svedin, M. Falkenmark, L. Karlberg, R. W. Corell, V.J. Fabry, J. Hansen, B. Walker, D. Liverman, K. Richardson, P. Crutzen, and J. Foley, 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity', *Ecology and Society* 2, no. 14 (2009): 32. http://www.ecologyandsociety.org/vol14/iss2/art32/.

21. Johan Galtung, 'Violence, Peace, and Peace Research', *Journal of Peace Research* 3, no. 6 (1969): 167–91.

22. Barack Obama, 'Presidential Study Directive/PSD-10′, Press Release, 4 August 2011. http://www.whitehouse.gov/the-press-office/2011/08/04/presidential-study-directive-mass-atrocities (accessed 1 November 2013).

23. Jürgen Scheffran, Michael Brzoska, Hans Günter Brauch, Peter Michael Link and Janpeter Schilling, ed., *Climate Change, Human Security and Violent Conflict: Challenges for Societal Stability* (Berlin: Springer, 2012).

24. Raphael Lemkin, *Axis Rule in Occupied Europe* (Washington, DC: Carnegie Endowment for International Peace, Divisions of International Law, 1944), 79. For new approaches to Lemkin see Donna-Lee Frietze, ed., *New Approaches to Raphael Lemkin*, Special Issue of the *Journal of Genocide Research* 3, no. 15 (2013); John Cooper: *Raphael Lemkin and the Struggle for the Genocide Convention* (London: Palgrave Macmillan, 2008).

25. Convention on the Prevention and Punishment of the Crime of Genocide. http://www.unhchr.ch/; html/menu3/b/p_genoci.htm (accessed 5 November 2013).

26. Report of the International Commission of Inquiry on Darfur. http://www.un.org/News/dh/sudan/com_inq_darfur.pdf (accessed 17 October 2013).

27. See for example the study by Daniel Levy and Natan Sznaider, *The Holocaust and Memory in the Global Age* (Philadelphia, PA: Temple Press, 2005).

28. Christian Gerlach has quite rightly criticised the overall focus in genocide studies on governmental elites, ideology and a single perpetrator, single victim dichotomy as well as the idea of perpetrators acting according to established blueprints. Christian Gerlach, *Extreme Violent Societies. Mass Violence in the Twentieth-Century World* (Cambridge: Cambridge University Press, 2010).

29. For a far more advanced and complex model see the 'Minority at Risk Project'. http://www.cidcm.umd.edu/mar/ (accessed 12 March 2014).

30. I have touched upon this subject elsewhere: See Jürgen Zimmerer, 'Beyond Gaddafi: Sustainable Prevention in the Face of Environmental Injustice', *Journal of Genocide Research* 1–2, no. 13 (2011): v–vii.

31. Gregory Stanton, 'The 8 Stages of Genocide'. http://www.genocidewatch.org/genocide/8stagesofgenocide.html (accessed 14 October 2013).

32. Ibid. See the impressum for the reference to the State Department.

33. For a critical assessment of humanitarian interventions see: Alex J. Bellamy, 'Military Intervention', in *Oxford Handbook of Genocide Studies*, ed. D. Bloxham and A.D. Moses (Oxford, Oxford University Press, 2010), 597–616. For a critical assessment of the potential abuse of humanitarian intervention by the US with particular reference to the R2P, see Daniel Feierstein, 'The Good, the Bad, and the Invisible. A Critical Look at the MARO Report', *Genocide Studies and Prevention* 6, no. 1 (2011): 39–44; and Daniel Feierstein, 'Getting Things into Perspective', *Genocide Studies and Prevention* 4, no. 2 (2009): 155–60.

34. Stanton, 'The 8 Stages of Genocide'.

35. For a colonial example see, Jürgen Zimmerer, 'Deutscher Rassenstaat in Africa. Ordnung, Entwicklung und Segregation in "Deutsch-Südwestafrika" (1884–1915)', in *Gesetzliches Unrecht. Rassistisches Recht im 20. Jahrhundert* [=Jahrbuch zur Geschichte und Wirkung des Holocaust 2005] (Frankfurt/M.: Campus, 2005), 135–53.

36. United Nations, General Assembly 2005 World Summit Outcome Document. http://www.un.org/en/preventgenocide/adviser/pdf/World%20Summit%20Outcome%20Document.pdf#page=30 (accessed 6 November 2013).

37. For genocide and international relations see also: Adrian Gallagher, *Genocide and its Threat to Contemporary International Order* (Houndmills: Palgrave, 2013); and Martin Shaw, *Genocide and International Relations, Changing Patterns in the Transitions of the Late Modern World* (Cambridge: Cambridge University Press, 2013).

38. For the concept of 'police action' see: Paul Rogers, *Losing Control: Global Security in the Twenty-First Century* (London: Pluto Press, 2010).

39. I have touched upon this in: Jürgen Zimmerer, 'From the Editors: Environmental Genocide? Climate Change, Mass Violence and the Question of Ideology', *Journal of Genocide Research* 3, no. 9 (2007): 349–51. For an overview of various cases of genocide see: Donald Bloxham and A. Dirk Moses, eds, *The Oxford Handbook of Genocide Studies* (Oxford, Oxford University Press, 2010).

40. See for a general overviews: Mark Levene, *Genocide in the Age of the Nation State*, Volume 2 (London: I.B. Tauris, 2005); A. Dirk Moses, ed., *Genocide and Settler Society: Frontier Violence and Stolen Indigenous Children in Australian History* (New York: Berghahn Books, 2004); A. Dirk Moses, ed., *Empire, Colony. Conquest, Occupation, and Subaltern Resistance in World History* (New York: Berghahn Books, 2008); A. Dirk Moses and Dan Stone, ed., *Colonialism and Genocide* (London: Routledge, 2007).

41. Jürgen Zimmerer, 'Colonialism and the Holocaust. Towards an Archaeology of Genocide', in *Genocide and Settler Society: Frontier Violence and Stolen Indigenous Children in Australian History*, ed. A. Dirk Moses (New York: Berghahn Books, 2004), 49–76; Jürgen Zimmerer, 'The Birth of the "Ostland" Out of the Spirit of Colonialism: A Postcolonial Perspective on the Nazi Policy of Conquest and Extermination', *Pattern of Prejudice*, no. 39 (February 2005): 197–219; Jürgen Zimmerer, *Von Windhuk nach Auschwitz. Beiträge zum Verhältnis von Kolonialismus und Holocaust* (Münster: LIT-Verlag 2011) (An English edition will be published with Routledge in 2014).

42. Norbert Finzsch, '"[. . .] Extirpate or Remove that Vermine": Genocide, Biological Warfare, and Settler Imperialism in the Eighteenth and Early Nineteenth Century', *Journal of Genocide Research* 2, no. 10 (2008): 215–32; Norbert Finzsch, 'Pre-Frontier, Landnahme und Sozioökologische Systeme in Australien, 1788 bis 1901', in *Themenportal Europäische Geschichte* (2013). http://www.europa.clio-online.de/2013/Article=614; Mohamed Adhikari, *The Anatomy of a South African Genocide: The Extermination of the Cape San Peoples* (Cape Town: University of Cape Town Press; and Athens, OH: Ohio University Press, 2010).

43. See Zimmerer, 'Colonialism and the Holocaust'.

44. Helen Fein, 'Definition and Discontent: Labelling, Detecting, and Explaining Genocide in the Twentieth Century', in *Genozid in der modernen Geschichte*, ed. Stig Förster and Gerhard Hirschfeld (Münster: LIT-Verlag, 1997), 11–21, 20.

45. Lemkin, *Axis Rule in Occupied Europe*, 79. Lemkin himself did not see the concept of genocide as being limited to the Third Reich and its crimes, but also based it on his understanding of the Armenian genocide. Later he developed a global concept and worked on a three-volume global history of genocide, unfortunately unfinished and unpublished, in which he intended to devote a great deal of attention to genocide in the colonial context. For Lemkin as a historian of mass violence, see Dominik J. Schaller and Jürgen Zimmerer, ed., *The Origins of Genocide. Raphael Lemkin as a Historian of Mass Violence* (London: Routledge, 2009).

46. Zimmerer, 'Colonialism and the Holocaust'.

47. For an introduction to Lemkin's thinking on that matter see Dirk Moses and Raphael Lemkin, 'Culture, and the Concept of Genocide', in *The Oxford Handbook of Genocide Studies*, ed. Donald Bloxham and A. Dirk Moses (Oxford: Oxford University Press, 2010), 20–41.

48. Most of the scholars responsible for this turn in the history of the Third Reich have presented their findings in Ulrich Herbert, ed., *National Socialist Extermination Policies: Contemporary German Perspectives and Controversies* (New York: Berghahn, 2000). See there for further references.

49. For the idea of reading the German war against the Soviet Union as an attempt at empire building, see Zimmerer, *Windhuk nach Auschwitz*. Since the beginning of this discussion, overviews have been presented by Mark Mazower, *Hitler's Empire. Nazi Rule in Occupied Europe* (London: Penguin, 2008); and Shelley Baranowski, *Nazi Empire: German Colonialism and Imperialism from Bismarck to Hitler* (Cambridge: Cambridge University Press, 2010).

50. Charles Anderton, 'Choosing Genocide. Economic Perspectives on the Disturbing Rationality of Race Murder', *Defence and Peace Economy* 5–6, no. 21 (2010): 459–86.

51. Max Horkheimer and Theodor Adorno, *The Dialectics of Enlightenment* (Stanford, CA: Stanford University Press, 2002 [1944]).

52. Zygmunt Bauman, *Modernity and the Holocaust* (Ithaca, NY: Cornell University Press, 1989); Zygmunt Bauman, *Modernity and Ambivalence* (Cambridge: Polity, 1991).

53. I have sketched out this idea briefly in Jürgen Zimmerer, 'Beyond Gaddafi: Sustainable Prevention in the Face of Environmental Injustice: Some Words of Praise but Also Caution!', *Journal of Genocide Research* 3, no. 13 (2011): 209–15; and Zimmerer, 'Genocide Studies for the Twenty-first Century: A Departing Editor's Perspective', *Journal of Genocide Research* 3, no. 13 (2011): 205–8.

54. See for example Rudolph Rummel, *Death by Government: Genocide and Mass Murder in the Twentieth Century* (New Jersey: Transaction Publishers, 1994); and Rudolph Rummel, *Statistics on Democide. Center on National Security and Law* (Charlottesville: University of Virginia, 1997). See also his webpage at: http://www.hawaii.edu/powerkills/.

55. Mark Levene has repeatedly pointed to crises as a factor in the development of genocidal situations. See for example his multi-volume *Genocide in the Age of the Nation State* (London: I.B. Tauris, 2005).

56. See for example Harad Welzer, *Selbst Denken. Eine Anleitung zum Widerstand* (Frankfurt/M: S. Fischer, 2013).