

Detlef Briesen [ed.]

Armed Conflict and Environment

From World War II to Contemporary Asymmetric Warfare



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Introduction. Armed Conflict and Environment – War Impacts, Impacts of War, and Warscape

Detlef Briesen

This volume gathers contributions from a conference on War and Environment that took place at the University of Social Sciences and Humanities, National University of Vietnam, Hanoi, (USSH) in autumn 2014. The conference which was generously funded by the DFG (German Science Association) and supported by Prof Pham Quang Minh and Prof Hoang Anh Tuan of the USSH in a wonderful way brought together an international group of scientists. They discussed the connections between war and the environment using the example of the war that is internationally denominated the Vietnam War – in Vietnam itself, the war that lasted from the early 1960s to the mid-1970s is called the American War. The expertise gathered at this time with participants from Vietnam, Cambodia, Germany, the Netherlands, Norway, France, the USA, Japan and India seemed to suggest publishing an anthology on this topic.

While the Vietnam War was originally taken for the conference only as a (frightening) example of the connection between war and environment, it soon became clear that a historical classification was solely meaningful if the history of this interdependence was traced back at least for the entire 20th century. Only in this way was it possible to understand the changes that took place during this period, for which the Vietnam War somehow is a culmination and a turning point at the same time. We will come back to this aspect later; first, we will deal with the two basic concepts of the conference, *war* and *environment*.

Looking for a definition, *war* is often understood as an organized type of violent conflict employing weapons and other agents of violent action, or *äußerste Gewalt* (utmost force) as Clausewitz put it, to impose the will of another party on one party. According to Clausewitz, a war does not begin with the attack but with the defence, i.e. the decision to resist the attempt to get one's own actions determined by others. According to Clausewitz' classical theory, war is an organized conflict which is fought out with considerable means of arms and violence. The aim of the participating collectives is to assert their interests. The resulting acts of violence

specifically attack the physical integrity of opposing individuals and thus lead to death and injury. In addition to damage to those actively involved in the war, damage also always occurs, which could be unintentional or intentional. Therefore, war also damages the infrastructure and livelihoods of the collectives. There is no uniformly accepted definition of war and its demarcation from other forms of armed conflict. Wars can, therefore, be classified into different basic types, whereby previous definitions often still concentrate on armed conflicts between two or more states. In addition, there are also guerrilla wars between a population and an enemy state army, civil wars, the struggle between different groups within a state, sometimes even beyond state borders, and wars of nationalities and independence. *Wars* are sometimes separated from *armed conflicts*, the latter are regarded as sporadic, rather accidental and non-strategic armed clashes between fighting parties. Since the end of the Soviet Union, so-called asymmetric wars, in which state-backed, conventionally highly superior military forces on the one hand, and opponents balancing their weakness with guerrilla techniques on the other, have multiplied. Examples of such a conflict are today's *war on terror* or the US drone war and the actions of Israel and Russia in the Middle East. These asymmetric wars, in particular, are now often semantically downgraded to police actions.

Despite intensive discussions, it was not possible to find a uniform definition under international law that restricts the concept of war. The Conference for the Reduction and Limitation of Armaments (1932–1934) therefore replaced the unspecific term *war* with the clearer *use of armed force*. The United Nations Charter banned not *war* but the *use or threat of force* in international relations in principle¹ and allowed it only as a sanction measure adopted by the Security Council or as an act of self-defence. The Geneva Conventions use the term *armed international conflicts* to be distinguished from other forms of violence, such as internal conflicts. What an international armed conflict is, however, is not defined by the Geneva Conventions. The same is true for other types of violence, as a result of this unclear terminology, it can be helpful to look at the history of armed conflict instead.

1 “All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.” Charter of the United Nations, Article 2, paragraph 4, in: <http://www.un.org/en/sections/un-charter/chapter-i/index.html>

Historically, until Napoleonic times, the history of war fluctuated between the two poles of an agonal war and an unlimited war that primarily affected the population not directly involved in the fighting. Examples of this are the so-called Cabinet Wars of the 18th century and the Thirty Years' War. To what extent this subdivision could only have been fiction shall not be answered here, after all, it is important to emphasize that even this subdivision has only been applied to conflicts between states. Many uses of violence against actors declared *non-state* have therefore not been taken into account. Under international law at least, an important caesura occurred in the 19th century: its fundament was the continuing warfare in the 19th century and the increasing role of the modern armaments industry for war (visible in the Crimean War, the American Secession War and the German and German-French War). Since then, the first attempts were made to limit and regulate armed conflicts, which established themselves as modern international law. This resulted in a codified martial law or law of armed conflict. Its most important cornerstones were already laid before 1914:

- firstly, the Geneva Convention of 1864 primarily provided for the humane care of war victims;
- secondly, and the Hague Convention of 1907, which for the first time strictly separated civilians and combatants.

The latter also laid down a revolutionary sentence in Article 22: “The right of belligerents to adopt means of injuring the enemy is not unlimited.”² The most important thing about this provision was the fact that it introduced a principle to limit warfare in international conflicts – and that this principle was increasingly ignored in the real warfare of the 20th century. If one looks at it from a European perspective, the Balkan Wars already ushered in an era of extreme violence, including the Colonial Wars and the wars in Asia, one can even understand the Hague Convention as a document of an epoch in which warfare increasingly began to evade control. Without a doubt, however, in the First World War the use of machine guns, tanks, airplanes, submarines, battleships, poisonous gas and the total war economy led to a new face of war. Field and naval battles claimed millions of lives and millions of people were seriously injured. However,

2 See International Committee of the Red Cross: <https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/Article.xsp?action=openDocument&documentId=56AA246EA8CFF07AC12563CD0051675A>.

the wars on the various fronts waged between 1914 and 1918 were by no means the only acts of violence attributable to the collapse of the international order in 1914. What followed the peace treaties since 1919 was rather a continuation of violence at various levels: civil wars, revolutions, anti-colonial uprisings, mass murders, expulsions, wilfully produced famines and, last but not least, major international conflicts such as the Japanese-Chinese wars. There was, therefore, a gradual transition from World War I to World War II rather than a definitive period of peace in the 1920s and 1930s. Such an idea is apparently decisively determined by the propagandistic appropriation of history, as it was apparently pursued by the victorious powers of the Second World War in retrospect.

Like the first, this began as a conventional war, but quickly and unstopably became a total war. State-controlled war economy, martial law, general conscription and propaganda battles on the home front involved the peoples completely in the fighting. The mobilisation of all national reserves for war purposes removed the distinction between civilians and combatants. Warfare, especially in Eastern Europe and East Asia, largely ignored the international law of armed conflict:

- by an ever-escalating bomb war, especially on targets in densely populated areas, which culminated in the Allied bomb attacks on Germany and Japan;
- by combining territorial conquest and mass killings of civilians on the Eastern Front and in China;
- by leaving to die millions of POWs;
- by the strategy of the *burnt earth* in the theatres of war in East Asia and Eastern Europe;
- by the atomic bombings of the USA on the Japanese cities Hiroshima and Nagasaki.

With the surrender of the Wehrmacht and the Japanese Empire in 1945, however, this history of violence by no means came to an end, despite the founding of the UN. Especially in the Korean War, it continued as a more or less direct confrontation of the superpowers of that time. It was only with the establishment of a Balance of Power, around the mid-1950s, that a new chapter in the war history of mankind began. Most of the wars that then took place until the collapse of the Soviet Union in 1991 were so-called proxy wars. A proxy war is a war in which two or more major powers do not engage in direct military conflict, but instead, conduct this military conflict in one or more third countries. The third countries thus act

quasi as representatives of the major powers that are often *only* involved in the background.

The proxy war is characterized by the fact that a conflict, civil war or war that usually already exists in third countries is exploited for the respective own purposes of the major powers involved and, if this is not yet the case, expanded into a military conflict. The primary goal of the major powers in the proxy war is to preserve or expand their respective spheres of interest at the expense of the other major powers. The warring parties in the third countries receive direct or indirect support with the aim of helping the respective warring party to victory. The support can be indirect through military aid, logistical, financial or other, or direct by military intervention. The sphere of interest of the supporting great power is expanded and strengthened by a victory of the respective war party. The main cause of a proxy war is generally the fact that the major powers involved do not want a direct military confrontation. Under the conditions of the Cold War and the nuclear weapons of the superpowers, this was a basic condition that ensured the survival of mankind. The level of violence and war destruction was even higher in some proxy wars (especially like Korea, if you consider this conflict as a proxy war and in Vietnam) than on the western and southern fronts of World War II; among other things due to the further development of weapons and because another aspect was added there, the complete destruction of the human and natural environment.

Characteristic of the period after 1987, the beginning of the disintegration of the Eastern Bloc, were initially major international military interventions, which were legitimized by decisions of the World Security Council and were considered supranational peace missions. In a second phase, they were replaced by unilaterally decided military actions, which NATO and finally the USA carried out alone with the respective *coalitions of the willing*. In the meantime, asymmetric wars have prevailed. An asymmetric war is a military conflict between parties that have very different orientations in terms of weaponry, organization, and strategy. Because asymmetric warfare differs from the familiar image of war, the term asymmetric conflict is also used. Officially, they are often portrayed by the hegemonic side as police actions.

Typically, one of the warring parties involved is so superior in terms of weaponry and numbers that the other warring party cannot win militarily in open battles. In the long term, however, needle-sting losses and weariness caused by repeated minor attacks can lead to the withdrawal of the

superior party, also due to the overstretching of its forces. In most cases, the militarily superior party, usually the regular military of one state, acts on the territory of another or its own country and fights against a militant resistance or underground movement.

Let us now turn to the second term, the environment. This has a basically similar complexity as the term war, since the term environment can signify different meanings in the context of various discourses: in political-ecological debate, in the humanities, in system theory, in organizational theory, in science, and in biology in particular.

Since this anthology is a contribution to a novel debate on armed conflict and environment, a restrictive definition is not given below. Rather, the aim is to show the various options for dealing with the interdependencies between armed conflicts and *environments* on the time axis outlined above and at various levels. The relationship between war and the environment can be summarized in three models or systematizing questions.

1. What are the effects of the human and natural environment on war, its course and the way war is fought?

This is the longest of any discussion of the subject. The leading military theorists always have known that an entire war or single military operations do not take place in sandboxes, but in the field of battle. Since the Napoleonic Wars, the social conditions of war, Clausewitz called it *will*, have repeatedly been discussed, taking into account the influence of natural factors on warfare, terrain and geostrategic space for warfare in particular. A look at military theory of the 19th and 20th centuries still provides interesting insights into the role of the human and physical environment in warfare: Carl von Clausewitz, Alfred Thayer Mahan, Charles Edward Caldwell, and Mao Zedong, to name but the most important contributors. Today, this approach is often being expanded to ask how the change in natural environments has generated wars – we can consider the role El Niño on Mezzo-American civilizations, the Little Ice Age, or climate change.

2. *How are wars, their course and conduct, influenced by human and natural environments?*

Furthermore, there has long been a manifest complaint about the devastation of war, for example in Europe in relation to the Thirty Years' War. However, a more systematic approach to the consequences of the war did not emerge until much later. With a view to the destruction of the human environment, especially since the First World War, in relation to the natural environment, not before the 1950s, initially in the context of the debates on the consequences of the nuclear winter. The first historical war in which a specific combination of peace research and pacifism combined with modern scientific methods was the American War in Indochina and the resulting damage to human and natural environments deliberately caused by the USA. These approaches were then further elaborated in the analysis of the Second Gulf War. The result is a current state of research that has put the actions of the most warlike nation of the second half of the 20th century, the USA, at the centre of attention, particularly in the field of the destruction of nature.

3. *How can we understand war as a human-natural interaction system?*

This approach begins to prevail only in recent years and it is based on system theory and on adoptions of ecological concepts on war. The basic idea of an ecology of war puts Micah Muscolino very well. I quote from him:

“Environmental factors mold the experience of war for soldiers and civilians alike, while war and militarization transform people’s relationships with the environment in enduring ways.”³

This means that, especially under the conditions of total war, complex war-landscapes emerge, which – compared to times of peace – are based on completely different relationships of mankind to the natural and man-made environment. Or vice versa: that natural and man-made environments predispose human behaviour in a different way than is the case in peacetime. The war, as Kurt Lewin had already recognized in 1917,

3 Mucsolino, Micah S. (2015): *The Ecology of War in China. Henan Province, the Yellow River, and Beyond, 1938–1950*. Cambridge. 3.

changes people's view of their environments just as much as the war environments change people.⁴

The contributions gathered here attempt to understand these three aspects of the relationship between armed conflict and the environment for the historical developments outlined above in the 20th century: from the total wars of the first half of the century to the Vietnam War as an example of the proxy war par excellence to today's asymmetric wars in Sri Lanka and India. Reading this will reveal an implicit division of tasks.

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4 Lewin, Kurt (1917): *Kriegslandschaft*. In: *Zeitschrift für angewandte Psychologie* 12, 440–447.

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I.
Until 1955

The War-Landscape of Stalingrad. Destroyed and Destructive Environments in World War II

Detlef Briesen

1. Introduction: Warscape

This article uses an infamous example, the Battle of Stalingrad, one of the peaks of the Second World War in Europe, to make the idea of the war-landscape or *warscape* productive for the analysis of wars. This is done to show the connections between war and the environment in a broader sense, which includes both the environment lived and built by man and the natural environment. The Battle of Stalingrad was the most loss-making battle of the Second World War in Europe. Although estimates differ somewhat, it seems clear that the troops of the Axis powers – Germans, Italians, Romanians and Hungarians – together had to mourn about half a million dead and prisoners. About 150,000 German soldiers from 300,000 before the beginning of the battle died in the fighting or as a result of hunger or cold. With the end of the carnage, some 108,000 men fell into Soviet captivity, from which only 6,000 survivors returned to their home countries by 1956. The losses of the Red Army were similarly high; it also suffered about half a million deaths. About another 500,000 combatants were wounded or fell ill during the battle. In addition, numerous civilian deaths occurred on the Soviet side.

Recent studies show that this gigantic massacre and the appalling treatment of prisoners of war and civilians by both sides cannot be attributed solely to the will of two ruthless dictators, Hitler and Stalin who fought a prestige duel on the Volga. Their unconditional will to win a war beyond all international conventions, which the German side had triggered, may explain the carnage in parts. The battle was actually fought over a strategic line of communication, the Volga, which was to prove decisive for the further course of the war. But above all, it should be borne in mind that the acts of violence took place against a background of continued lack of

peace in an area that Timothy Snyder rightly described as *bloodlands*.¹ This was a consequence of the First World War. In large parts of Central, Central-Eastern and Eastern Europe, the war and the subsequent peace treaties had broken up the old European empires and inspired dreams of new national greatness. The dynastic idea – Romanov, Habsburg, and Hohenzollern – was replaced by the fragile concept of popular sovereignty. Since then, millions of people have been prepared to obey orders, fight, die or commit the most heinous crimes in the name of the nation. In the interwar period, in Europe between 1919 and 1939, states were often arbitrarily defined and hundreds of thousands of people were murdered or displaced.

In the former Russian Empire, the Soviet Union in particular, violence and even genocide continued with millions of deaths already prior to 1941. Keywords must suffice here: revolutions, civil war, famines, Holodomor, forced collectivization and mass deportations. This per se non-peaceful world was invaded by other violent actors, the troops of Nazi Germany and its allies. Terrible events that took place under German rule in Central-Eastern and Eastern Europe are all too well known, especially the Shoah, to a lesser extent the mass killings of Poles, Belarusians, Ukrainians and other peoples of the European East.

In short, the Eastern Front of the Second World War was in an area of the world that had been anything but peaceful even before the German invasion in 1941. This fact played a decisive role for all the key actors in this conflict and for their personnel, soldiers, mass murderers and war mongers too. It also determined the formation of a terrible, unique war landscape, the Eastern Front, which we are trying to approach here with the term *warscape*.

The term is derived from considerations that Kurt Lewin, one of the founders of Gestalt and social psychology, had developed from his own war experiences, among other things.² These considerations are based on the fact that there is a connection between a war and the natural and cultural landscape in which the war is fought. It is not only about objective conditions, but also about the combatants' ideas about and perceptions of the natural and cultural landscape in which a war takes place. As a result,

1 Snyder, Timothy (2010): *Bloodlands*. Europa zwischen Hitler und Stalin. München. 23ff.

2 Lewin, Kurt (1917): *Kriegslandschaft*. In: *Zeitschrift für angewandte Psychologie* 12, 440–447.

there are many connections between the landscape and the way in which war is waged, which could be described as a specific entity, war-landscape. War-landscapes or warscapes are areas marked by violence and insecurity. It is, therefore, to be expected that the Eastern Front was not only because of Hitler's and Stalin's murderous intentions a much more terrible theatre of war than the Western and Mediterranean fronts. The structures of violence that ruled Eastern Central and Eastern Europe before 1941 also contributed to the extreme inhumanity of the fighting, with which the German side, in particular is by no means exculpated for its mass murders.

A specific warscape depends on many factors, for example, terrain, climate, buildings and other components of human-influenced environments. The term *environment* is therefore not only understood here in terms of environmental protection. Other environments also influence warscape, including of course the military itself and its development during a long war. This story of the rise of the Red Army and the decline of the Wehrmacht belongs to one of the best described areas of historiography about the Second World War. The following, mostly excellent works of art also provide indirect or direct information about the changes in the war-landscape: Beevor (2014), Beevor (2010), Craig (1973), Glantz/House (2017), Keegan (2004), Merridale (2006), Overy (2000), Overy (2012), and Ulrich (2005).³

Warscapes also have an iconic function, especially after the end of a war; Stalingrad is a particularly remarkable example of this. As early as the 1950s, Stalingrad became a symbol of West Germany's concern with the horrors and crimes on the Eastern Front.⁴ This was conducted under moral, at first predominantly even religious auspices, which at the same time refers to the turn to the Christian roots of German culture that took place after the Second World War, resulting in numerous films, novels, factual reports and first editions of military mail.⁵ These historic sources also contain numerous testimonies to the changes in the war-landscape that happened especially in the last weeks of the Battle of Stalingrad.

3 The detailed bibliographical references can be found in the literature list below.

4 See e.g. Förster, Jürgen (ed.) (1992): *Stalingrad. Ereignis, Wirkung, Symbol*. München. Kumpfmüller, Michael (1995): *Die Schlacht von Stalingrad. Metamorphosen eines deutschen Mythos*. München. Wette, Wolfram/Ueberschär Gerd R. (eds.) (1993): *Stalingrad. Mythos und Wirklichkeit einer Schlacht*. Frankfurt.

5 See e.g. Kluge, Alexander (1964): *Schlachtbeschreibung*. Frankfurt.

In particular, attempts were made to reconstruct the perception of simple German soldiers. For this purpose, collections and analyzes of military mail, which are now available in increasing numbers, are suitable. They show – so the general picture – the attitude change of most soldiers: Initially, there was obviously a mixture of hubris, feeling the need to defend the homeland, duty and skepticism. Depending on the location and the experience of the war, military mail expressed increasing doubts, fears, longings, and desperation.⁶ Even the original sense of superiority to the Eastern Europeans, or even the affirmation of the racist propaganda spread by the Nazi regime, was being replaced by personal opinions about individuals.⁷ This process has been so often described by the German side that it is not depicted here. On the other hand, editions of Russian experience reports beyond hero worship, which continued even after 1991, have so far been rather rare. Much has been edited and published with German help.⁸

It is important to emphasize that there was not a single warscape Stalingrad. Perception, action and suffering of the war took place on various levels. These are therefore reconstructed at four levels: that of the politico-military leadership of the war, that of the operational leadership and that of those involved in the struggle. Finally, a fourth war-landscape is presented, which was museumized after the end of the Second World War. In short, the article tries to answer an important question that John Keegan asked: What could the individual even see in battle?⁹ In this way, it is to be prevented that the retrospective interpretation, which always characterizes the historical analysis, becomes too important here.

6 For example see, Wiesen, Bertold (ed.) (1991): *Es grüßt Euch alle*, Bertold. Von Koblenz nach Stalingrad. Die Feldpostbriefe des Pioniers Bertold Paulus aus Kastel. Nonnweiler. Birnbaum, Christoph (2012): *Es ist wie ein Wunder, dass ich noch lebe. Feldpostbriefe aus Stalingrad, 1942–43*. Königswinter.

7 Kipp, Michaela (2014): *Grossreinemachen im Osten. Feindbilder in deutschen Feldpostbriefen im Zweiten Weltkrieg*. Frankfurt.

8 See e.g. Ebert, Jens Ebert (ed.) (2018): *Junge deutsche und sowjetische Soldaten in Stalingrad. Briefe, Dokumente und Darstellungen*. Göttingen. Hellbeck, Jochen (2012): *Die Stalingrad-Protokolle. Sowjetische Augenzeugen berichten aus der Schlacht*. Frankfurt.

9 Keegan, John (1978): *Das Antlitz des Krieges*. Düsseldorf. 147ff.

2. *The Global Warscape*

Let us first take the perspective of the leaders of the Second World War, Hitler, Stalin, Churchill, and Roosevelt. Certainly the big perspective was their agenda. It can be reconstructed in the following way.

Wars, civil wars, anti-colonial rebellions, revolutions, famines, massacres and revolts continued to take place in the 1920s and 30s. Anything else would be right but to call this epoch a time of peace between two world wars. The First World War had finally destroyed the post-Napoleonic peace order. Immediately after the end of the Great War, the still most powerful loser of the First World War, the German Empire, was subject to considerable control by the victorious powers of Great Britain and France. However, this dominance was already lost by the end of the 1920s, which was due to a plethora of factors: the conflicting interests between the Great Powers, the beginning collapse of the colonial empires, the extreme economic vicissitudes, etc. had led in Europe and Asia to the final disintegration of an international order, which the victorious powers had aimed at building up during the Paris Peace Conferences since 1918. One result of this was the rise of the Hitler's Empire in Europe and the Japanese Empire in Asia, which in turn had enabled the German attack on the Soviet Union in the summer of 1941. The German goal was to restore under racist conditions the empire in the European East which it had gained for a few months in the peace treaty of Brest-Litovsk already.

But Nazi Germany's military operations had not achieved the intended goals in the war against the Soviet Union until the spring of 1942. The Blitzkrieg got stuck in mud, snow and ice, and in particular, the Wehrmacht failed to capture the strategically important Moscow. Therefore, a new offensive was planned for the summer of 1942, which at the same time changed the overall objectives of German operations. The German OKW, and especially Hitler himself, believed that the Soviet Union had been largely defeated and wanted to put it to death in a *second blitzkrieg*. By a major offensive in eastern Ukraine, the Soviet Union was to lose decisive agricultural and industrial resources, especially as the offensive had an even more ambitious goal: the Soviet Union was to be cut off from the supply from the Cape oil fields, the areas were eventually even to be conquered by the Wehrmacht. Caspian oil was central to motorized Soviet warfare; but until the attack in the summer of 1941, Germany had also obtained most of its oil from there. Since the war in the East took much longer and was much more internecine than planned, central resources for

German warfare began to be scarce. This was due to the cut off of Central Europe from the world market and the low availability there, in particular, due to the insufficient production of crude oil.

The German summer offensive received the name *Fall Blau* (Case Blue) and reached its operational goals very quickly: One reason was that the Soviet defensive potential was initially insufficient because the Stavka had expected a German offensive on Moscow. By the summer of 1942, about 50 percent of the Red Army had been concentrated there. Therefore, the result of the three attack phases from late June to November 1942 was initially very impressive from a German point of view: until the onset of winter, the Wehrmacht had conquered large parts of the area between the Black and Caspian Seas. First oilfields were under German control, the western bank of the Don River had been won as a defensive line. The German troops also managed to reach the Volga River at Stalingrad, thus occupying a strategically important place in large parts. However, again the Germans had failed to defeat the Red Army decisively.

Looking at the German orders prior to the beginning of *Fall Blau* an important aspect is missing, which should prove crucial for the entire course of the Second World War and the perspectives of Stalin, Churchill and Roosevelt: the battle was central to keeping open the Persian Corridor. This aspect has long been overlooked, especially in German scholarly literature: either because the global context of the battle was unknown to the authors or because the OKW, on which actions the historiography was essentially based, had also no knowledge about the real relevance of the battle for the Allied side.

The latter, however, is rather unlikely, because since 1925, with the seizure of power by Reza Shah an intensive collaboration between the German Reich and Persia had begun. It was especially at the expense of Great Britain, which had agreed with Russia on a joint, informal control of Iran before the First World War. After the Great War, in particular, Britain controlled Iran's oil production in the Persian Gulf and operated the then world's largest refinery at Abadan. This presence was threatened by the German *development aid* for Persia and the phased cooperation with the USSR, first and foremost by the largest project, which had been tackled with German aid: the construction of a Trans-Iranian Railway from the Caspian Sea to the Persian Gulf. However, the further expansion of the Trans-Iranian Railway came to a standstill with the outbreak of the war between Germany and Great Britain in September 1939.

In the following it becomes more apparent, in which global war landscape of great powers, political and natural geography and central resources the Battle of Stalingrad was integrated. Despite the fact that the Persian government had already declared its neutrality with the outbreak of the war in 1939, Persia was increasingly involved in the fight to control the Middle East that broke out between Hitler's Germany and the British Empire after the collapse of France in 1940.

The tensions continued to increase with the German attack on the Soviet Union. Already two weeks after the assault, in early July 1941, the British Government ordered its military to plan an attack on Iran supported by the Soviet Union. But immediately after the German invasion, the Soviet Union had no resources for such an operation and officially declared that it would see no threat to relief supplies from Britain and the US via the Trans-Iranian route. This changed abruptly as it became clear how vulnerable other supply routes were: Turkey prohibited the transport of military goods through Dardanelles and Bosphorus, the northern route to Murmansk and Arkhangelsk proved extremely endangered by German attacks. The long supply routes from the USA to the Russian Pacific coast could be stopped at any time by Japanese interventions.

Therefore, on July 23, 1941, the British and Soviet governments agreed to occupy Iran. A joint operation plan for it was already created until August 7, 1941. The aim of the joint *Operation Countenance* was to secure the Iranian oil fields and at the same time build up a secure supply line through Iran. It would allow military supplies to be transported by ship from the United States through the Suez Canal to ports on the Persian Gulf. From there, the supplies could then be transported by rail and road to the Caspian Sea, and finally by boat across the Caspian Sea and the Volga to the interior of Russia, to the industrial areas and to the fronts. On August 25, 1941, British and Russian soldiers invaded Iran, which among other things led to the abdication of the former Persian emperor in favour of his son Mohammed Reza. The Allies assured him of full national sovereignty after the end of the war. In return, the Allies were granted full control over all transport and communications links such as railways, roads, airports, ports, pipelines, telephone networks and radio. Thus, the transport route from the Persian Gulf through Iran to the Caspian Sea and then on ships to Astrakhan was open.

The aid deliveries on the Trans-Iranian route started quickly, especially as the US was soon directly involved in their organization in Iran. Already on September 27, 1941, an American military mission began work in Iran.

American technicians and specialists built and ensured safe traffic through the Persian Corridor to ensure massive military material support for Soviet troops. The Americans improved the Iranian infrastructure by constructing port facilities, roads and assembly halls for aircrafts and trucks.

In October 1942, the American troops took over the primary responsibility in Iran. The US *Persian Gulf Command (P.G.C.)* replaced the British troops and began with the beginning of the Battle at Stalingrad the delivery of many millions of tons of material directly to the fighting Soviet forces through Iran, weapons, planes, food, clothing, and medicines. The supplies were crucial for the Battle at Stalingrad but even intensified with the final end of the fighting on the Volga in the late winter of 1943. Therefore, Stalingrad was a victory of the Allies, which went far beyond the narrower operational objectives: The transport route across the Volga was free-fought; the Persian corridor proved to be crucial for the subsequent military operations of the Soviet Union in 1943 and 1944 and therefore for the entire Second World War.

3. *The Regional Warscape: the City and its Nature*

But the Battle of Stalingrad was also part of a gigantic military operation planned by men like Erich von Manstein, Friedrich Paulus, Hermann Hoth, Vasily Chuikov, Aleksandr Vasilevsky, and on the Soviet side, especially by Georgy Zhukov. What was their perspective?

Stalingrad bore the name of the Russian dictator, and lies on the Volga, a river that has a tremendous national significance in Russia. So maybe the battle there had significant symbolic meaning for the warring parties. More important, however, was Stalingrad's role for Soviet and German warfare. Let's take a closer look at its geographical location and economic and logistic function.

The city is located about 1,000 km southeast of Moscow on the western bank of the Volga, about 400 km north of the mouth of the river into the Caspian Sea. After the effective climate classification, a system dating back to Vladimir Peter Köppen (1846–1940), the city lies in the cold continental climate zone, with cold winters, but also with hot summers and sufficient rainfall throughout the year. Thus, the city is neither lying, as it is sometimes claimed in the Russian steppe, nor are the winters really Siberian cold (on average only -10 degrees in January and February, although there may be temperature extremes below -30 degrees). In 1942,

the city stretched over a width of up to 10 km over 60 km along the western banks of the Volga River. The western banks of the Volga are dominated by hills (the Mamayev Kurgan in particular) and numerous erosion gorges (Balkas) which the Germans called Suchaja-Metschetka-, Banny-, Todes- (Death), Lange- (Long) and Tiefe (Deep) Schlucht (gorge), while the eastern shore belongs to the lowlands of the Volga River delta already. Although the height differences are not large, the city literally watches over the river from its steep western shoreline before it flows into the Caspian basin which was one of the reasons for the foundation of a fortress and later a city there. More additional geographical factors are to be added: The Volga reaches a few km south of Stalingrad the westernmost point of its lower reaches and then turns sharply to the southeast. At about the same latitude, the Don reaches its eastern point; it is less than 100 km from Stalingrad to Kalach-on-Don.

Therefore, the area around Stalingrad was an important trade route since ancient times due to its geographical location on the isthmus between the Volga and Don Rivers. As a result of the military expansion of the Russian Empire, and especially after the conquest of the Crimea and the Kuban area in 1783, Stalingrad (Tsaritsyn) lost its strategic importance and gradually developed into a commercial and economic centre. Above all, the construction of the railway line to Kalach-on-Don in 1862 and to Gryazi in 1872 led to an economic boom and made Tsaritsyn a hub of oil supply and transport links from the Caspian Sea to the Black Sea and from the Caucasus to central Russia. As a result, large-scale industry settled here, including metal and wood processing companies, petroleum refineries for crude oil from Baku, several mills, and tanneries.

The industrial capacity of the city was considerably expanded in the context of Stalin's planned economy in the 1930s. The state-controlled industrialization of the Soviet Union at that time aimed primarily at the creation of an arms industry or industries that could easily be converted from the production of capital goods to military equipment. In the northern part of the city, along the Volga River, there were three huge industrial enterprises: the gigantic tractor plant *Felix Dzerzhinsky*, the gun factory *Barri-cades* and the metal factory *Red October*. The latter produced until the summer of 1942 about ten percent of all Soviet steel and supplied in particular the aircraft and tank production sites, but also produced rocket launchers. Incidentally, the construction of the tractor factory began in 1926, with the help of the US-company Ford. Four years later, the first tractor from local production rolled off the assembly line of the Stalingrad

tractor plant. Until the war, 300,000 tractors were delivered, especially large tractors of the type of CT3-3, which was also the platform for the T-34 tank. *Felix Dzerzhinsky* was converted entirely to weapons production even before 1941 and became the biggest producer of dreaded T-34 tanks in Soviet Union.

The Mamayev Kurgan separated the industrial heart of the city from its more urban infrastructure south of it. It included other industrial plants, an electricity plant, the central station, grain silos, meat and bread factory, cold storage, brewery, more or less drab cottages, apartment blocks and party buildings, but also the department store *Krasnaja Univermag*, schools, parks and wide avenues. Remaining images of the city convey until shortly before the start of the German bombing raids the impression of a thriving, modern industrial city with theatres, colleges and companies: the parks of the alleged green city invited the residents to linger, and photos show lovers and those seeking relaxation in the parks, and vibrant life on the streets and squares of the city. The war in the far west seemed far away to the city's inhabitants, although within a few years one of the Soviet Union's most important armament centres had been conjured up in Stalingrad.

Was this all just propaganda or fake memory? Probably yes, because in fact the allegedly stony built city at the banks of a mighty river rather consisted of several sometimes huge industrial complexes in the middle of a belt of countless wooden houses and barracks. The latter stretched along the western bank of the Volga and mingled with numerous larger and smaller industrial complexes.

How did the Volga look like? Shortly before the German attack, Victor Nekrasov describes the Volga as a river

“with greasy, petroleum-pearly waves, reminiscent of an industrial landscape. Here everything is full of serious activity. Here are rafts and barges, sooty, greyish cutters whose steel hawsers strike in the water (...) And now these broad, gleaming waters, completely covered with rafts and full of cranes and long, boring sheds, seem more like an industrial enterprise. And yet it is the Volga. You can lie face down for hours and watch the rafts swim down the river, like the naphtha puddles shimmering in all colors. And further on, his comrade Igor says after a bath in the Volga: (...) and in general, this is not a river but rather a naphtha container.”¹⁰

10 Nekrassow, Viktor (1948): In den Schützengräben von Stalingrad (In the Trenches of Stalingrad). Berlin. 78–79. In the text quoted as Victor Nekrasov, all translations by the author.

The wooden town of Stalingrad was already largely destroyed on August 23 in a day attack by the VIII Air Corps, better set on fire. Through this smouldering debris, the 6th Army moved forward to the Volga River until November 1942.¹¹ The wooden construction of most of the buildings also explains why the German bombing raids claimed so many civilian deaths and that the street fighting that started in late August was more likely to involve factories and public buildings rather than rows of houses.

More considerations contradict an idyllic picture of pre-war Stalingrad. As a modern industrial city and a highly significant armaments centre, the city must have been subjected to particularly keen surveillance by the NKVD – more about these prerequisites of Russian warfare below. Moreover, Stalin's policy of collectivization and industrialization hardly paid any attention to the central needs of man and nature. It is known from the general literature, for example, how restrictive the living conditions in the housing blocks of the Stalin era were, how poor the diet and how poor the health care. So far, it has hardly been sufficiently documented what damage to human health and the natural environment caused the forced industrialization of Stalingrad, especially by the large mining and armament factories, before they were destroyed by the German bombing raids and during the street fighting. Photos occasionally show smoking chimneys and wooden landing stages, which were used to handle critical goods such as manganese ores and especially oil. But mud and environmental damage were not photographed. In general, pollution was still described with *topoi*, which interpreted industrial contamination as a sign of industrial wear and tear, bustle and economic prosperity:

“When the pleasure boats approached the beautiful white city on the Volga (...) they also saw the smoke that rose above the three industrial giants to the sky: the tractor factory, the Red October, the Barricades. Through the blackened factory windows you could see the glowing steel pouring sparks into the pans, and you could hear a heavy roar that sounded like the surf of the sea.”¹²

4. The Creation of a Local Warscape

Let us now take a look at the tactical level of warscape. After the late summer of 1942, the pre-war city of Stalingrad could only be transfigured into

11 Keegan (2004), 33.

12 Grossmann (1946), 41.

an idyll because everything that came afterwards was even by far worse. Nonetheless, even before the Wehrmacht's direct attack, the city with its terrible living and environmental conditions was part of a regional warscape that played a significant role in the overall context of the global war. It determined the actions of those who actually had to fight and die in the war. This aspect becomes more evident when one looks more closely at the events in the first stages of the Battle of Stalingrad. The first German bombers had already attacked Stalingrad in October 1941; since the second half of July 1942 there were air raids almost daily on the city. Nekrasov describes the consequences of one of these first attacks:

“The southern part of the city is on fire, an ammunition car has also been hit, and the shells are still exploding. A woman's head was torn off. She has just left the cinema. The show just ended (...) Biting smoke that crawls in the throat, creeps out of the houses, spreads on the streets. Under the feet crumbles glass. Bricks, concrete pieces, tables, upturned cabinets. People rush, rush, bustle (...) The smoke spreads over the whole city, covering the sky, biting the eyes and scratching the throat. Long yellow tongues of fire break out of the windows, licking the walls of the corner house.”¹³

As early as the beginning of this month, district officials were preparing for a major evacuation of the city, especially for industrial production plants and their employees. First, the leaders of the Stalingrad military district were evacuated with their families to the hinterland; until mid-August they were followed by another 8,000 people from the urban upper class. According to NKVD reports, these evacuations led to considerable unrest among the population of the city, especially as in the same period the order of the People's Commissar for Defence of the USSR of July 28, 1942, Number 227 was issued (Not a step back!). The order made surrender punishable by death, ordered the establishment of firing squads behind attacking troops, and the establishment of penal companies. Since then, all able-bodied city residents, who did not already work for the armaments industry, were conscripted for entrenchment work. Persons could only be evacuated for war purposes: until the devastating air raids on August 23, these included around 50,000 injured Red Army soldiers and their medical staff as well as all children from the municipal orphanages. Despite the ever more threatening situation, the communist leadership pretended that the city could never be taken by the Germans. Even preparations for the new

13 Nekrasov (1948), 81–82.

school year continued until August 22, one day before the German city raid...

The number of losses inflicted by the devastating air raid on August 23 and the daily bombing that followed until September 13 is still a matter of dispute – a total of around 40,000 killed civilians is mentioned. Probably alone the approximately 2,000 bombing operations in the afternoon and evening hours of August 23 cost the lives of about 10,000 civilians. Therefore, a meeting of the military leadership with the local representatives of the Party, NKVD and factory leaders took place in the headquarters of General Jeremyenko that evening. With a call to Stalin, they wanted to obtain the immediate evacuation of Stalingrad's workforce and the mining of industrial production facilities. Stalin forbade not only this measure but their discussion, as only defeatism would be evoked.

This strategy was gradually abandoned with the imposition of the siege on August 25; initially only technical specialists were evacuated and workers whose factories had burned down. The mass evacuations began on August 29 with ferry boats to the eastern bank of the Volga, at a time when the ships were already in the firing range of German artillery. By September 14, the day the Germans reached the central ferry terminal around 315,000 people were evacuated, but several thousands of civilians had lost their lives during the evacuations alone. According to estimates, at this time another 300,000 civilians were still trapped in the already largely destroyed city. But for a complete evacuation of Stalingrad, it was too late with such a large population. In October it was clear that around 75,000 civilians had to stay in the ruined city. Neither the Red Army nor the Germans paid any attention to the civilian population. Many inhabitants had to live in potholes, many froze to death in the winter of 1942/1943; others died of starvation because there was no food left. Thousands more died on the deportation marches organized by the Wehrmacht after the conquest of almost the entire city. It remains a mystery how more than 10,000 civilians, including nearly a thousand children, managed to survive all hell that was let loose at Stalingrad until March 1943.

However, the operation of the important industrial installations was kept as long as possible, *Red October* produced until October 2, the last technicians of *Barricades* fled on October 5, one day after the Germans had begun their direct assault on the industrial plant. Already on August 23, the German front had moved directly to the factory premises of *Felix Dzerzhinsky*, yet the factory delivered on September 13 the last T-34 tanks. Some surviving workers were only evacuated in the following days.

Under the threat of the German attacks, the production in the industrial plants took therefore not only place under conditions of accelerating bombing war: the factories had to continue their production under direct artillery fire until they were destroyed or to be relocated. However, many workers were not evacuated at all; they had to join as militias in the struggle for the industrial ruins now serving as fortresses after the loss of production. Grossmann writes:

“Hundreds of workers, armed with submachine guns and light and heavy machine guns, moved out to the northern edge of the factory site that first night and put their lives on the hill. They fought, and next to them fought the heavy grenade launcher division of Lieutenant Sarkisjan, which was the first to bring the German tank column to a standstill. They fought, and beside them fought the flak department of Lieutenant Colonel Gerrmann, which fought the German storm bombers with half of its barrels and brought down the German tanks with the other guns in direct fire.”¹⁴

The Soviet side thus blurred the separation of combatants and non-combatants established by the Hague Convention – but it is also questionable whether the German side differed in its murderous warfare. Anyway, the Soviets waged a total war in which all resources were used to stop the enemy. Even destroyed civil and industrial infrastructure played a major role in this.

From the very beginning of the battle, Soviet warfare dealt with its own resources mercilessly and prepared a warscape which's inhumanity was simply unbearable. Another outcome of this incredible brutality, which hardly differed from German warfare, was the way in which the evacuations of the civilian population were carried out. It is difficult to say whether the Stalinist leadership was indifferent to the populace, whether its suffering should be functionalized for propaganda purposes and to motivate the Red Army, whether the surviving civilian population was scheduled for military tasks, or whether the evacuations were simply too late and des-organized. Considering the intensity with which the NKVD supervised evacuations, one has the impression that the suffering of the civilian population was not simply ignored by the Soviet side, but wilfully increased – Stalingrad was thus made a place, behind which there was no retreat. And this, in fact, corresponded to the enormous importance that the battle there had for the entire course of the war from the perspective of the Soviet leaders.

14 Grossman, Wassilij (1946): Stalingrad. Berlin. 43.

From July 12, the Stavka began preparing for the defence of Stalingrad. For this purpose, until August 19, when the 6th Army had reached its starting point for the attack on the city, a makeshift defensive belt was built, as strong as those created in the fall and early winter off Leningrad and Moscow. However, the 62nd and 64th Armies which had been ordered to defend the city had to give up the defence belt against the advancing Germans step by step until September 14. This started the fierce fighting in a landscape of hilly and rugged terrain. Littered in it were the smoking remains of the wooden barracks, as well as the ruins of the iron, concrete and steel structures that made up the former factories and public buildings of Stalingrad. This started a fierce battle for houses, workshops, water towers, walls, cellars, floors, and piles of rubble that had not even existed on the Western Front during the First World War.

This battle had been planned by the Stavka, for on the day of the German attack, September 13, Zhukov and Vasilevsky had had a talk with Stalin in the Kremlin. The two Soviet military leaders sketched a bold plan, which envisaged the encirclement of German troops on the Volga and the destruction of the 6th Army in the interior of the city. This plan was accepted by Stalin on condition that he added that the city should not be conquered in any way. Therefore, it was Stavka's declared goal to permanently tie the German offensive forces in the *city* into loss-making struggles and to prepare in the background Operation Uranus, a large-scale counter-offensive in the entire southern front arc of the Don. The 62nd Army was commanded to defending the city at any cost, and began transforming the ruins into a fortress. In the Soviet defensive line, strategically important buildings and complexes formed defensive support bases, which were linked by trenches. Already bombed buildings could hardly be further destroyed and were defended by platoons, companies or battalions in all-round defence. Each soldier was equipped with anti-tank handguns whenever possible, usually tank shells or fire bottles. The infantry platoons were mixed with other branches of service, snipers, pioneers, and paramedics. Several bases formed a defensive knot. The ideal defence points were factory halls, especially massive steel and concrete complexes with deep basements. Only in the course of the battle, the sewer system of Stalingrad was discovered as a preferred staging area for rapid thrusts into the depths of the opposing lines. On large streets and squares, the fire points were arranged in a checkerboard pattern to combat German infantrymen with different fire areas. General Chuikov ordered his forces to remain in close physical proximity to the German front line, to neutralize

air strikes of the enemy and to engage him in close combat with as many casualties as possible.

How did the German side contribute to the creation of this battlefield? The attack on Stalingrad was undertaken by the 6th Army, a field army which consisted in November 1942 of four army corps, a tank corps and subordinate Romanian, Italian and Croatian troops. This 6th Army was considered one of the elite formations of the Wehrmacht. But the soldiers had been trained for mobile and not for trench warfare; the armament was designed for fast mobile warfare in summer conditions too. Both should later contribute to the high casualties of the Germans in the *rat war* to be described below. The 6th Army had achieved numerous military successes until the attack on Stalingrad; first in the war against France, and later in the context of the operations of Army Group South. In the Case Blue operation, the army attacked from Ukraine into the direction of the Don River. As a result, the army fought the battle of encirclement and annihilation at Kalach-on-Don and then advanced to Stalingrad.

Since the Barbarossa Case, the 6th Army has been heavily involved in German war crimes and genocide in the European East. It is well-known that the leadership of the Nazi Reich requested their troops through orders to do so. Antony Beevor¹⁵ describes in great detail the criminal track left by the 6th Army on its southeast thrust: mass shootings of Jews, Gypsies, political officials, actual or supposed partisans, prisoners of war and their systematic assassination in camps, looting, rape and burning of entire villages as so-called retaliatory measures. The plundering condemned thousands of civilians to starvation and did not always happen on the orders of the officers: the supply situation of the German soldiers became difficult already in late 1941, and the military discipline was by no means guaranteed.

The fighting for the city of Stalingrad began with the German major offensive on September 13. The advance of the German troops was determined by the special topography of Stalingrad. The ridge in the west of the city and the deep ravines that led to the Volga prevented the broad deployment of motorized formations. Therefore, Stalingrad could be only attacked via three routes, along the Mokraia Metschetka and Elschenka rivers, or along the Tatar ramparts. At the beginning of the fighting, when the German side had a great superiority to humans and material, the troops

15 Beevor (2010), 73ff.

were still stationed west of Stalingrad, especially in the protection of numerous erosion canyons there. From there infantry and tanks were driven to their missions. After the missions, where it was often unclear to the soldiers what was to be fired on, for example, the tanks drove back about 20 to 30 km to the army ordnance sites to collect ammunition.¹⁶

Unlike in other battles successfully fought by the Wehrmacht, encirclement was impossible due to the topographic situation of the city at the banks of the Volga. This was one of the main reasons why the 6th Army had to carry out costly frontal attacks with high losses against tactically important buildings and landmarks. Therefore, the city was systematically divided by the Army High Command (AOK) into grid squares, to which different tactical meaning was assigned. This strategy of the Germans was quickly recognized by the Russian infantry, by watching where the first stukas flew in the early morning:

“The moment we have rubbed our eyes, we crawl out of our shelters, coughing from the first morning cigarette, and with narrowed eyes we follow the first ten. They determine the whole day, through which we learn what the square is, where the German timetable today will make shake the earth like brawn, where the sun will not be seen through smoke and dust, in which section you will bury the dead all night, repair damaged machine guns and cannons, dig new trenches and shelters. When the chain flies over us, we breathe a sigh of relief, throw off our shirts and pour water on our hands from the billy-can.”¹⁷

The plan was to break out, isolate and combat separate sectors of the Soviet counter-defensive sector, as it proved impossible to cut off the city from supply from the eastern Volga banks or even to destroy by bombing or artillery fire the positions of the Red Army at the western shoreline of the river. There, the Russians had dug shafts and bunkers in the steep slope on the Volga. However, in four stages of attack from September 13 until to October 31, the Wehrmacht succeeded in conquering almost the entire city but the western shoreline of the Volga. Phase 4, Operation Hubertus, which took place between 9 and 12 November to occupy the rest of the city, was already a failure, but led to perhaps the most horrific fighting so far:

16 Fritz Schreiber. In: Schüddekopf, Carl (2004): *Im Kessel. Erzählen von Stalingrad.* München. 50.

17 Nekrassow (1948), 136.

“We then left the Red Square and came just very close to Volga. There the Russians were with the river in the back. Now we were so close together, Russian and German soldiers, that we started treating each other with spades. We were to occupy the strip of land that was still between us and the Volga. The officers said: This is an order of the Führer! It was a big bloody carnage, but the Russians did not go away (...) And then it was said that we, the artillery, are pulling back. We escaped from the large Sichtotschlagen (beat to death). Back to Zybenko, thirty kilometers southwest of Stalingrad in the Kalmuck Steppe.”¹⁸

5. *Rat War – a New Warscape*

The course of the battle can be divided into three major phases. During the first phase, the 6th Army tried to conquer Stalingrad. After capturing approximately 90 percent of its territory and a phase of extremely high losses on the Soviet side, in particular, the situation turned in favour of the Red Army, even before the large encircling operation *Uranus* took place, which marks the beginning of the second phase. After Hitler’s ban on attempting an outbreak on November 24, the army proceeded to a defensive strategy, expecting a rupture of the siege from the outside. Since Operation *Wintergewitter* failed on December 23 finally, the trapped German army was increasingly compressed into the ruins of the former urban and industrial areas. November 24 could be regarded as the beginning of the third phase, because from this day on the supply shortages of the German troops became obvious: at that time the food rations of the soldiers were reduced by 50 percent. Due to exhaustion, ammunition and other shortcomings in materials, an effective defense could no longer be opposed to the reinforcing Russian attacks. However, most of the encircled Axis soldiers did not die as a result of hostilities, but to malnutrition and hypothermia.

Since the German attacks in September 1942, the Battle of Stalingrad developed more and more from significant operations involving thousands of soldiers and heavy weapons into a fierce house-to-house fighting (better ruin-to-ruin fighting), which was characterized by sniper fire and bloody close combat. This type of violence was later referred to as *rat war* which came from the fact that the battle was often fought for the appropriation of insignificant foxholes and basements. In the following, this development

18 Bertold König. In: Schüddekopf (2004), 146–147.

will be presented in two examples, first at the famous deployment of the 13th Guards Rifle Division under Alexander Rodimzev.

By the afternoon of September 14, it looked as if the 6th Army would succeed in conquering downtown Stalingrad. The primary objective was to conquer the main ferry landing, cutting off the 62nd Army from supplies. German troops fought their way up to 100 meters to the Volga and the ferry terminal. As a result of the fact that even the *house of the specialists* went over to the Germans, the ferry dock came within the reach of German heavy machine guns. Chuikov therefore mobilized his last reserves to save Stalingrad from a rapid conquest by the Wehrmacht. At this time, only about 1,500 men defended Stalingrad center. Meanwhile, on the other side of the Volga, the 13th Guards Rifle Division was on standby, which had been taken there in forced marches. The Guards Division had over 10,000 soldiers hastily armed with ammunition, grenades and some machine guns and food on the banks of the Volga River on the afternoon of September 14. After his conference with Chuikov on the western Volga bank did not wait with embarkation until it was completely dark. Because of the many fires, it was never dark during the first weeks of the war in Stalingrad. A good picture of the city, as the soldiers had to see it when crossing the river, Nekrasov:

“The city is burning. Not just the city, but the whole bank in all its length. As far as the eye can see. This cannot be called a conflagration anymore, that’s more than that. (...) A purple sky, covered with clenched clouds of smoke. The dark silhouette of the burning city is as sawed out as with a fretsaw. Black and red. There are no other colours here. Even the Volga is red – like blood, it twitches in my head. Flames are barely visible. Only at one point downstream are small jumping tongues. And opposite us, as from paper, crushed cylinders of oil containers, collapsed, crushed by the gas. Flames spew out of them – powerful prominences that tear themselves away and lose themselves in the heavy, slowly forming, fantastically looking grey-red smoke clouds.”¹⁹

In the evening twilight, the first guardsmen began to sail across the Volga: in gunboats, but especially in civilian vehicles such as tugboats, fishing boats and even rowboats. At first, the soldiers only heard distant gunfire and exploding shells. Then the Germans spotted the flotilla and put it under fire with artillery, grenade launchers and heavy machine guns. Finally, first boats were hit. The closer the ships came to the western shore, the

19 Nekrasov (1948), 111–112.

more dreadful it became for the soldiers. Large fires and dark clouds of smoke became even more terrifying, Stalingrad was already in September 1942 a mess of rubble and fire, from which large columns of black oily smoke from the burning oil tanks climbed up to 3,000 m, as the German air reconnaissance and bomber fleet had to realize too. The ferry landing was littered with burned machines and ships thrown to the shore. The stench of charred buildings and decaying corpses stuck in their noses. The first wave of the soldiers of Rodimzev fell over the edges of the boats into the shallow water and hurried as fast as possible up the steep, sandy shore and attacked immediately.

Already the first wave of the 13th Guards Rifle Division came in merciless close combat on the central station and a large mill made of red brick. The second wave, which was disembarked some time later, even advanced to the Mamayev kurgan. On September 16, the troops of Rodimzev attacked the hill directly, which was soon covered with countless fragments of shrapnel, bombs, shells and explosive craters. This hill was of particular importance for the battle at Stalingrad, as from there artillery could take the Volga from one bank to the other under fire. The hill changed hands several times and thousands of soldiers died during these battles. They lay unburied in the churning earth of the hill, were whirled up by grenades and were buried again in the endless hail of shells.

The 13th Guards regiment suffered losses of 30 percent in the first 24 hours of its mission, but this operation succeeded in securing the riverbank, which proved to be crucial in resisting the Germans until *operation Uranus*. Overall, only 320 of the 10,000 soldiers deployed in this division survived the Battle of Stalingrad.

But large-scale attacks such as those on the Mamayev hill or the tractor factory were an exception, as even the German blitzkrieg tactics failed in Stalingrad increasingly. It had been based on the concentration of firepower on narrowly limited front sections, with coordinated cooperation of artillery, infantry, air force and motorized units. These tactics simply didn't succeed in the ruins, into which the Wehrmacht had been lured by the plans of Chukov and Chuikov. In addition, the 6th Army soon suffered from material shortage and wear. Therefore, the struggle for Stalingrad turned into a particularly brutal variant of that war, which had been fought since 1916 on the then Western Front already.

On the tactical maps the units of both sides appeared as contiguous divisions, brigades and regiments, and a structured battle over greater distance may have been existed still in the first days of the German assault.

During this phase of the attack, each German infantry company was assigned three to four tanks. However, this tactic was quickly doomed to failure, as the tracked vehicles were ambushed and fought there with armour-piercing weapons. The tanks could not fight snipers from the higher floors of a building. In particular, during the defensive measures in the industrial district, the Red Army created so-called *death zones*, heavily mined streets and squares, in whose vicinity soldiers were stationed with armour-piercing weapons to destroy German invaders in an ambush.

For this purpose, the troops of Chuikov had created so-called breakwaters to channel the force of German attacks. Fortified buildings, which were manned by infantry with antitank weapons and machine guns, were to divert the attackers into *channels* where armor-piercing weapons and buried T-34 tanks awaited them. These *channeled attack routes* were also mined by anti-tank mines. After a couple of days with these terrible onslaughts, only small units, shock troops and groups of a maximum of 50 soldiers operated on both sides. Since then, a major part of the fighting has not consisted of major attacks, but of incessant, small, deadly battles. The Germans used in particular so-called *Sturmkeile*, attack platoons of about 10 men who stormed with machine guns, light mortars and flame guns bunkers, cellars and sewers. The Russian attack troops included about 6 to 8 men who were equipped with submachine guns and hand grenades and who supplied themselves with additional knives and sharpened spades, in order to kill as quietly as possible after nightfall. The 62nd Army resorted more and more to these nocturnal attacks, on the one hand because they were convinced that German soldiers were more afraid at night, and on the other hand to force the Germans to shoot at night for anything that moved. The troops of Chuikov maintained the tension in the battle permanently, in order to tire the Germans and to force them at the same time to high ammunition consumption. This could not be compensated under the logistical conditions of the Russian war and in particular not after the encirclement of the 6th Army in November. Above all, the Red Army assembled their small mobile combat units of soldiers with different ethnic background and weapons. If a building, a foxhole or a basement was conquered by the Wehrmacht and some defenders escaped, they could easily join a neighbouring unit.

Both parties to the conflict experienced an almost *nightmarish environment* in the Battle of Stalingrad. The melee in ruins, bunkers, cellars and canals were called by the German soldiers soon *rat war*. This related, on the one hand, to the complexity of the battlefield. Danger came in Stalin-

grad from all sides, frontally, laterally, in the back, from the sewers, above floors and from the top floors, where snipers had taken cover.

“The next morning, as it became light, the Russian snipers began to shoot. They lay in the big houses in front of us, in the upper floors. And from there they could target us. One by one they killed. Who lay so that they could see him, there was scarcely any rescue for him. Those who were able to be small enough, lying on their tummy until evening, peed under themselves, pulled the canvas over their heads, so that they did not see us.”²⁰

In addition, the sky had to be constantly monitored: When the respective air forces attacked, both German and Soviet soldiers had to throw themselves to the ground. On the other hand, the fighting took place mainly in an industrial landscape that had already been destroyed by Stalinist industrialization. The battle was fought for fuel tanks, tank, ammunition and metallurgical factories, which had by no means handled large quantities of toxic substances carefully even before the fighting broke out. Nekrasov, for example, describes a battle in a loading station, where tanks and freight cars were still filled with petroleum:

“Some bullets strike the tank car, just above my head, a thin bent jet of petroleum pouring on the rails in front of me, and I feel on the face splashes like from an atomizer.”²¹

The fighting does not only set fire to wooden parts, but also gasoline, oil and other toxic substances. The heavy fires that erupted, especially at the beginning of the battle, burned in the soldiers' eyes and respiratory tracts and covered their unprotected body parts with a layer of smear and dust. Through the dust and soot of the collapsed and burning buildings, the soldiers were hardly distinguishable from each other externally, so that it came especially in close combat to fatal confusion between friend and foe. The fires submerged the city in a ghastly dim light, which was further darkened by the wandering dust clouds, especially as the impacts in still standing parts of buildings caused veritable clouds of dust, stones, and shrapnel. The conflagrations consumed so much oxygen that sometimes the officers of the command posts, which were housed in bunkers, fainted. During daytime the battle zones were filled with a terrible noise that further shattered the combatants' nerves: the howling of Stukas, thunder of flak and artillery, the clank of tank tracks, the shrieking of Stalin organs,

20 Hans Horn. In: Schüddekopf (2004), 114.

21 Nekrassow (1948), 118.

the rattling of MGs. The soldiers found the cries of the wounded and dying particularly distressing.

During the sudden nightfall typical of the southern Russian region, the German air and artillery attacks were largely halted, but the cries of the wounded continued, and unfamiliar nocturnal noises and the permanent threat of snipers made sleeping impossible for the soldiers. Indeed, the Battle of Stalingrad could not have been anything more different from the *deep war* which took place before and after it in Europe's east. It was a new kind of warfare which was fought in the ruins of human civilization, in the debris of industrial plants and houses. The rubble of war mingled with the remnants of civilian life and industrial production and the fighting very soon surpassed the horror of the battles of attrition which were fought in the trenches of the First World War.

Despite even contemporary theoreticians had criticized trench war as a military aberration, Stalingrad brought it to its extremes: the specific war environment of the debris landscape Stalingrad and the much more extreme climatic conditions made the fighting in Stalingrad even more terrible than the butcheries at Verdun or at the Somme. The destroyed civil and industrial infra structure played a major role in this. Grossmann writes:

“The people learned to keep large houses in the shelter of a barrage fire that was emitted from the ground floor to the fourth floor, they set up amazingly camouflaged observation stands right in front of their opponents' noses and used the funnels of heavy bombs and the whole intricate system of underground gas, oil and water pipes of the factory for defense.”²²

The terrible living conditions of the soldiers contributed to this. They had to continue fighting without detachment on both sides, such as the appalling conditions of nutrition, drinking water, health care, shelter, and clothing, and the merciless disciplinary methods by which the soldiers were forced into the fight. In the first weeks of the battle, the Russian troops suffered considerably more than the Germans. They were shipped directly into battle from the eastern bank of the Volga River, and the survivors of this transport were often cut off in their foxholes or sewer pipes for days until they were killed or could move to other positions. They had to endure dust, smoke, hunger and – worst of all – thirst because in the combat area there was no drinking water since the pumping station was

22 Grossman, Wassilij (1946): Stalingrad. Berlin. 59.

destroyed in August. In particular, the wounded and dying, in addition to their pain, must have suffered from a terrible thirst:

“One has a belly shot – he must not drink anything. All the time he beseeches and begs: Just a drop, Comrade Lieutenant, just a drop, that mouth is so dry ... and looks at you with such eyes that you would like to sink into the ground. Also the machine guns want to drink (...) Where to get water from? If we do not have water, the machine guns fall silent tomorrow, and that means ...”²³

The supply of makhorka tobacco and alcohol was perceived as insufficient. The daily ration of vodka was officially 100g a day, but the Russian soldiers, when they came to the winning side, probably drank up to a litre a day. Especially recently, the use of stimulants such as pervitine has become better known in research.

Many wounded soldiers were rescued by the courageous and self-sacrificing female paramedics, who were members of the platoons and often also directly involved in the fighting. Despite their efforts, the rescue was often in vain, because the medical treatment of the Soviet wounded was horrible: they were carried to the western banks of the Volga River, and left there untreated, until the supply boats at night returned to the eastern shore. Dumped there, they were often left to their fate, and even if they reached the field hospitals that were set up about 10 km from the combat zone which did not mean that they had a chance to survive. The whole organization of the Russian army at Stalingrad was more geared to bringing fresh forces to the battle. Wounded soldiers were a neglected factor, more important was the replenishment of war victims, who had to march under NKVD guard to the landings on the east bank and were treated during river crossing basically like guarded prisoners. When soldiers panicked, they were shot on the boats; if they jumped into the river to save their lives, they were shot too. The Soviet military leadership also tried to make it impossible for the soldiers on the actual battlefield to desert or surrender. Therefore, so-called lock groups were set up behind units of low morale: well-armed Komsomol or NKVD units armed with heavy machine guns were positioned especially behind militia who had been ordered to attack. If necessary, they opened fire on soldiers who collapsed under stress. They were thus forced to flee in the direction of the enemy, who also mowed

23 Nekrassow (1948), 209. The barrels of Russian machine guns were cooled with water.

them down with machine guns. The soldiers had only the choice to be shot by the Germans or the Russians.

The Russian civilian population was by no means treated better by their compatriots. During the battles on the settlement of the *Barricades*' workers, the Germans observed that Russian women who wanted to rescue themselves behind the German positions were mowed down by Soviet troops with machine guns mercilessly. Especially at the beginning of the fighting, thousands of civilians, unless they were evacuated or drafted into the Soviet militia had to persevere in the city. All reports indicate that the debris landscape was still teeming with life at this time. Old people, children, and women sought shelter in cellars, sewers, and caves dug into the steep river bank and ravines. The openings of these caves were covered with charred planks and rags. Even at the height of the battles for the Mameyev Kurgan, civilians are said to have taken cover in shell funnels. Since the Russian civilian population did not receive food rations, it was dependent on the almost impossible self-supply of drinking water and food. Children proved to be particularly successful. However, they were also fired upon by the Germans when they tried to steal army food, the Russians open fire upon them, when they allowed themselves to be harassed by the Germans to provide drinking water for example. Persons used by the Germans to transport corpses and wounded were shot by the Soviet soldiers too. Stalin had ordered to execute every Soviet citizen who followed German orders, even if he acted under duress. Just as mercilessly, military discipline was enforced: probably about 13,500 Russian soldiers were executed in Stalingrad according to military law or judgments of court-martial.

In the first weeks of the battle, this was conducted asymmetrically, i.e. well-equipped German troops tried to crush Russian soldiers hiding in ruins. The resistance of the Soviet side was based on house-to-house fighting and guerrilla tactics. As a result of Chuikov's *embrace* of German troops, the strategy to force them into close-quarters combat with high losses, the 6th Army finally had to fight under the same conditions. Hans Horn tells about it:

“We got into a bomb crater, big as a room, but deeper. There were a couple of loopholes at the top, and below was a heel on the flank where you could walk. The Russians were thirty yards away. Between us only bomb and grenade craters. A hundred yards behind us lay the houses, or what was left of them. And then it started to rain, day after day. The water gathered at the bottom of the funnel and you had no dry thread on your body. There was hardly anything to eat, you could not sleep, maybe doze once. For more than a week we

were sitting in this hole. The artillery fired on both sides, but it did not benefit anyone. Dangerous was the rifle fire and many grenade attacks that we could hardly repel.”²⁴

This changed with the operation Uranus: The 6th Army was encircled by the Soviet Union in a large forced movement. At first the Soviet army suffered from supply problems, but at the latest with the encirclement of the Germans this asymmetry had been overcome. The German side suffered increasingly from supply shortages, a situation that could lead to tragicomic situations. Bertold König narrates:

“One of us went to get some food. And he came and did not come back when we were about to go looking, when he appeared, very pale and shuddering from top to bottom. He had been queuing at the wrong field kitchen, the one on the Russians. They had a field kitchen with a diesel truck (Einheitsdiesel) from us captured and thus fed their people. He was done for, but he came with our rations from the Russians. He had not been recognized in the darkness.”²⁵

The first replenishment problems for the Germans had already been evident since October 1942, but the supply had finally stopped weeks before the German capitulation in early February 1943. A major problem for the German side was that Hitler had personally banned the breakout of the encircled troops: With the loss of the city, all those operational objectives which the German side in the south-east had achieved until then had to be given up. Although this was a strategically comprehensible decision, at the same time it brought the enclosed 6th Army into an extremely difficult situation. For the planned supply of the Germans over an airlift proved not feasible. Worse still for the German soldiers: The Soviet troops finally succeeded in completely stopping the supply from the air and also repulsing the German replacement attempts. As a result, the 6th Army was doomed. In the two to three months which, surprisingly enough, the 6th Army was to endure in the ruins of the city and industrial district of Stalingrad, an alignment took place with those Russian troops who had opposed them during the first weeks of the battle. The advancing Russian units were repulsed with significant losses, with ruthless disciplinary measures and improvised combat tactics, and finally no more. In addition, the mass murder continued: of surviving Russian civilians and finally also of *Hilfswilligen*, a military auxiliary unit which the Germans had enlisted in Eastern Europe.

24 Hans Horn. In: Schüddekopf (2004), 116–117.

25 Bertold König. In: Schüddekopf (2004), 146.

On December 23, 1942, *winter thunderstorm* finally failed, at the latest since the 6th Army could only wait for the final attack of the Russian troops. It began on January 10, 1943, with Operation Kolzo, during which the Soviets advanced slowly from the west to the encircled German troops. Since on 16 and 22 January 1943, the two airfields Pitomnik and Gumrak had been conquered by the Soviet troops the Germans could only capitulate. The fighting was stopped on February 2, but soldiers stranded in ruins were probably hiding or trying to make their way west until the beginning of March.

Until the capitulation, or better until the mass of German troops was captured by the Russians, the Germans, their allies and *Hiwis* were exposed to an increasing process of exhaustion, distress, impoverishment, and disillusionment. Their warscape now often consisted of a shelter in some part of the ruins, which had been covered with boards or rags, or a cellar hole. These shelters were often unheated despite the cold winter weather, and heat could be created only by the men crowding under tarpaulins and blankets. There they were plagued by fleas, lice and even by mice, which had multiplied enormously because of the everywhere lying corpses and cadavers. Bertold König narrates:

“One was more and more dulled. The many dead did not seem to mind anymore. In Zybenko I slept one night in a bunker. There they all stood, it was so narrow, none could fall over, not even those who had already died. There were also people with frostbite and that stinks beastly. So I climbed out of the bunker through an opening and came to a pile and fell in, between amputated arms and legs. There used to be a field hospital. Because it was too much of kicking the bucket everywhere, you just took it.”²⁶

In addition to the cold the soldiers suffered from hunger or even starvation, because from December on German soldiers mostly were fed with a barren bread ration and some water soup, in which horsemeat had been cooked. Cold and hunger caused the soldiers to lose weight and suffer the effects of malnutrition. Their skin turned yellowish, they were down to the bone. The intellectual activity was increasingly impaired, it was hardly possible to concentrate mentally. The lack of water and food also led to apathy or euphoric hallucinations – and to suicides, violence, mental breakdown and disease. Many wounds were left untreated and especially infectious diseases such as typhoid spread. Self-mutilation and suicides in-

26 Bertold König. In: Schüddekopf (2004), 152–153.

creased. As early as the beginning of January, a growing number of German soldiers surrendered without resistance or ran over to the enemy. Besides, military leadership and discipline collapsed more and more. Since then, the German soldiers joined rather randomly fighting units, it came to the murder of officers and military police and finally the German soldiers only fought to the bare survival.

7. *Warscape after the Fighting*

After several months of terrible fighting, the city and industrial facilities of Stalingrad were completely destroyed. After the end of the battle, which was not the end of all fighting, Stalingrad (or better, what it was) was nothing but a landscape of rubble and metal parts interspersed with countless human corpses. Only winter prevented an unbearable smell of decay spreading over the city. Everywhere there were frozen bodies, it had hardly been possible to bury the many dead. Fallen soldiers were often simply left lying or put in trenches; mostly half-naked, without pants and jackets, wrapped with paper bandages, because the survivors took all useful possessions of the fallen. Earth burials proved to be almost impossible, especially after the onset of winter in frozen soil. If anything, dead people were buried in holes and temporarily covered. The carcasses of around 54,000 Wehrmacht horses were also lying around in ruins but they continued to serve as food for all those involved in the battle. After the surrender, initially, around 3,500 Russian civilians were used as gravediggers. German dead were brought into bunkers or armored ditches and buried there. Later, about 1,200 German prisoners of war were used for this, almost all of whom died of typhus or were shot dead by the Russian guards. Decades later, bodies were found.

Despite knowing that the German troops could not fight any further, no precautions had been taken to guard or even supply them. The treatment of prisoners of war mixed brutality, indifference and revenge. German prisoners tried to survive by chewing raw horse meat and eating pussy-willow. Most German soldiers probably died already on the way to the prison camps. In addition, the Soviet soldiers and civilians themselves suffered terrible supply shortages. But it would be a mistake to believe that after the capitulation of the larger German units *peace* came or at least an orderly capture according to the rules of the Geneva Convention. Rather, it was that the orgy of violence continued unabated. It came to looting, torture

and incredible scenes of mass murder after the capture. Johann Scheins narrates the incidents after the German surrender:

“We did not know how long we walked with sixty thousand men. We stopped because we could not stand anymore, and then there were some lying, they were dead (...) The Russians, the officers, said: Hitler kaputt, you kaputt. And then tanks came out, they drove over us, slowly, who were standing there became like broken egg. There were commissioners on the tanks, not Russian officers. Big guys with blue caps and red ties. With carbines stood on the tanks. Hitler kaputt, you kaputt. So they drove over the people and with the pistons from the carabiner, they smash the heads of those who were tall.”²⁷

There has to be mentioned another factor too: While the German soldiers were driven to death by thousands by their Russian guards, the Red Army advanced to the Don river to take advantage of the victory on the Volga for an even greater strategic goal – after the defeat at the Battle of Stalingrad, the entire southern German eastern front was threatened with collapse. Such an event would have been many times more dramatic for the Germans and would have led to the collapse of Hitler’s armies on the eastern front. The third battle for Kharkov took place already in February and March 1943. In the course of the Voronezh-Kharkov operation, the Red Army was able to temporarily take over the city Kharkov. Field Marshal Erich von Manstein, however, managed to stabilize the southern flank and retake the city with a strategic maneuver that is often compared to a castling. This was the last significant success of the Wehrmacht in the war against the Soviet Union. The victory delayed the collapse of the German eastern front by more than a year and was a heavy defeat of the Russians, which, however, was not considered by the Soviet propaganda with a word.

Towards the end of the war, the ruins were almost deserted, as the former residents would not be allowed to return until the duds were removed. Only a few people survived in ruins, in a city that was completely marked by death and destruction and an incredible history of violence which was never commemorated officially. What took place instead was that the Soviet propaganda took the battle already in early 1943 as an opportunity to reinterpret all the mistakes made so far by party, government, and military and to invent the myth of the victorious Russian heroic people. The party claimed the spirit of Stalingrad for itself. In this way, the battles there depicted fraternity and selflessness as the result of the party’s leadership and

27 Johann Scheins. In: Schüddekopf (2004), 208–209.

ideology. Although it is known that the daily routine of the war looked different, soon after the end of the war the official propaganda overwhelmed more and more the individual memory. This created in Stalingrad the space for a warscape after the war, which had to be built soon after 1945 by thousands of camp prisoners and German POWs: It was characterized by even larger industries, which were placed on the banks of the Volga without any environmental concerns, Stalinist socialist classicism and oversized memorials, such as Motherland Calls, an 85 m high statue with the weight of 7,900 t, without counting the concrete foundation. Especially in the Brezhnev era, the shadow of a horrible war reality was re-written through the narrative of collective splendor.²⁸ The most important difference today, that is, for now, three decades after the collapse of the Soviet Union, meanwhile the collective memory is also operated by numerous ecclesiastical elements. This is in clear contrast to the atheism that characterized the party, army and people of the Soviet Union in the Great Patriotic War.

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28 Merridale (2006), 404ff.

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Transgenerational War-Related Trauma in Post-War Germany: Evaluation of Results and Research Perspectives

Martin Dinges

1. Introduction and Statement of Problem

When a war comes to an end, societies commemorate the dead and focus on the wounded. In Vietnam, the victims of Agent Orange have been given particular consideration. This conference is mainly about the environmental destruction that was carried to an extreme in the *American War*. War-related psychological disorders are less obvious than physical injuries and environmental damage and are therefore discussed less frequently. This is even more so with the psychological damage that may manifest as long-term trauma. Today, forty years after what we call the *Vietnam War*, I would like to address this issue. The German experience which now, 70 years after the end of the Second World War, goes back one generation further, can lead us to reflect on many aspects in Vietnam that have so far not been scrutinized by the historians.¹ I would be very interested to hear more about Vietnamese research on this question.

Dealing with the psychological effect of war is important in two respects: for the individuals and families affected and for society as a whole.

1 This shows that there has been fruitful cooperation between historians and psychologists in dealing with their own country's history. On psychiatric war trauma in Vietnamese people I have only found two publications in languages that are accessible to me. One is the government publication, Lê Thi (Duống Thi Thoa) (2005): *Single Women in Vietnam*. Hanoi. And the other is a French article by Guillemot, François (2014): *Des jeunes filles mutilées*. In: Guillemot, François/Larcher-Goscha, Agathe (eds.): *La colonisation des corps: de l'Indochine au Viet Nam*. Paris. P. 343–392. A differentiated account on soldiers' motivation for fighting is presented by Guillemot, François (2012): *Be Men! Fighting and Dying for the State of Vietnam (1951–1954)*. In: *War & Society* 31, 2. 184–210. 196. For war accounts of the generation of heroic Vietnam fighters of the period preceding 1968 cf.: *Circulating War Memories: The Diary of Ang Thùy Trâm*, in: *Journal of Vietnamese Studies* 3, 2. 172–179; Lam, Mariam B. (not yet published): *Not coming to terms: Archival Trauma and Strategic Effect*. Durham.

The urge to justify or even glorify war as well as the wish of simply forgetting its horrors, on the other hand, often lead to repression. Individual and collective denial can reinforce each other.² What we repress finds its way into our daily lives in roundabout ways, however, and can become a burden for individuals as well as for society.³

I would like to make one important point at the beginning in order to avoid misunderstanding: The Vietnamese War of Liberation was of course a totally different conflict from the racist and offensive war waged by the Germans. I will therefore not dwell on the aspect of the extermination of the Jews (the Holocaust) despite the fact that the research into the processing of that specific trauma was very important – heuristically and historically – for the victims of the Holocaust (and, later, even for the perpetrators themselves).⁴

My main concern here is with the general war damage caused by shelling, bombing, displacement and forced migration, the loss of parents, partners and other close relatives, by people becoming brutalized through actively participating in the war, by the shootings and deprivation that are an inevitable part of any war, however lofty the moral ideals that led to it in the first place.

2 Regarding the spirit cult as one of the reasons why the commemoration of the war dead cannot be suppressed in Vietnam Margara, Andreas (2012): *Der Amerikanische Krieg. Erinnerungskultur in Vietnam*. Berlin. 91. Rudolf, Gerd (2009): *Kriegskinder und Persönlichkeitsstruktur*. In: Radebold, Hartmut/Heuft, Gereon/Fooken, Insa (eds.): *Kindheiten im Zweiten Weltkrieg*. Weinheim. 83–91. 89.

3 This is of course also true for the repressed history of the war in South Vietnam which is still not publically commemorated.

4 Basic reading: Bergmann, M.S./Jucovy, M.E. (eds.) (1982): *Generations of the Holocaust*. New York. An up-to-date overview: Wiegand-Grefe, Silke/Möller, Birgit (2013): *Kriegskindheit im Hamburger Feuersturm und ihre Folgen. Eine theoretische Einführung in die Perspektiven der Enkel und Familien*. In: Lamparter, Ulrich/Wiegand-Grefe, Silke/Wierling, Dorothee (eds.): *Zeitzeugen des Hamburger Feuersturms 1943 und ihre Familien: Forschungsprojekt zur Weitergabe von Kriegserfahrungen*. Göttingen. 295–306. 296f. Bohleber, Werner (2000): *Die Entwicklung der Traumatheorie in der Psychoanalyse*. In: *Psyche. Zeitschrift für Psychoanalyse und ihre Anwendungen* 54. 797–839, particularly 810ff., 815, 817. <http://gsp.yale.edu/resources/bibliographies/holocaust-bibliography>.

2. *When Do Traumatizing War Memories Affect Individuals or the Society – or: the Transgenerational Effect of Memory*

It is not true, however, that the psychological effects of a war are not spoken of, too, after a war. There are those who lie sleepless as a result of the air raids they witnessed. Others start up from their sleep in the middle of the night because of the violence they experienced; there are soldiers who return from the war unable to resume their ordinary lives again: they start drinking or become violent.⁵ Bao Ninh's novel is about this. That this novel has been so hugely successful points to the wider societal need for reflection in Vietnam, too.⁶ The immense individual suffering in Germany after 1945 – and it was probably the same in Vietnam after 1975 – was endured and partly worked through within the family; in isolation, as it were.⁷

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- 5 Goltermann, Svenja (2009): *Die Gesellschaft der Überlebenden: Deutsche Kriegsheimkehrer und ihre Gewalterfahrungen im Zweiten Weltkrieg*. München. 130–162 [engl edition: *War in Their Minds: German War Veterans and Their Experiences of Violence in the Second World War*. Michigan UP.]. For a concrete example cf. Meyer-Madaus, Amelie/Wiegand-Greife, Silke (2013): Familien über drei Generationen im Familieninterview. Ein Fallbeispiel. In: Lamparter/Wiegand-Greife/Wierling (2013), 320–335. 332. Müller-Hohagen, Jürgen (2005): Verleugnet, verdrängt, verschwiegen. Seelische Nachwirkungen der NS-Zeit und Wege zu ihrer Überwindung. München. 14ff., 73–80, 108, 200.
- 6 Ninh, Bao (1996): *The Sorrow of War*. New York. First published in roneotype in 1990 as *Nỗi buồn chiến tranh* (Identity of love), then in 1994 in English, and finally, around 2006, in Vietnamese; pirate editions of the English version were sold before to tourists and also to the Vietnamese. Translated into many languages, mostly based on the English version co-written by the Australian author Frank Palmos, in close cooperation with the original author. Cf. Meyer, Christina (2008): *War and Trauma Images in Vietnam War Representations*. Hildesheim. 161–189.
- 7 For tolerated local private commemoration, veneration of the dead and clever reasoning see Kwon, Heonik (2013): *Cold War in a Vietnamese Community*. In: Laderman, Scott/Martini, Edwin A. (eds.): *Four Decades On. Vietnam, the United States and the Legacies of the Second Indochina War*. Durham. 84–102. 89. For the publically steered positive commemoration Kwon, Heonik (2013), 90f. and Vương Trí Nhàn (2008): *The Diary of Dang Thùy Trâm and the Postwar Vietnamese Mentality*. In: *Journal of Vietnamese Studies* 3, 2. 180–195. 182–186 for photos, then the censoring of the first critical literary publications in the 1980s and the beginning of the Doi Moi reform as the framework for the publication of a – still – heroic diary by Dang Thùy Trâm, 189; and more comprehensively Margara (2012), particularly 25ff., on the disregard for the individual suffering of war veterans and those returning from the war in the commemoration culture 81ff. On further, mostly artis-

In Germany there were specific added problems with the processing of war experiences. In particular, the generation that took part in the war had often been involved in very disturbing actions or war crimes which they were determined to forget. They tended to keep these painful experiences bottled up for decades and never spoke about them.⁸

In the first years after the war people were primarily preoccupied with their material needs: the children were malnourished, yet one basically never reads about their psychological wounds during the post-war period.⁹ As late as the 1950s, the public and the psychologists thought that young

tic and literary processing of war memories see Ho Tai, Hue-Tam (2001): *Situating Memory*. In: Ho Tai, Hue-Tam (ed.): *The Country of Memory. Remaking the Past in Late Socialist Vietnam*. Berkeley. 1–17.

- 8 For other coping mechanisms cf. Mitscherlich, Alexander/Mitscherlich, Margarete (1967): *Die Unfähigkeit zu trauern. Grundlagen kollektiven Verhaltens*. Munich. Particularly 24, 40.
- 9 Dinges, Martin (2011): *Die Gesundheit von Jungen und männlichen Jugendlichen in historischer Perspektive (1780–2010)*. In: *MedGG* 29. 97–121. 109. Coerper, Carl/Hagen, Wilhelm/Thomae, Hans (eds.) (1954): *Deutsche Nachkriegskinder: Methoden und erste Ergebnisse der deutschen Längsschnittuntersuchungen über die körperliche und seelische Entwicklung im Schulkindalter*. Stuttgart. One result mentioned, which even surprised the authors, was that children from neglected backgrounds (poor living conditions, poor care and family dissolution, inner neglect) did better at school than well cared-for children (278); mention is made of their lower levels of cheerfulness (284ff.), leaving a higher general readiness to perform. The positive effect of motherly care, even in difficult circumstances, is emphasized in what follows (302). Huth, Albert (1956): *Die Entwicklung des Kindes im Volksschulalter*. Donauwörth. “The now 13 to 19 year-olds have been through the war; their unconscious has been permeated by experiences that continue to have a negative effect. This is why it is essential to convey true, beautiful, good and sacred experiences to these young people!” Huth (1956), 152. This seems to imply that the problems are being perceived, even if the views differ on how to resolve them. Hau, Theodor F. (1968): *Frühkindliches Schicksal und Neurose. Schizoide und depressive Neurose-Erkrankungen als Folge frühkindlicher Erlebnisschäden in der Kriegszeit*. Göttingen. Hau pointed, as early as 1965, to a “structural change in the neuroses of adolescents after the war,” although not much attention has been given to his findings. The lasting psychological effects of the war, which led to “rebellion, protest, extravagance, outsider idolization and a deeply rooted lack of sociability in adolescents, who at the same time overcompensated by seeking mostly superficial contacts, extreme psychomotor states in jazz events,” remained unnoticed, or possibly not understood, by the parents because of their different orientation. The war experiences, which evoked fear, a sense of being exposed and a lack of existential safety and self-assurance in the children and adolescents who were not prepared for the world, continued to affect them detrimentally. The adults and

children did not remember the war and could therefore not be harmed or traumatized by it.¹⁰ And much praise was lavished on the mothers who had everything under control.¹¹

The survivors needed a roof over their heads, the soldiers who had come back and the war widows claimed pensions, the expellees demanded compensation for everything they had lost.¹² For society it was also almost exclusively about material concerns – housing and factories needed to be rebuilt.¹³ Literature was the only place where, even in the early stages, the surviving soldiers' loss of orientation and the problems arising from this for their families were occasionally articulated.

Soon, collective commemoration rituals were introduced.¹⁴ But the psychological consequences of the war remained unarticulated, certainly in

society as a whole were confronted with something they had forgotten, something they wanted to forget and did not want to be reminded of. Only many years later the young people began to ask for what they had missed out on in their earliest childhood." Hau, Theodor F. (1968), 132f., 32, 81f., in particular on father absence, 112. The solution suggested here, too, is "emotional reliability and constancy of interpersonal relationships," which need to make up for the deficits incurred due to the father's earlier frequent absence (or his substitutes who were not reliable due to their age or because they were not consistently present) as well as the lack of affection shown by the mother Hau, (1968), 135.

- 10 For evidence cf. Radebold, Hartmut (2004): *Entwicklungspsychologische Aspekte*. In: Schulz, Hermann/Radebold, Hartmut/Reulecke, Jürgen: *Söhne ohne Väter: Erfahrungen der Kriegsgeneration*. Berlin. 137. Decker, Oliver/Brähler, Elmar (2012): *Die psychosozialen Folgen von Vertreibung, Ausbombung und Vaterlosigkeit bei den Geburtsjahrgängen 1930–1945*. In: Radebold/Heuft/Fooker (eds.), 119–138. 120. Radebold, Hartmut (2012): *Während des Alterns*. In: Radebold/Heuft/Fooker (2012), 139–148. 146. For the sources of this statement see Hagen, Wilhelm/Thomae, Hans (1962): *10 Jahre deutsche Nachkriegskinder*. München.
- 11 Reulecke, Jürgen (2010): *Vaterlose Söhne*. In: Thomä, Dieter (eds.): *Vaterlosigkeit: Geschichte und Gegenwart einer fixen Idee*. Frankfurt. 142–159. 152–156.
- 12 Mitscherlich/Mitscherlich (1967): 23, 40. Winkler, Christiane (2007): *Männlichkeit und Gesundheit der deutschen Kriegsheimkehrer im Spiegel der Ärztekongresse des Verbands der Heimkehrer*. In: Dinges, Martin (ed.): *Männlichkeit und Gesundheit im historischen Wandel ca. 1800 – ca. 2000*. Stuttgart. 157–173.
- 13 Not least in order to be able to generate the transfer payments and the burden sharing – for the *displaced* and the various groups of war victims.
- 14 For instance the Hamburg *Firestorm* etc. where the city commemorated the victims of the bombing with annual wreath-laying ceremonies. On their annual con-

society. After a phase of repression the society in the Federal Republic of Germany has by now collectively worked through the war crimes.¹⁵ Unlike Japan, it tried early on to enter into dialogue with the former enemies in the neighbouring countries, a step that proved instrumental in the subsequent unification of Europe. The Federal Republic of Germany has paid considerable damages and has written history books together with historians from those neighbouring countries. The younger generation has been systematically confronted with the wartime atrocities across the school curriculum. It was nevertheless exactly these war crimes that blocked off German war memories for a very long time: Germans were allowed, expected and willing to publically remember their part as perpetrators, but not their part as victims. This role was fully occupied by Jews, Russians, Poles, et cetera.

This changed relatively “suddenly” around 2000-2003, when those born around 1940 reached retirement age.¹⁶ Now most of them had time at their hands and could no longer repress troubling emotions or stop them from surging up. Some experienced deep inner crises or even severe depression which forced them to confront their past. Some went to see a psychiatrist¹⁷ where they came to realize that, throughout their lives, they had been unable to free themselves from the burdens of the past:¹⁸ they suffered as a result of their parents’ forced silence, especially regarding the question as to their contribution to the running of the Nazi state.¹⁹

These sixty-somethings went public. They declared themselves collectively to be the generation of war children, which initially referred to the now defined memory construct of “war childhood and fatherlessness.”²⁰ They demanded that they should be “allowed to remember without the risk

gresses the territorial associations of the displaced persons bewailed the loss of their homeland – having asked for it to be returned to them for a long time.

15 The differences between the experiences in East and West Germany cannot be further investigated here.

16 The existing, and frequent, earlier statements and publications, to which Dörr quite rightly refers, were not perceived nearly as clearly cf. Dörr, Margarete (2007): *Der Krieg hat uns geprägt. Wie Kinder den Zweiten Weltkrieg erlebten*. Frankfurt.

17 “A few percent”, Rudolf (2009), 90.

18 Schulz-Hageleit, Peter: Zur Problematik des *Durcharbeitens* lebensgeschichtlicher Erfahrungen. In: Reulecke, Jürgen (ed.): *Generationalität und Lebensgeschichte im 20. Jahrhundert*. München. 17–32. Esp. 29.

19 Mitscherlich/Mitscherlich (1967).

20 Cf. Schulz/Radebold/Reulecke (2004).

of being accused of offsetting their own grief against the suffering that Hitler Germany inflicted on other peoples, or of feeling sorry for themselves and styling themselves as ‘victims’.”²¹

The war-induced fatherlessness that first dominated this generational construction was a mass phenomenon. “Millions of German soldiers” were already “absent for long periods of time during the war.”²² In World War II, which claimed inside Germany 4.7 million lives, every eighth German male died, including all ages from children to old men.²³ 3.2 million men were still imprisoned in POW camps in the spring of 1947.

“More than two million civilians were killed whilst fleeing or during displacement. Half a million fell victim to bombing.”²⁴ “Those who died or went missing in the war left behind more than 1.7 million widows and almost 2.5 million half or complete orphans. It is estimated that after World War II around 25 percent of all children grew up fatherless.”²⁵ “Countless others had a troubled relationship with a father who, traumatized by the war, had fallen silent.”²⁶

The consequences for these children, boys as well as girls, were horrendous: growing up without a father meant being deprived of the triangulation (i.e. forming attachments with a mother and a father) that is essential for children’s psychological development.²⁷ Fathers are very important for child development.

They can

- promote a secure mother-baby bonding and contribute their own attachment aspects from an early stage,

21 Reulecke, Jürgen (2012): Die wiedergefundene Vergangenheit. Generationelle Aspekte der neueren deutschen Erinnerungskultur. In: Gansel, Carsten/Zimniak, Pawel (eds.): *Kriegskindheiten und Erinnerungsarbeit*. Berlin. 15–30. 16.

22 Franz, Matthias/Lieberz, Klaus/Schepank, Heinz (2005): Das Fehlen der Väter und die spätere seelische Entwicklung der Kriegskinder in einer deutschen Bevölkerungsstichprobe. In: Radebold, Hartmut (ed.): *Kindheiten im II. Weltkrieg*. Gießen. 45–55. 48f.

23 Of those conscripted one in two of the 20 to 30 year-olds died and one in three of the 30 to 40 year olds.

24 More than half were women and children.

25 Radebold, Hartmut (2004): *Abwesende Väter – Fakten und Forschungsergebnisse*. In: Schulz, Hermann/Radebold, Hartmut/Reulecke, Jürgen (eds.): *Söhne ohne Väter: Erfahrungen der Kriegsgeneration*. Berlin. 115–119. 115f. With more detailed information on individual age cohorts.

26 Franz/Lieberz/Schepank (2005), 49.

27 Reulecke (2012), 22.

- promote separation if the one- to two-year old is too closely attached to the mother, and help to ease the child's anxiety,
- help to strengthen the sexual identity of the three- to six-year old child, and
- through their active involvement favourably influence the child's cognitive competences and internalization of values so that these influences can serve "as models for coping with potentially critical biographical transitions in later phases of life".²⁸

All that was often left to the fatherless children were father projections – mostly idealized images of the absent father – and "allocations of tasks" by their mothers such as, "You owe this (a particular, desired behaviour) to your father." At the same time, children were often required much too early to take responsibility for their younger siblings. Some children were treated like partner substitutes (parentification), a role that could only overtax them. And the mothers themselves were often unable to cope or depressed.²⁹

3. Retrospective Psychological Findings

Parallel to this discovery and public articulation – initially by individuals – of the effects of a repressed war childhood, psychologists came across phenomena that surprised them. Their original aim was merely to find out how widespread psychogenic illnesses – alternating states of anxiety and depression – were in any given urban population.³⁰ At three points in time the researchers investigated 600 randomly selected individuals (equal

28 Whole paragraph according to Franz/Lieberz/Schepank (2005), 50f., quote 51. For more detail cf. Radebold (2004), 120–130.

29 This view only emerged later: Franz/Lieberz/Schepank (2005), 49. Franz, Matthias/Lieberz, Klaus/Schmitz, Norbert/Schepank, Heinz (1999.): Wenn der Vater fehlt. Epidemiologische Befunde zur Bedeutung früher Abwesenheit für die psychische Gesundheit im späteren Leben. In: Zeitschrift für psychosomatische Medizin, 45, 260–278. Radebold (2004), 130–136. The classic description of this generation goes back to Schelsky, Helmut (1957): Die skeptische Generation. Düsseldorf. Specific problems of single mothers after the war, young people's attempt to quickly catch up on training, the premature taking on of responsibility – often for younger siblings, because the working mothers were frequently absent, helping with the reconstruction, great reluctance to engage in politics.

30 Including a tendency towards symptom shifting.

numbers of men and women) who were born in 1935, 1945 and 1955, using standardized questionnaires and interviews. The survey was first carried out in 1979-83, then repeated in 1983-1985 and again in 1991-1994.³¹ This Mannheim Cohort Study showed on the one hand that a quarter of the population suffered from such disorders; on the other hand – and more importantly – that these sufferers mostly belonged to the older generation. This was interpreted as a consequence of the extremely disturbing war experiences of this age group which showed that the problems had not sorted themselves out in the course of a long life; on the contrary: when the study was repeated eleven years later, they were equally prevalent.³²

In a follow-up assessment that aimed to isolate the risk factors which may lead to mental illness, fatherlessness was unexpectedly found to be a statistically significant indicator of later problems and their persistence over eleven years.³³ Where with children of 6 and younger the father was absent for more than six months – only in a few cases the father had died – they displayed even fifty years later more strongly pronounced disorders than other members of the same birth cohort.³⁴ The absence of a father is of course only one factor among many, because with psychogenic disorders several factors come together such as personal characteristics, social support, chronic stress, genetic influences and other strains of early childhood. But extended separation from the father increases the risk at a statistically significant level. These findings corroborated the self-interpretation of the *generation of war children*.

The specific strains of being a war child have been researched in more detail since then. In the ELDERMEN study, which was carried out from 1994 to 1997, all over sixty-year old patients admitted to hospitals for acute internal medicine were, during the last third of their treatment, questioned and examined with regard to psychogenic disorders, present physical disabilities, subjective wellbeing and subjective physical ailments. As a first important result the study revealed that those who experienced the

31 Franz/Lieberz/Schepank (2005), 45–48.

32 Based on the central study year, the missing “spontaneous remissions” were an important topic of psychoanalysis for some time. Franz, Matthias/Lieberz, Klaus/Schmitz, N./Schepank, Heinz (1999): A Decade of Spontaneous Long-Term Course of Psychogenic Impairment in a Community Population Sample. In: *Soc Psychiatry Psychiatr Epidemiol* 34, 651–656. 652f.

33 Franz/Lieberz/Schepank (2005), 49.

34 Franz/Lieberz/Schepank (2005), 50f.

war as children or pupils were significantly more stressed by this experience than those who were already adults at the time.³⁵ This became apparent on comparing elderly with very elderly people in the 1990s. The latter group was born between the wars, before 1930, the younger group were born later. Members of the younger group had more problems working through the stressful events because they had not been offered or learnt ways of coming to terms with their experiences. The older ones had coped better although they were in a worse physical state at the time of the investigation: they were, after all, on average 15 years older!

On closer inspection, the generation of war children born between 1930 and 1945 proved to be rather heterogeneous which meant that further research was necessary: the question now was how “displacement and being bombed out had affected their present state of health” and “to what extent anxiety and depression continued to be more prevalent today among those who were displaced or bombed out.” In addition, half of this generation grew up with fathers, with a quarter of them the father was absent part of the time, and with almost another quarter the father was away for a long time or permanently.³⁶ Further studies were therefore carried out to see “to what extent growing up without a father affected people’s present wellbeing.” In order to further verify these results an investigation representative of the overall population followed. In two sections, conducted in 2002 and 2003, approximately 4500 (4478) persons aged 14 to 93 years were questioned. Of that number, 1247 were war children (born between 1930 and 1945).³⁷

The results were unambiguous: refugees saw themselves as physically less fit (they reported problems with climbing stairs, walking longer distances, taking baths by themselves) than those who had not been forced to

35 Schneider, Gudrun/Driesch, Georg/Kruse, Andreas (2012): Belastende und fördernde Faktoren im Lebensverlauf der Kriegskinder – Zusammenhänge zur psychischen Gesundheit im Alter. In: Radebold/Heuft/Fooker (2012), 93–104. 101, 103. (522 of patients over 60, objective physical disability, subjective wellbeing, subjectively experienced physical complaints, biographical experiences).

36 Brähler, Elmar/Decker, Oliver/Radebold, Hartmut (2012): Ausgebombt, vertrieben, vaterlos – Langzeitfolgen bei den Geburtsjahrgängen 1930–1945 in Deutschland. In: Radebold, Hartmut (ed.): Kindheiten im Zweiten Weltkrieg und ihre Folgen. Gießen. 111–136.

37 572 in the first section (2002): Displacement, bombed out and at least two years without a father; 675 in the second section (2003): mostly grown up without a father, Brähler/Decker/Radebold (2012), 115–117.

flee. In women this was even more pronounced than in men.³⁸ The same result emerged when it came to physical role functioning (“doing difficult jobs in recent weeks”, “not being active for as long as before”) as an element of reduced life satisfaction. The second factor investigated, being bombed out, compromised physical role functioning in men more than in women. The same applied to social functioning: men who were bombed out have more problems keeping in contact with acquaintances, visiting friends etc. – and they tend to have more pain. The psychological wellbeing is generally lower in people who were bombed out, and lowest if they were women. Bombed out people have panic attacks twice as frequently as the not-bombed out; 13 percent of bombed out men and 18 percent of bombed-out women display reduced psychosocial functioning: in each case these figures are about three times as high as for people who never lost their homes. They have “difficulties doing their work, looking after their homes and getting on with other people.”³⁹ One therefore needs to differentiate between the consequences of fleeing, which stressed women more permanently physically, and being bombed out, which, in men, led to physical and social problems in particular whilst more often causing mental stress in women.

38 Brähler/Decker/Radebold (2012), 124f.

39 Brähler/Decker/Radebold (2012), 128f.

Temporary paternal absence of up to two years had no long-term effect. Growing up largely without a father, on the other hand, proved to have further adverse effects on development as the table shows.

Table 1: Grown up fatherless: increased symptoms compared to children with fathers⁴⁰

Parameter	Men	Women
Depressive symptoms (stronger, episodes)	increased by a third	almost twice as high
Dysthymia (mood disorder: milder, lasts longer)	increased by a fifth	increased by a third
Social phobia (mistrust towards others)	increased by a third	almost twice as high
Somatic symptoms	minimally higher	increased by a third
Stress	increased by half	increased by half

The same picture emerged for all forms of fatigue⁴¹ - physical, cognitive or affective: symptoms are higher for all who grew up without a father. With women they are, at 40 to 50 percent, twice as high as with men where the increase is only 20-25 percent. Negative affectivity (proneness to anxiety, anger or depression and pessimistic outlook on life) and social inhibition are up by about 10 percent in both sexes.

The absence of a father therefore had a permanent negative effect on boys and girls. Psychological stress is, however, mentioned more often by women than by men throughout. On the whole, the specific war effects in people who were bombed out, displaced or fatherless are obvious, with stress patterns differing between men and women.⁴² The results of representative population studies and a series of specific studies on smaller

40 Author's own presentation based on the precise figures in Brähler/Decker/Radebold (2012), 130ff.

41 Brähler/Decker/Radebold (2012), 134. It should be "fatigue", not "fatigue".

42 It cannot be discussed here why the reported lower mental stress in men is due to the phenomenon that mental illness in men remained a taboo until recently. The fact that the questionnaires and scaling tools used are based on self-evaluations could have an effect: Maybe men did, "merely" for gender reasons, not think of reporting such symptoms more often.

populations – such as refugee children, elderly people in need of care, myocardial infarction patients, psychotherapeutic patients – corroborate each other. Personal accounts⁴³ and more recent epidemiological findings also point in the same direction.⁴⁴

Finally, a study representative of the overall population on – full or partial – post-traumatic stress disorder showed the ranking order of traumatic war experiences in the older patients even more clearly: “Direct war experiences were most frequent at 23.7 percent, followed by being bombed out during the war (20.6 percent) and traumatic events in connection with displacement (17.9 percent).”⁴⁵

4. Transmission to the Second and Third Generation

Another important finding of this research is that trauma does not end with the generation directly affected by the war, but is passed on to the second and even the third generation, that is, the grandchildren of the survivors. This transmission can be explicit or implicit.

For Germany this has been investigated in depth with reference to the severe bombing of Hamburg, known as the *Hamburg firestorm*: a series of air raids carried out in the night of 27 July 1943, with 739 bomber planes not only causing immense damage to buildings but temperatures soaring up to 1000° degrees as a result of *chimney* effects, melting the tarmac in the streets and burning those alive who tried to escape. 30,000 were killed in that one night. As part of this project, particular families were questioned about the entire stretch of 70 years that had passed since the bombing.⁴⁶ Using tried and tested psychological tools – questionnaires for self-evaluation – as well as objective physiological parameters, it was possible to show that members of the second or third generations also presented

43 Radebold (2012), 140f.

44 Glaesmer, Heide/Brähler, Elmar (2011): Die Langzeitfolgen des Zweiten Weltkrieges in der deutschen Bevölkerung: epidemiologische Befunde und deren klinische Bedeutung. In: *Psychotherapeutenjournal* 4. 346–353.

45 Maercker, Andreas/Forstmeier, Simon (2008): Posttraumatische Belastungsstörungen in Deutschland. Ergebnisse einer gesamtdeutschen epidemiologischen Untersuchung. In: *Der Nervenarzt* 79. 577–586. 582. Fatherlessness was not asked about in this study.

46 64 were war contemporaries, 45 or 43 from the generation of their children, 16 grandchildren.

statistically significant dispositions to psychological disorders.⁴⁷ One of the particular benefits of this project was that it was also possible to obtain information in longer interviews on factors that may have reduced the traumatic effects, such as adults dealing with a harrowing situation in a calm rather than frantic manner in the presence of children.⁴⁸ Later on, speaking about the experiences helped coming to terms with them, but for this it needed a reliable family member and such a person was often not available. Women processed many experiences by devoting themselves to their families, men by seeking success at work or by building family homes.⁴⁹

The study also revealed that people found it easier to talk about their experiences with their grandchildren rather than with their own children, a fact that points to people's inhibitions in speaking about their direct war experiences as parents as well as to the next generation's lack of interest in or reluctance to deal with their parents' problematic experiences. To an extent, these are dispositions that are conveyed by society: a long-lasting climate of collective repression or politically imposed glorification of war memories – as was common in Vietnam for a long time – can also affect communication within families. It was definitely easier to find access for

47 In the case of the firestorm project there is also a strong correlation of psychological disorders between the degree of stress in the first and second generation, Issendorff, Philipp von (2013): Transgenerationale Weitergabe von Kriegstraumata. Eine psychometrische Untersuchung. In: Lamparter, Ulrich/Wiegand-Grefe, Silke/Wierling, Dorothee (eds): *Zeitzeugen des Hamburger Feuersturms 1943 und ihre Familien: Forschungsprojekt zur Weitergabe von Kriegserfahrungen*. Göttingen. 256–273. 267.

48 Möller, Birgit/Lamparter, Ulrich (2013): Erlebnis und Verarbeitung des *Feuersturms* im Lebensverlauf. Ein typologischer Ansatz. In: Lamparter, Ulrich/Wiegand-Grefe, Silke/Wierling, Dorothee (eds): *Zeitzeugen des Hamburger Feuersturms 1943 und ihre Familien: Forschungsprojekt zur Weitergabe von Kriegserfahrungen*. Göttingen. 67–103. 88. Drost, Nicole/Lamparter, Ulrich (2013): Das Tableau diagnostischer Urteile. Eine qualitativ-quantitative Auswertung des Zeitzeugeninterviews. In: Lamparter, Ulrich/Wiegand-Grefe, Silke/Wierling, Dorothee (eds): *Zeitzeugen des Hamburger Feuersturms 1943 und ihre Familien: Forschungsprojekt zur Weitergabe von Kriegserfahrungen*. Göttingen. 167–192. 174.

49 Möller/Lamparter (2013), 101. Holstein, Christa/Lamparter, Ulrich (2013): Die zweite Generation. Qualitative Befunde. In: Lamparter, Ulrich/Wiegand-Grefe, Silke/Wierling, Dorothee (eds.): *Zeitzeugen des Hamburger Feuersturms 1943 und ihre Familien: Forschungsprojekt zur Weitergabe von Kriegserfahrungen*. 231–255. 250. On the generation of children of contemporary witnesses.

those directly affected, once they had retired from work, and for their grand-children, who were in any case further removed from the events.

Aside from such explicit ways of processing war trauma there are also implicit effects – such as total silence about what has been experienced.⁵⁰ Inner blocks in dealing with traumatizing events affect “the intergenerational mental structure”, “since the generations do not pass the time allocated to them in isolation.”⁵¹ Experiences that have not been adapted will eventually come to the surface “behind the backs of the subjects” (as Hegel put it) – and affect the next generation. The medical scientists were surprised by the outcome of their research: even in the third generation, people whose grandparents remembered traumatic war experiences needed psychiatric treatment more frequently. This greater *vulnerability* in grand-children was statistically significant and therefore not mere coincidence. This result was the more astonishing as the grandparents in question had kept their war experiences to themselves for many years and even the parent generation had often found out little or nothing about their own parents’ experiences before they began treatment. It is as if there had been a longstanding vow of silence: people preferred not to talk about the war and their horrific experiences and it was better not to ask any questions. These experiences were often mentioned for the first time forty or fifty years after the end of the war as part of the treatment. This observation also showed that keeping silent does not help to relieve psychiatric stress. Those directly affected were clearly so deeply influenced by their war experiences that they passed on their fears and traumas wordlessly and unaware of their own compensatory actions. Psychologists speak of “implicit missions” that are passed on to each following generation. With war children these are clearly associated – as has been proven clinically – with the specific experiences of their parents.

50 Cf. Lamparter, Ulrich/Holstein, Christa (2013): Was ist gefolgt? Erste Ergebnisse zur Transmission von Erfahrung des *Hamburger Feuersturms* (1943) zwischen der ersten und der zweiten Generation. In: Lamparter, Ulrich/Wiegand-Greife, Silke/Wierling, Dorothee (eds): *Zeitzeugen des Hamburger Feuersturms 1943 und ihre Familien: Forschungsprojekt zur Weitergabe von Kriegserfahrungen*. Göttingen. 274–292. 291. On the effect of not speaking about Nazi involvement see Hanebutt, Otto F. (2003): *Die vaterlosen 68er und ihr Erbe. Identitätsfindung bei Nachkommen der NS-Generation; Entwurf eines intergenerativ und narrativ orientierten Konzeptes zum Verständnis rechtsextremistischer gewalttätiger Jugendlicher*. Heidelberg.

51 Reulecke (2012), 19.

This is best observed with people who lost their home through bombing or displacement.⁵² The generation directly affected often tends to compensate by being particularly focused on acquiring possessions, hoping that this will give them – practical and symbolic – security. But the experience can also give rise to a sense of homelessness and general insecurity regarding the possibility of being able to hold on to anything one has achieved. This constant insecurity can be unconsciously transmitted to the next generation who receive the *implicit mission* not to be disorderly or conspicuous and not to endanger the status the family has worked so hard to establish. Or it might be indirectly conveyed to them that they better choose an apprenticeship as a safe route to professional security rather than academic studies which would take longer.

These permanent unconscious fears in members of the war generation manifest, on the one hand, in the inability to speak about them with their children. On the other hand, these parents tend to be particularly strict with their adolescent children, especially their daughters, warning them not to stay out late, because they perceive the night time, beyond any reasonable measure, as particularly dangerous. Some children rebel vehemently against such implicit missions, fighting the imposed restrictions, sometimes for decades, by pursuing often harmful and chaotic lifestyles in their search for independence. Eating disorders are also frequent. These young people often do not even know why they seem almost driven to keep making the same mistakes. The autobiographical and psychological literature of the recent decades on the consequences of war and displacement in Germany is full of just such examples. But the inferences are clear enough: war trauma is transmitted implicitly within families – manifesting also as feelings of guilt, helplessness, desolation, loss or yearning – and can heavily impact on the life of the next generations.⁵³ What astonished the researchers of the Mannheim Cohort Study was that also among the second and third generations the number of psychiatric diagnoses was higher for those whose parents or grand-parents were traumatized in the war. This meant that they were *more vulnerable* across several generations. The German scientists in question would have been less surprised

52 Holstein/Lamparter (2013), 238 seq. Hirsch, Helga (2004): *Schweres Gepäck. Flucht und Vertreibung als Lebensthema*, Hamburg.

53 To mention just some of the topics which have been well researched by Lorenz, Hilke (2012): *Weil der Krieg unsere Seelen frisst. Wie die blinden Flecken der Vergangenheit bis heute nachwirken*. Berlin.

had they been familiar with the research into victims of the holocaust.⁵⁴ This research focused on the psychological experiences of victims, mainly in Israel and the US, who had survived the German concentration camps.

One might surmise that these survivors were simply glad to have come through their ordeal alive. Yet the study found that those who were able and willing to speak about their experiences at all were tormented by the question as to why they were saved while their siblings, parents and other relatives perished. In Israel the generation of grand-children also suffered particularly from their parents' and grand-parents' silence and developed feelings of guilt. What is important for our context is that the silence, even in those who were indisputably victims and who, as survivors of the death camps, were entitled to claim a high moral status for themselves, was – in the long-term – harmful for their own mental health and that of their children and grand-children.

Long-term studies also revealed that psychoanalytical treatment can be helpful.⁵⁵ Special forms of therapy, such as Integrative Testimonial Therapy (ITT), were developed that work with the resources of the trauma sufferers. The participants of this therapy first undergo a phase of guided biographical reconstruction, followed by a phase where they confront the experiences they have so far repressed and, finally, one of cognitive re-evaluation.⁵⁶

There is thirdly and lastly a series of investigations that try to establish how failure to work through war-related trauma can have repercussions in the wider society: the German student protests of 1968, for instance, were interpreted as symbolic patricide without fathers.⁵⁷ One interpretation sees

54 See note 4, in particular Bohleber (2000), 811f., for Niederland's lecture at the 1967 Psychoanalysis Congress, and 817ff. on the extended silent phases in illness.

55 A catamnesis study (summary of treatment, including in particular psychotherapy and rehabilitation) showed the absence of symptoms after coming through the encoded illness. More detail and better illustrated in Leuzinger-Bohleber, Marianne (2012): *Kriegskindheiten, ihre lebenslangen Folgen – dargestellt an einigen Beispielen aus der DPV-Katamnesestudie*. In: Fooker/Heuft (eds.), 61–82, 63ff.

56 Among the less specific precursors is "reminiscence therapy" which aims to bring harmony to the way one looks at one's life and attach meaning to one's experiences. In "testimonial therapy" the main focus is on working through trauma; Glaesmer/Brähler (2011), 350.

57 Pilzweiger, Stefanie (2015): *Männlichkeit zwischen Gefühl und Revolution: eine Emotionsgeschichte der bundesdeutschen 68er-Bewegung*. Bielefeld 2015. 215–219, 224.

symbolic parentlessness as the underlying cause of the revolts and as a failed attempt of the generation of '68 to de-identify from their parents.⁵⁸ It is thought that, after an apocalyptic childhood during or directly after the war, the members of this generation felt they had no right to their existence because they had been conceived accidentally while their soldier fathers were on home leave. This made it impossible for them to detach themselves from their parents in the usual way, leading them to rebel against them excessively.⁵⁹ At least partly, the student protests were also represented as a way for these students to reckon with their Nazi-fathers. Whether these fathers were still alive or not, the question now had to be asked what their mothers and fathers, the whole generation in fact, had undertaken to stop the Nazi regime.

Complementing this interpretation is the hypothesis that the protesting students were looking for a symbolic father substitute: leaders of revolutionary liberation movements, such as Che Guevara and Ho Chi Minh, who were viewed as occupying a particularly high moral status, took the place left empty by fathers. Both these figures were spatially as well as culturally far enough removed for the students not to have to look more closely at their actions.⁶⁰ Whatever one thinks of the scope of such psycho-historical interpretations of entire social movements, they offer inspiring socio-psychological hypotheses for historical research.⁶¹

58 Before that, but not relating to the actual motives of the generation of 1968, Mitscherlich/Mitscherlich (19667), 262, 258.

59 Particularly regarding male identity disorders Hanebutt (2003), 70ff., 218–226. Busche, Jürgen (2003): Die 68er: Biographie einer Generation. Berlin. Simon, Annette (2001): Wir wollten immer artig sein. Generationskonflikte der 68er in Ost und West. In: Wirth, Hans-Jürgen (ed.): Hitlers Enkel oder Kinder der Demokratie? Gießen. 45–72. 49. Cf. Bude, Heinz (2010): Metamorphosen des Ödipus im Generationenverhältnis. In: Thomä, Dieter (ed.): Vaterlosigkeit: Geschichte und Gegenwart einer fixen Idee. Frankfurt. 269–279. 274.

60 Cf. Franz/Lieberz/Schepank (2005), 53. Some German psychologists and historians hold, moreover, that even the grandfathers of those students were yearning for surrogate fathers, because some of them were also fatherless war children of World War I. Cf. Stambolis, Barbara (2014): Aufgewachsen in *eiserner Zeit*: Kriegskinder zwischen Erstem Weltkrieg und Weltwirtschaftskrise. Gießen. This idea probably goes back to Mitscherlich, Alexander (1963): Auf dem Weg zur vaterlosen Gesellschaft. München. 223ff. For earlier thoughts on the “socialized hatred of fathers” see Bednarik, Karl (1953): Der junge Arbeiter von heute – ein neuer Typ. Stuttgart. 50ff.

61 One would – when comparing other fascist countries (Italy, Japan) and liberal societies (England, USA) as well as the hermaphrodite France (because of the Vichy

On the whole it can be said that war trauma does not resolve itself in those directly exposed to the traumatic experiences, not even if they reach a ripe old age. A warm climate inside the family can be helpful to cope.⁶² In addition, war trauma is transmitted, explicitly or implicitly, to the second and possibly even the third generation and can ultimately even have a noticeable effect on society as a whole.

5. What about the War Trauma in Vietnam?

Against this background it is easily conceivable that traumatic disorders must be widespread and in Vietnam, following the extensive bombing the country was exposed to.⁶³ As far as I know, psychological research has been limited to Vietnamese emigrants who now live in the United States (originally around 650,000).⁶⁴ For the historian the question inevitably arises whether some of the therapies described by psychologists are not reminiscent of the possibilities of Oral History. Is there not – beyond the individual processing of war trauma – scope here for parallel historical research?⁶⁵ Would guided biographical reconstruction, with the aim of confronting experiences that may have been repressed so far, not be a way of allocating a place to these multi-layered experiences and of ultimately re-

regime) – have to operationalize the intensity of revolts (also with a view to specific national protest traditions) in order to arrive at conclusions that can be taken seriously. But many external observers see the split of generations as particularly strong in Germany. Cf. Gilcher-Holtey, Ingrid (2001): *Die 68er Bewegung: Deutschland – Westeuropa – USA*. München. Further interpretations of political culture are provided in: *Generation, Unbewusstes und politische Kultur* (1997): Schwerpunktthema *Psychosozial* 20, 68. Roberts, Ulla (1997): *Anklagen, Verschweigen, Verdrängen: Die NS-Zeit im Konflikt der Generationen*. In: *Psychosozial* 20, 67. 61–75.

62 Quindeau, Ilka/Einert, Katrin/Tauber, Nadine (2012): *Kindheiten im Nationalsozialismus und Zweiten Weltkrieg*. In: *Bios* 25. 87–117. 113.

63 40 million were directly affected, 2 million widows, orphans and disabled, 50,000 mixed-race children (of American fathers) who were ostracized for a long time – and the victims of Agent Orange up to the third generation! Details in Margara (2012), 18f.

64 Lai, Phuong (2008): *Impact of Migration and Trauma on Communication in Vietnamese Families*. San Francisco. Cf. Wilson, John P. (2007): *Cross-Cultural Assessment of Psychological Trauma and PTSD*. New York.

65 Even if today's historiography still has only a very narrow scope in Vietnam, cf. Margara (2012), 23ff., 137.

evaluating them cognitively? Or should this task be left to the writers who, as part of the *doi moi*, were the first in Vietnam to take up this topic after the 1990s?⁶⁶ It would certainly be an interesting field for German-Vietnamese cooperation with the aim of comparatively researching not entirely dissimilar experiences from very different wars.⁶⁷ It can certainly be concluded that coming to terms with trauma can have a positive effect on society. It saves children and grand-children much suffering and, in the long term, it saves society expenses in the health-care system caused by multimorbidity. From the point of view of the historian this is not about moral judgements but about “the attempt to work through psychological and historical experiences as objectively as possible.”⁶⁸ It is, after all, an unfortunate truth that “the end of the war is not the end of the war.”⁶⁹

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66 Margara (2012), 104. A first key text in the literature of renewal of 1988, which also addressed the problem of father absence, is Nguyen Huy Thiep (1997): *Der General im Ruhestand*. In: *Du* 7/8. 36–41. See also the evaluation of personal testimonials in Kwon, Heonik (2008): *Ghost of War in Vietnam*. New York. Appy, Christian G. (2003): *Patriots. The Vietnam War Remembered from all Sides*. New York.

67 It needs to be pointed out, however, that the connection between individual memories and societal developments has not yet been fully explained. Cf. Schulz-Hageleit (2003), 17–32.

68 Reulecke (2012), 19.

69 Radebold (2012), 147. A statement he only relates to 1945, however.

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Adding Detail to the Anthropocene: David Halberstam, Korea and Narratives of War and Environment

David Pickus

“Our choice is over what kind of human-influenced earth we will have. We may lament this truth, but we no longer have the option to choose not to be geological change agents...How to do it right – that should be our concern.”¹

Had history taken another course the Korean peninsula could easily have had political and social contours that followed and expanded on the path set by its first state formations, lines that followed peninsula’s special geography.² In this alternate world Korea – whatever political its form – would be defined the extent of its mountain ranges and food producing plains and river valleys.³ Perhaps, like Switzerland it would be sub-divided into the equivalent of cantons. Further speculation may be amusing, but essentially profitless, as we will never know another Korean peninsula than the one our modern history as produced. The current demarcation line at the thirty eighth parallel of latitude – a line that follows no natural or log-standing historical division in the local landmass – is striking confirmation of humanity’s capacity to shape the world according to the dictates of politics. Furthermore, the development (and non-development) that has taken place since the cease fires of 1953 is an equally striking demonstration of how intertwined considerations of war and environment are. In the world we have made, they are bound up together. We can only profit for seeking better ways to comprehend this intertwining.

Simultaneously, in their own ways, wider shifts in intellectual vocabulary and public consciousness reinforce the notion that the relationship be-

1 Grinspoon, David (2016): *Earth in Human Hands*. New York. 243.

2 For Korea’s early political history, see Hoare, James/Pares, Susan (1988): *Korea: An Introduction*. London.

3 On the distinctiveness of Korea’s geography, see Kwon, Yongwoo/Lee, Jaeduk (eds.) (2010): *The Geography of Korea*: National Geographic Information Institute, Ministry of Land, Transport and Maritime Affairs. Seoul. Connor, Mary E. (2002): *The Koreas: A Global Studies Handbook*. Santa Barbara.

tween war and the environment is not simply one more item to think about, but is a subject that fuses some of our most pressing contemporary concerns – indeed, humanity’s fate itself.⁴ For instance, every year *Edge.Org.*, a highly-regarded website devoted to the dissemination of the latest findings and trends in science asks a question of prominent thinkers. The goal is not simply to publicize research, but to sensibilities in the modern-day Republic of Letters. For 2017 the annual question was “What scientific term or concept ought to be more widely known?” The response provided by NYU Environmental Studies professor Jennifer Jacquet, was not only interesting and informative in its own right, but also serves as a helpful starting point for taking up an aspect of the subject of war and the environment that has no easy answer. This is the question of how an understanding of modern war’s environmental impact can be disseminated to a popular audience, one which learns about wars primarily through first-hand accounts and journalistic narratives.

Jacquet chose a term that is certainly becoming more widely used among the educated public, namely the “Anthropocene,” a human dominated (but not human controlled) period that replaced the Holocene, in which humans, at the start of the warming of the Holocene, when the Neolithic Revolution initiated the slow changes in the environment that eventually accelerated into the Anthropocene. Jacquet wrote:

“The Holocene is outdated because it cannot explain the recent changes to the planet: the now 400 parts per million of carbon dioxide in the atmosphere from burning fossil fuels, the radioactive elements present in the Earth’s strata from detonating nuclear weapons, or that one in five species in large ecosystems is considered invasive.”⁵

The public must understand that these are not simply facts in a field of facts. They are signs that now the earth cannot be set back to a natural environment, even a dramatically changing environment. It should be noted that one of the three signs of the Anthropocene mentioned relates directly to war, and it fits that the scientists working to formalize the term’s usage, the “Anthropocene Working Group” support a “mid-20th century start date, which corresponds to the advent of nuclear technology and a global

4 Two fairly recent works taking on the broad issue of irreversible threshold crossing are Rockström, Johan/Klum, Mattias (2015): *Big World, Small Planet: Abundance within Planetary Boundaries*. Stockholm. Dryzek, John/Norgaard, Richard/Schlossberg, David (2013): *Climate Challenged Society*. Oxford.

5 <https://www.edge.org/response-detail/27096>.

reach of industrialization.” But herein lies the challenge for those who not only want to formalize a new term, but for all of us who want the implications of what it means to live in the Anthropocene to percolate into a broader public consciousness. How can we bring the public to tell themselves a narrative of the start of the Anthropocene?

In broaching this matter, we can focus on the topic of environment and war as a means to consider what changed at this “mid-20th century start date,” and what is most pressing for the public to understand about this transition stage. But of course this “stage,” if we must call it that, is a theater of politics, conflict and war. Put more plainly, the global topic of the Anthropocene’s start flows into relatively smaller subject’s like the Korean War’s impact. The intersecting of war and environment causes them to flow together.

From this starting point I wish to lay out the subject and thesis of the essay that follows. It follows from all that has been said that history matters, not only the “big” history that large, nature-dominated eras, with our own, human dominated, time, but also links forged in people’s minds; the understanding they have of how large and small fit together. However, there is no easy way to write about this matter because no one, no matter how perspicacious, can step outside themselves to comment with authority and full accuracy on how they represent a changing mentality. The best we can do is observe closely how others understand history and how they relate this understanding to others. This gives us some notion of how they portray the interplay between war and environment and how they find meaning in what they see. Hence, in my judgment, it is especially helpful to turn to the works of popular historians for they are in the business of conveying broad meaning to a wide audience.

This is why I want to turn to journalist and historian David Halberstam, especially his *The Coldest Winter: America and the Korean War*.⁶ Halberstam (1934–2007), who first came to wide public notice as a New York Times reporter during the early stages of the Vietnam War, or, more accurately, during the early stages of the American phase of the twentieth-century’s wars in Vietnam, made a life-long effort to provide a coherent narrative to the USA’s military engagement with East Asia in the years follow-

6 Halberstam, David (2007): *The Coldest Winter: America and the Korean War*. New York.

ing the Second World War.⁷ As such, this 700 page 2007 work on Korea is particularly important because it represents the culmination of Halberstam's prodigious output, while accounting for the war that in significant ways, served as a prototype for American efforts to use a combination of force and diplomacy to both reserve and redefine a world order. Hence, he must take some stand on the question of what happened to the Korean peninsula and people living there. This, in its own way, focuses our attention on the question of war and environment and fills in another empty space in the larger story of how the Anthropocene got going. Hence, apart from the intrinsic interest of this work – Halberstam is a good writer who can tell his story well – *The Coldest Winter* provides a glimpse of how a broader public awareness is formed.

To explain this last sentence: I am not claiming that is a hidden ecological narrative within *The Coldest Winter*. As we shall see, Halberstam's primary concern is with the interconnected politics and morality of US foreign policy. Yet, he does not have the luxury of writing in rarefied academic prose. In explaining the Korean War and discussing its meaning he must discuss bombing campaigns and military tactics in concrete detail. He cannot speak in abstractions. Likewise, in presenting this account to a popular audience, he remains true to his journalistic roots as aims to convey the story as others saw it. He presents and describes what they experienced. In doing so, he must say something about how they saw their environment being changed by war. In sum, Halberstam enables us to think more carefully about why Korea has taken its current form, a topic of no small importance in thinking about current configurations of human life.

A few more words about Halberstam's career fill out this claim. He received a Pulitzer Prize for his war reporting in 1964.⁸ For the rest of his career his prolific writing kept him in the public eye, gaining him a status one of the US's most prominent journalists. Yet, perhaps because journalism is somehow derogated in academic eyes, Halberstam is little-studied. Apart from a few scholarly essays concerned US media and the Vietnam War,⁹ to the best of my knowledge there is no academic work that analyses

7 See such works as Halberstam, David (1973): *The Best and the Brightest*. Greenwich. Halberstam, David (1986): *The Reckoning*. New York.

8 For US journalistic descriptions of Vietnam during the time of conflict, see Halberstam, David (1998): *Reporting Vietnam*. New York.

9 See Seyb, Ronald (2012): *When Objectivity Works: David Halberstam's Vietnam Reporting*. In: *Media History Monographs*. 1–24.

his achievement, or treats him as a thinker in his own right. This is a shame because Halberstam's writing is anything but a mere passing on of information. He has a story to tell, as a brief encyclopaedia entry on him intentionally or not reveals:

While his reporting on Vietnam initially supported US involvement there, *The Making of a Quagmire* (1965) reflected a growing disillusionment with the war, and its title became a byword for intractable military operations.¹⁰

This point could be put even more bluntly: Halberstam devoted his talents not simply to asserting, but to demonstrating why the US Vietnam intervention should be considered a quagmire. The ample details he provided made that notion viable in his readers' minds. Thus, if we now turn to his work on the Korean War we are prepared for his approach to describing warfare. Halberstam will provide telling details, both about the principal decision makers and about the actual experience of combat and diplomacy. By relating these details – and not by positioning himself with an ideological school or academic party – Halberstam's own point of view emerges. In the case of Korea, it is not exactly a quagmire, but something more relevant to our own wider theme. It is a war that was not under the control of those who claimed they were controlling it. As a consequence, the way it spread was particularly destructive and required an ongoing extension to new arenas and a more and more drastic reshaping of life on the peninsula as a whole. In describing one battle toward the start of the US intervention, Halberstam recounts the predicament of an American regiment that was ordered to cross a river (invariably dangerous in battle conditions of the time) in order to test North Korean strength, Halberstam recounts the experiences of a lieutenant named Lee Beahler who was “wary” of this plan “from the start.”¹¹ In Halberstam's summary “The entire business had only confirmed something he had suspected almost since he arrived in country: that he was working with superiors who in all too many instances did not know as much as they were supposed to about combat.”¹² As it turned out, several US soldiers were killed in their exposed position, leading to a series of recriminations among commanders “as the

10 Britannica Academic online, “David Halberstam.”

11 Halberstam (2007), 272.

12 Halberstam (2007), 272.

top echelon of a large American unit experienced something akin to a nervous breakdown.”¹³

Singling out this one point needs more explanation to clarify what is at stake in using Halberstam’s work to think further about the relationship between war and environment. Castigating incompetence at the top is a commonplace in much war literature, especially in reportage on wars that are not remembered with a high degree of patriotic reverence. Yet, a look at the context in which Halberstam placed this story shows that he is not simply reproducing a familiar trope. He was describing a moment in the war in early September 1950, after US troops had been driven back by an energetic offensive to the south-east corner of the peninsula, and before MacArthur led an invasion at Inchon outflanked the North Koreans and drove them again above the thirty eighth parallel. During this period there some indecisive, but violent fighting occurred around an area known as the Naktong Bulge.¹⁴ These battles could not be resolved without a further intensification of combat, and this, in its turn, required a “colder” logic, one that would require ever greater planning and the unleashing of more extensive violence. Yet, this accelerating rationalism, as it were, remain fully compatible with a world of illusion, blunders and what was called in the Vietnam context the “arrogance of power.”

The contribution of a work like Halberstam’s *The Coldest Winter* is that it provides the detail to make this realization vivid to a larger audience. The consequences of the Korean War are not the business of specialists alone. As historian Joshua B. Freeman reminds us, at the time of the armistice of July 27, 1953 “fifty-four thousand US troops had died in the fighting, and nearly twice that number had been wounded. For Koreans, the war took a staggering toll: nearly three million people – about 10 percent of the population – were killed, wounded or missing. Another five million became refugees.”¹⁵ While the exact statistics will require further examination, the extent that war fully changed this environment is enormous. Freeman’s next comment is also germane:

“The Korean War has not loomed large in American memory or culture, in spite of its heavy cost. Yet the war had a profound impact on the way the United States developed. It locked the country into an unprecedented mili-

13 Halberstam (2007), 273.

14 For a further account, see Catchpole, Brian (2000): *The Korean War*. London.

15 Freeman, Joshua B. (2012): *American Empire: 1945–2000. The Rise of a Global Power, the Democratic Revolution at Home*. New York. 79.

tarism, which continued after the war and included the long-term deployment of troops in Europe and Asia.”¹⁶

Yet, a consensus among historians is that the war began with, and was escalated by, ongoing political miscalculations. Indeed, a good case could be made that the miscalculations did not cease throughout a war which essentially ended at the same point it began. The Chinese offensive across the Yalu in October 1950 took the US command by surprise, and left them responding to events. Likewise, the dreams of Kim Il Sung and Mao Zedong that their military offensives would spark spreading popular uprisings in favour of the communists also revealed themselves to be products of wishful thinking. Thus, in the end, the Korean conflict culminated in a war of attrition that was settled not in a peace treaty, but in a patched-up return to the *status quo ante*, and a renewal of preparations for future conflicts.

To return to the main question, does this information belong in a discussion of the Anthropocene? Let us recall that, if we wish to think of ourselves as living in a new, “human dominated,” natural era the start date typically given is the mid twentieth-century, corresponding with the historical era of the Korean War. Thus, the question could be rephrased as whether or not the details of the Korean War, including the record of miscalculations and blunders that comprise its record rise to the point that it should be incorporated into the larger, macro history of a transition to a new epoch in the organization of life on our planet. From this perspective, it is clear that we need to ascertain which details of the Korean War should be singled out for emphasis. Hence, we must return to writers like Halberstam and the choices they made in showing why the Korean War deserves a prominent place in our historical memory.

Lest it be objected that the link between this war and the dawn of the Anthropocene is too far-flung or abstract, consider that nature was irreversibly altered by the conflict on the Korean Peninsula. Two military decisions should be kept in mind. First, the North Korean invasion that began the war was done with the aid of Soviet tanks, particularly the T-34, which Halberstam noted “had an unusually wide tread that kept it from getting stalled in mud and ice, and possessed an unusually large fuel tank of one hundred gallons that allowed it to go up to 150 miles without refuelling.”¹⁷ A war deploying increasing numbers of these tanks cannot leave

16 Freeman (2012), 80.

17 Halberstam (2007), 85.

land-use patterns the same. Second, and more devastatingly, was also an air war, one that cannot be described as limited, even though US worries about an escalation of the war with China and the Soviet Union inhibited even more extreme bombing. Still, the American command's belief in the "vital necessity of destruction of North Korean objectives north of the 38th parallel,"¹⁸ resulted in a massive bombardment campaign whose destructive impact is so large as to be incalculable. We can only rely on general estimations. Thus, the US Air Force's Far East Bomber Command:

"calculated the destruction of North Korean cities in these percentages: Manp'ochin, 95 percent; Kointong, 90 percent; Sakchu, 75 percent; Ch'osan, 85 percent; Sinæichu, 60 percent; Kanggye, 75 percent; Hæich'ýn, 75 percent; Namsi, 90 percent; Æichu, 20 percent; and Hoeryýng, 90 percent."¹⁹

In sum, we must keep in mind the connection between these political and military decisions, and the permanent reshaping of Korean life. Halberstam's analysis indeed provides a link between this micro and macro picture, and we should turn to the ways that he stitches together his overall narrative. Most prominently, Halberstam "cuts" between portraits of political leaders and tales told by average people, ones who bear witness to the consequences of these decisions. To this journalistic method Halberstam adds a focus on American power, and a conviction – one which remains implicit that it must be exercised in the proper way. For instance, in his account of what he called the "terrible days" of America's initial defeats, he noted that:

"Of the many American illusions that dies in the first few weeks of the Korean War, perhaps the most important was the belief in the atomic bomb as the ultimate weapon, in effect the only weapon we needed."²⁰

The "we" in this sentence is genuine. Halberstam was writing as an American, and explaining to a broader public in the twenty-first century, when felt should have been realized by political elites in the years 1945–50, namely that the

18 Kim, Taewoo (2012): Limited War, Unlimited Targets. In: *Critical Asian Studies* 44. 467–492. 474.

19 Kim, Taewoo (2012), 483.

20 Freeman, Joshua B. (2012): *American Empire. 1945–2000: The Rise of a Global Power, the Democratic Revolution at Home*. New York. 79.

Freeman (2012), 80.

Halberstam (2007), 149.

“Early American monopoly of it [atomic bomb], the quick instantaneous way it had seemed to end the Pacific War, had created an illusion when it came to America’s defense budget: that it could develop a military arsenal on the cheap, with only one kind of arrow in it. If the bombs dropped on Hiroshima and Nagasaki had seemed to inaugurate a brand new chapter in the history of human warfare, supposedly making all other weapons obsolete and creating a world where military power rested only with the richest, most technologically advanced nations, then the Korean battlefield defeats of early July 1950 shattered that belief.”²¹

Though perhaps not so directly, another belief that was shattered was that US predominance could be maintained without engaging in such *messy* ground wars, or devoting considerable resources to military build-up and deployment. Therefore, the accounts Halberstam provides of Korean War battles demonstrate in detail how significant an effort governments made in fighting this war, and why its impact could not be temporary or minor.

Such considerations give Halberstam a critical distance on US foreign policy as a whole. His principal target is those who refuse to acknowledge the fact that the world-wide the USA entered were neither simple to understand, nor easy to resolve. A primary example, and a point he elaborated at length in his *The Best and the Brightest* were those who maintained that Vietnamese communists were entirely directed by Moscow, and that the fighting in Vietnam had no roots in an anti-colonial struggle. In the case of Korea, he devotes meticulous attention to showing how political groups within the US, particularly elements within the Republican Party gained political power for themselves by using the communist victory in China in 1949 to accuse the Democrats of weakness. As he described it, this not only goaded the Truman administration into taking a more hard-line stance in East Asia, but it made US politicians across the board afraid of dissenting on foreign policy for fear of appearing “soft.”²² This is not a hypothetical issue. If US politicians had not been so wary of being charged with some form of softness on communism than MacArthur from bringing US troops up to the Yalu River on the Chinese border. It was Mao’s offensive there that led to even more bloody fighting, prolonging the war for another two years, and intensifying the air war and bombing campaigns.

21 Halberstam (2007), 149.

22 Halberstam (2007), 149.

This last example can be fleshed out further. Halberstam proposed that the politically motivated willingness to remain allied with Chiang Kai-shek even after the consequences for future relations with the People's Republic of China became clear. In Halberstam's words:

"Did we really owe more to a fallen leader who had systematically failed his own people, treated American military, political and economic advice with contempt, and served as the major source of weapons for his sworn opponents? Was it worth taking the risk of driving this formidable nation, obviously an ascending power and a potentially dangerous one, and surely one day a great power, into the arms of a sworn enemy? Was it worth reinforcing Mao Zedong in his belief that the United States was but the newest imperial power with designs on his country?...There were the real questions of the moment, and the answers to all of them were almost all surely no. But they were also national security questions that were muffled at the time, outweighed as they were by domestic political forces and emotions."²³

It can be said that, despite Halberstam's certainty, one can still debate these questions of the moment. The Taiwan issue is complex and it is part of a larger and even more difficult matter of the meaning of the Cold War in general. But Halberstam's wider claim is that the fact that Taiwan policy could not be debated fairly and rationally in the US political establishment contributed to the hardening of the antagonism between the USA and the PRC and fanned the flames of the Korean War even further. Thus, we return to the point that to understand any question of war and environment in relationship to Korea – for instance, the use of napalm in bombing campaigns, or the targeting of irrigation canals – requires a familiarity with the kind of story that Halberstam tells.

This point can be spelled out in more detail if we reflect on the long-term consequences of the Korean War. Historian Michael J. Seth spells out a series of significant changes introduced by the war. One of them is so evident that it sometimes escapes attention; its very ubiquity giving it an air of normality. This is the militarization of the peninsula. Speaking of South Korea, Seth writes that, "The three-year conflict created a huge military force, which grew from 100,000 troops on the eve of the conflict to 600,000 at the end. After the war, the military forces were kept at this level, well-equipped by the United States and increasingly well-trained. In was, in fact, one of the ten largest armed forces in the world."²⁴ Today,

23 Halberstam (2007), 318–19.

24 Seth, Michael J. (2011): *A History of Korea: From Antiquity to the Present*. Lanham. 332.

even a cursory glance at maps of the Republic of Korea show significantly land and resource use is shaped by military deployment, and the publically available information is certainly incomplete. If we add to this the even more extreme impact of militarization and mass mobilization in North Korea, we begin to appreciate the extent that the Korean environment is made by war.

Beyond this, Seth points out how intertwined the Korean War was with the subsequent globalization of some parts of East Asia, saying that the “emergence of an effectively independent, prosperous and democratic Taiwan and the ongoing two-Chinas issue was very much a product of the Korean War.”²⁵ Moreover:

“The United States responded to the war by building a defensive wall around the country, with military bases in South Korea, Taiwan, Japan, The Philippines, and Thailand, and with the ships of the Seventh Fleet of the coast. This led to isolation and a siege mentality that contributed to the path of China’s development for more than a quarter century.”²⁶

The environmental implications of the last statement can be stated more strongly. The attitude toward nature taken by the Mao’s regime, especially the aggressive disregard for questions of natural balance and long-term stewardship of land, air and water resources, emerged from the same political isolation that followed the Korean War. In addition, the globalization of East Asian economies began with US war-related investment in Japan. Speaking of the large orders placed with Japanese companies, Seth quotes, the president of Toyota saying “These orders were Toyota’s salvation, I felt a mighty joy for my company and a sense of guilt that I was rejoicing over another country’s war.”²⁷ In the wake of the Korean War, South Korea followed Japan’s lead, and the peninsula’s environment diverged ever further. The 1950–53 war in Korea was a launching pad for the globalized world we have today. This includes the natural environment shaped by globalization.

This point, if stated in broad terms, is uncontroversial. It has become a commonplace to start indices of this take off toward a human-transformed world at the mid-twentieth century. For instance, when in 2011 the *Philosophical Transactions of the Royal Society* debated the question, *The An-*

25 Seth (2011), 335.

26 Seth (2011), 335.

27 Seth (2011), 335.

*thropocene: A New Epoch of Geological Time?*²⁸ they chose the year 1950 to mark start of sharp, sometimes exponential, increases in all manner of significant indicators, ranging from terrestrial biosphere degradation to fertilizer consumption. Does the fact that the Korean War also started in 1950 mean much in this context? Is this too small a detail to include in such a macro history?

A look at the kind of history that Halberstam relates gives us reason to think that the knowing the story of the Korean War is helpful for thinking about the larger questions more carefully. In particular, Halberstam's narrative can explain why decision makers locked themselves into a full-scale conflict, and why such a conflict would result in both the massive devastation of the environment, as well as the post-war reconstruction in East Asia apart from North Korea that led to our current world economy. Although this story is indeed known, particularly among Cold War specialists, it is not typically integrated into a wider account of the creation of the Anthropocene. Yet, this wider discussion of how current human activity shapes the earth's stratigraphy would only gain from particular knowledge of the wars that literally set the boundaries for where this activity would take place. Consider a few lines from a passage quoted by journalist Thomas Friedman about a geological definition on the Anthropocene:

"Recent anthropogenic deposits contain new minerals and rock types, reflecting rapid global dissemination of novel materials including elemental aluminium, concrete and plastics that form abundant, rapidly evolving *techno fossils*. Fossil fuel combustion has disseminated black carbon, inorganic ash spheres, and spherical carbonaceous particles worldwide, with a near synchronous increase around 1950."²⁹

This increase describes a world shaped by the wars of the twentieth-century, particularly the ones that laid the foundation for the East-West division that dominated the world until 1989. Understanding what happened in East Asia is a central part of this, and hence, histories like the one Halberstam recounts are necessary to show how inextricably this world-changing transformation was bound up with war. At the same time, books like *The Coldest Winter* are incomplete if they are only thought of as a war story.

28 See the charts listed in Steffen W./Broadgate, W./Deutsch, L./Ludwig C. (2015): The Trajectory of the Anthropocene: The Great Acceleration. In: The Anthropocene Review, 2,1, following a 2011 version of the paper by Steffen, et. al. This is reprinted in Grinspoon (2016), 131–32.

29 Quoted in Friedman, Thomas (2016): *Thank you for Being Late*. London. 173.

We need to place it in the context of an ecological transformation. This leads to a final consideration: a recurring motif in Halberstam's is the power of the military to transform. More often than not these transformations are negative, such as the hubris first of MacArthur then of Mao and Peng Dehuai as they moved their *human wave* campaigns south of the thirty-eighth parallel. Yet, despite Halberstam's well-grounded scepticism of military self-promotion and bombast, militaries can change things This is his description of the effect of good leadership on battle troops:

“Commanders were first and foremost in the fear-suppression business; great ones could take the undertow of fear, the knowledge that it was always there, and make it an asset; weaker commanders tended to let it fester. The very same men who will fight bravely under one commander will cut and run under another who projects his own fear. Great commanders are not just men gifted in making wise tactical moves, they are men who give out a sense of confidence, that it can be done, that it is their duty and their privilege to fight on that given day. Thus does the strength of any unit ideally feed down, from top to bottom. The commander generates strength in the officers immediately underneath him, and it works all the way down the chain of command.”³⁰

As a consequence, *The Coldest Winter* shows that troops in the Korean War could sometimes fight with great effectiveness, overcoming severe obstacles. At other times, the opposite took place and much of the macro story of the war's impact depended on the nature of these everyday exercises in organization.

To be sure, in dealing with the enormous transformation of the start of the Anthropocene, with all the severe challenges inherent in it, it may seem like this story is too small or somehow too conventional for inclusion in this larger narrative. However, the historiography of the new *human determined* age in which we are living is intertwined with the story of war. This means we need authors who make vivid the details of war, while allowing us to use these details to add coherence to the larger story. Specifically, a general intuition that life on planet earth began a fundamental transformation circa 1950 has more explanatory power and intellectual gravity if we grasp the full nature and impact of the wars of the period, especially a fateful one like the Korean War. For this reason, it is worthwhile to renew the attention paid to a careful writer like David Halberstam's. His is not *mere* journalism. It is the detailed account we need to

30 Halberstam (2007), 422.

begin showing why the story of the environment and that of war are one and the same.

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<https://www.edge.org/response-detail/27096>.

II. After 1955

Impact of American Large Scale Destruction of Forests on Natural Environment and Ethnic Minorities in South Vietnam during the Vietnam War (1954-1975)

Dam Thi Phuong Thuy / Nguyen Van Bac

1. Introduction

This article aims at investigating the US defoliant warfare in South Vietnam (SVN) during the Vietnam War and its utter devastation over the environment and people in sprayed areas.

Through the American War in Vietnam, the United States (US) Army launched many new technologies. Of those, some contributed to Vietnam's ecosystem change from a once-pristine habitat to an almost apocalyptic after the war. These techniques included toxic chemical deforestation, Rome plows¹ and napalm bombs. Among large-scale destruction of forests, an herbicide spraying program named Ranch Hand lasting between 1962 and 1971 is popularly supposed to be the most destructive. Within the nine years of Operation Ranch Hand, the US Air Force was supposed to spray about 19 million gallons of defoliants² over 20 percent tropical forests and 36 percent mangrove-forests in southern Vietnam. The spraying density

1 Rome plows were large, armoured, specially modified bulldozers used in SVN by the US Military during the Vietnam War. The machine was made by the Rome Plow Company of Cedartown, Georgia. It was simple in design with an eleven-foot wide, two and a half ton blade attached to a 20-ton tractor, but caused massive destruction. A fleet of 150 tractors could remove up to 1,000 acres of land per day. Westing, Arthur H. (1972): Herbicides in War: Current Status and Future Doubt. In: *Biological Conservation* 4, 5. 322–27.

2 Those included several types of defoliants such as Agent Orange, Agent White, Agent Blue, Agent Purple, Agent Pink, etc. In fact, all these chemicals were colourless. People named them after the colour bands on the drums in which each category of chemicals was stored. Letter from Department of Army to John J Carhey Regarding Herbicide Status Report and Maps. In: Texas Tech University, Vietnam Center, Virtual Archive (TTU, VC, VA) 13520101003. 1–2, 11. Effects of Herbicides in Vietnam and Their Relation to Herbicide Use in the United States. In: TTU, VC, VA 2520313001. 7.

reached approximately 37 kg/ha which was equivalent to 17 times the dose used in agriculture according to the guidance of the High Command of the US Army in 1969.³ Of the sprayed chemicals, Agent Orange accounted for approximately 60 percent (11/19 million gallons).⁴ It is evident that Agent Orange contained in herbicides shared a common deadly characteristic, especially a significant amount of an extremely toxic chemical, dioxin. Dioxin can destroy forests, cause exposed people and animals to give birth to offspring with many defects as well as diseases such as lung cancer, blood cancer, diabetes type 2, etc. which can be inherited from parents to children.⁵ So far, at least three Vietnamese generations have suffered the tremendous impact of dioxin reflected by sequelae of physical and psychological health.⁶

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- 3 Buckingham, William A. (1982): *Operation Ranch Hand-The Air Force and Herbicides in Southeast Asia, 1961–1971*. Washington. Hong, Phan Nguyen (2001): *Reforestation of Mangroves after Severe Impacts of Herbicides during the Viet Nam War: the Case of Can Gio*. Unasylnva. Schuck, Peter H. (1987): *Agent Orange on Trial: Mass Toxic Disasters in the Courts*. Harvard. Thăng, Vũ Chiển (2008): *Tác động của chất độc hóa học của Mỹ sử dụng trong chiến tranh đối với môi trường và con người ở Việt Nam (The Impacts of US Toxic Chemicals Used in the Vietnam War on the Environment and Humans in Vietnam)*. Ministry of Natural Resources and Environment. Hanoi. 19.
 - 4 According to the US Academy of Science, 90 percent of the Agent Orange was utilized for forest defoliation; 8 percent was for crop destruction missions; and the last 2 percent was sprayed nearby base perimeters, waterways, cache sites, and communication lines. Report by the Comptroller General of the United States- US Ground Troops in South Vietnam was in Areas Sprayed with Herbicide Orange. In: TTU, VC, VA 6150205010. 5. Effects of Herbicides in Vietnam and Their Relation to Herbicide Use in the United States. In: TTU, VC, VA 2520313001. 6. Project CHECO Southeast Asia Report # 171 – Ranch Hand Herbicide Operations in Southeast Asia – 01 July 1961 to 31 May 1971. In: TTU, VC, VA F031100030169. 16.
 - 5 Young, Alvin Lee (2009): *The History, Use, Disposition and Environmental Fate of Agent Orange*. Springer Science & Business Media. 4. Lê Thị Hòe. *Nỗi ám ảnh chất độc màu da cam (Obsession of Agent Orange)*. Hội Khoa học lịch sử Bình Dương. <http://www.sugia.vn/news/detail/2/noi-am-anh-chat-doc-mau-da-cam.html>. (Accessed 4th February 2017).
 - 6 Hào, Lê Văn/Larsen, Knud S. (2010): *Chất độc da cam và stress liên quan đến chiến tranh: những rối loạn thể chất và tâm lý (Agent Orange and Stress Related to Warfare: the Physical and Psychological Disorders)*. University of Social Sciences and Humanities-Vietnam National University. Hanoi. 3.

There was the fact that majority of ethnic minorities in SVN dwelled in the Central Highlands⁷ which the American strategists considered a strategically important region for the whole of Southeast Asia. As the Vietnam War intensified in the early 1960s, the Central Highlands became one of the main battlefields because the North Vietnamese Army and the Viet-cong⁸ were able to lead a guerrilla war in the rain forests there. For this reason, many villages of the minorities accidentally became targets of the US herbicidal spraying missions.

2. The Ranch Hand Program

As previously mentioned, Ranch Hand is the codename of a defoliant program conducted by the US Military in SVN for almost a decade, since the early 1960s. To prepare for the Ranch Hand project, since 1959, a research agency located in Fort Dietrick held a defoliant rehearsal in Fort Drum (New York). In this practice session, aircraft sprayed the compound of Butyl esters 2,4-D (Dichlorophenoxy acetic acid) and 2, 4, 5-T (Trichlorophenoxy acetic acid) on an area covering 4 square miles. Military scientists found out that a certain amount of chemical 2,4-D could cause sudden, uncontrolled developments in vegetation which quickly led to defoliation. And, a mixture of 2,4-D and 2,4, 5-T was able to defoliate almost immediately.⁹ Based on results of the drill, the US Department of Defence ordered that research institute to set up scheme spraying herbicides in South Vietnam. After the first time, this organization continued to hold 18 other defoliant spraying tests.¹⁰

Before the project got the approval of US President, a fierce debate between the Defence Ministry and the US State Department had been trig-

7 During the existence of SVN (1954–1975), the Central Highlands was a north-western territory of this country. The region consisted of seven provinces of Kon-tum, Pleiku, Darlac, Phu Bon, Tuyen Duc, Quang Duc, and Lam Dong. With a central-Indochinese location and an exceptional altitude, the Central Highlands was considered as "the roof of Indochina" which played a strategic role in controlling not only Vietnam but the whole Southeast Asian region.

8 The term used by the government of SVN to refer to members of the National Front for the Liberation of South Vietnam (NLF).

9 TTU, VC, VA 6150205010. 5. The Story of Agent Orange. [Http://www.usvet-sp.com/agentorange.htm](http://www.usvet-sp.com/agentorange.htm). (Accessed 9th February 2017).

10 TTU, VC, VA 13520101003. 2. Thảng (2008), 119.

gered in the White House. A representative of the Pentagon supported the plan of destruction of crops and trees, which benefited the Northern Vietnamese Army and the Vietcong, by using herbicides. This agency argued that use of defoliants was the most efficient and economic war tactic to deny food and shelter to the communists. Meanwhile, some of the influential figures in the US State Department, notably Roger Hilsman and Averell Harriman firmly opposed to that intention. They doubted the effectiveness of the defoliation tactic, and simultaneously concerned that the campaign could adversely affect relations between the people of Vietnam and the US.¹¹ According to these statesmen, the usage of toxic chemicals could make the US of being accused of conducting a form of war against the ecosystem and humanity. There is no doubt that during the process of spraying herbicides, crops and water sources used by the non-combatant peasants could also be hit.¹² Nevertheless, finally, the arguments of diplomatic representatives fell on deaf ears. The US Defense Department had no hesitation when decided to spray Agent Orange/Dioxin, over 25 percent of SVN's territory.¹³

To justify the use of chemical weapons, in 1961 Washington announced to the world that President Ngo Dinh Diem had requested the US to conduct aerial herbicide spraying in critical areas over SVN.¹⁴ The first flight which sprayed defoliants along the Route 14 in the north of Kontum town was carried out by helicopter H-34 from August 10, 1961, but until early 1962, President John F. Kennedy officially green-lighted the use of herbi-

11 TTU, VC, VA 13520101003. 2. Đinh Chính (2005). Bí mật chiến dịch rải chất diệt lá của Mỹ tại Việt Nam (Defoliant campaign of the US in Vietnam). Vnexpress. March 13. <https://vnexpress.net/tin-tuc/the-gioi/tu-lieu/bi-mat-chien-dich-rai-chat-diet-la-cua-my-tai-viet-nam-2-1979715.html>. (Accessed February 2nd, 2017).

12 Tucker, Spencer (2011): The Encyclopaedia of the Vietnam War: A Political, Social, and Military History. Santa Barbara. 480. In fact, not only civilians became victims, but spraying did occur even over US troop positions. TTU, VC, VA 13520101003. 2.

13 We should not forget that during the World War II, when the US Military proposed to be entitled to use herbicides against the Japanese on some islands in the Pacific, the Supreme Chief Justice at that time was entirely correct to use his veto power for this proposal. According to his view, it was a war crime. Ironically, not long after, that *act of evil* was put into practice in the Vietnam battlefield.

14 Buckingham (1982), iii.

cidal chemicals in SVN battlefield.¹⁵ Triggered the herbicidal sprayings in the SVN, the Americans sought to achieve three following objectives:

- Removing dense forests which had been used as a natural camouflage layer of Vietcong guerrillas and the Northern Vietnamese Army;
- Creating *no man's lands* of hundreds of meters wide around military bases. Those vacant zones were to enhance observation of communist guerrillas' activities and to lessen the potential for ambush;
- Destroying crops to cut off food supplies of the enemy forces.¹⁶

After spraying herbicides, US forces continued to drop napalm¹⁷ to burn down wherever they deemed necessary to be destroyed. This brutal war tactic devastated many dense jungles in SVN. Furthermore, the high temperature of napalm also created secondary dioxins in areas sprayed with defoliant substance containing 2,4-D and 2,4,5-T.¹⁸

On the battlefield of Laos, US defoliantes were also used to devastate all forests in which transport networks, as well as the communist forces, were hiding.¹⁹ It was thought that burning forests would make the Liberation Army lose their hideouts and quickly be attacked from the air. Therefore, all suspected bases of Northern Vietnamese troops and the Vietcong were sprayed with herbicides densely and repeatedly.

Because the use of Agent Orange was inhuman, this tactic also could be considered illegal in the US and was hardly accepted by any American al-

15 King, Pamela S. (2010): *The Use of Agent Orange in the Vietnam War and Its Effects on the Vietnamese People*. Washington. 12.

16 Together with using herbicides, since early 1962 Diem government began deploying the Strategic Hamlet Program with the tactic of *slapping the water to catch fish*. With these efforts, Saigon wished to isolate the communists and pacify SVN within 18 months according to the Staley-Taylor operational plan. Young (2009), 98. TU, VC, VA 13520101003. 2. TTU, VC, VA 2520313001. 4. Department of Defense (DOD) Herbicide Orange Status Report. In: TTU, VC, VA 2520210005. 1.

17 This adhesive material was dispersed onto plants and ignited quickly. It burned as potent as gasoline and destroyed all nearby vegetation in a while. It is calculated that Napalm-B used in the Vietnam War could heat at about 850 degrees centigrade and burn up to 15 minutes. Victims of napalm attacks usually had little defense and died not only by burning but also from asphyxiation caused by carbon monoxide poisoning. This new type of bomb was responsible for the destruction of much of the landscape. Tucker (2011), 788–789.

18 Thăng (2008), 120.

19 Buckingham (1982), iv.

lies. The base of the Ranch Hand Program was secretly built next to Unit 62 of SVN Air Force at Nha Trang Air Base and was given a disguised name, Air Force Unit 14. At first, to avoid responsibility, aircraft of the US Air Force, those conducted chemical spraying missions always painted the flag of the Republic of Vietnam; pilots got the order to wear plain clothes when flying.²⁰

The White House also pushed responsibility to the government of SVN by asking President Diem to declare that “herbicide usage is harmless to human health.” And, “Herbicides spraying was the most effective measures” to cut off the food supply to the Northern troops and the Vietcong; then to gain control of mountainous areas and countryside.²¹ The SVN government disclaimed all information related to congenital disabilities appeared in the Saigon presses. Authors of those articles were alleged to be communist sympathizers. Complaints about dangerous diseases from peasants were also disregarded. Soldiers reported to doctors about symptoms of skin burns, headache, vomiting, and many other signs of exposure to toxic substances, but they all got the same answer that their illness was unrelated to the sprayings of herbicides.

To conduct defoliated missions, US Air Force used aircraft as C-47, T-28, B-26, and C-123. The 12th Air Commando Squadron, which was established with six planes, was assigned to implement defoliant sprayings. At the peak of the Ranch Hand Project in 1969, the number of aircraft equipped the special squadron increased to 25. In some cases, herbicides were sprayed from motor vehicles and also hand sprayers by soldiers. However, these methods only accounted a modest proportion of about 10-12 percent of defoliants.²² In terms of personnel and facilities, that program was a part of the US Air Force campaign in Southeast Asia named Trail Dust.²³

Chemical sprayings were mostly conducted in the early morning. At that time, the air was usually quiet and in high humidity, so the toxic

20 Thăng (2008), 121.

21 Cecil, Paul Frederick (1986): *Herbicide Warfare: the Ranch Hand Project in Vietnam*. Santa Barbara. 13.

22 Declaration of Mr. Richard S. Christian (Re: Civil Action No. 90-1808 SSH and 90-1809 SSH- The American Legion against Derwinski and Vietnam Veterans of America against Derwinski). In: TTU, VC, VA 6110209016. 5-6. Hào/Larsen (2010), 3.

23 TTU, VC, VA F031100030169. 12.

chemicals often fell to predetermined coordinates correctly. By noon, when the temperature of a day reached its peak, herbicides would culminate with their most destructive power. A squadron sprayed toxic chemicals usually had 2-3 aircraft. To avoid fire from the ground, pilots often flew very high before reaching targets. Once approaching objectives, the planes suddenly descended, and within several minutes they discharged entire of chemicals to ground through nozzles designed at side wings.

Aerial Herbicide Spraying in Southern Vietnam



Source: Agent Orange Record, Associated Press/Worldwide Photos²⁴

Soon after the news about U.S aerial herbicide sprayings in SVN was disclosed, a high wave of protests broke out and quickly spread worldwide. The human right and environmental activists required the US administration to halt the Operation Ranch Hand immediately. One article by journalist Richard Dudman published in the St. Louis Post-Dispatch accused the US and Saigon government of using “a dirty war tactic” against North Vietnam. The protest movement was considered reaching its peak in early 1967 when scientific advisors of the US President received a petition signed by more than 5,000 scientists including 17 Nobel Prize winners and 129 members of the National Academy of Sciences. They urged President Johnson to stop using toxic chemicals as lethal weapon and to destroy crops in SVN.²⁵ In the meantime, the US Senate was debating over the adoption of the Geneva Convention on banning the use of chemical and biological weapons in warfare.

24 http://www.agentorangerecord.com/agent_orange_resources/photos/cateo_ry/collection_2/. (Accessed 20th February 2017).

25 Thăng (2008), 124.

Under the pressure of international public opinion, since the end of 1969, the toxic chemical spraying squad was ordered to reduce 30 percent of its activities despite the efforts of President Nixon.²⁶ Not long later, aerial spraying performed by C-123 aircraft on 07th January 1971 above rice fields in Ninh Thuan province marked an end of the US herbicidal warfare in Vietnam after a proximately one decade of operation.

3. *Impact of the Operation Ranch Hand on the Minorities in SVN*

According to the accurate statistics, together with Agent Orange, 15 other herbicides were sprayed on approximately 25 percent of the land surface of SVN in the Ranch Hand Programme. These chemicals destroyed 260,000 hectares (8 percent) of agricultural land in South Vietnam. The defoliants sprayed on farmland also damaged immediately over 300,000 tons of food. Besides, about 30 percent of 135,000 hectares of rubber plantations were destroyed.²⁷ In addition, it was estimated that 20 percent tropical forests and 36 percent mangrove forests together with hundreds of plant species were among the victims of the defoliants; at least of 20 million cubic meters of timber were damaged.²⁸ The destruction was so great that environmental activists used the terms *ecological warfare* and, then, *ecocide* to refer to it; or as commented by Arthur H. Westing, “the Vietnam War of 1961-1975 stands out as the archetypal example of environmental war-related abuse.”²⁹

Studies conducted on laboratory animals pointed out that dioxin were extremely toxic even in tiny doses. Human exposed to the chemical could associate with serious health issues such as muscular dysfunction, inflammation, congenital disabilities, nervous system disorders and even the development of various cancers. To plants, within two to three weeks of

26 President Nixon supported the ratification of the Geneva Convention but wanted to ensure that it would not apply to the defoliants and other “chemicals counterinsurgency.” Chinh (2005).

27 Thăng (2008), 128. & TTU, VC, VA 2520313001. 12.

28 TTU, VC, VA 2520313001. 4.

29 Westing, Arthur H. (ed.) (2002): Long-Term Consequences of the Vietnam War, Ecosystems, Report to the Environmental Conference on Cambodia-Laos-Vietnam. Stockholm. 2–4.

spraying, the leaves should drop down, and the trees themselves would remain bare until the following rainy season.³⁰

With dense forests in SVN, about 10-20 percent of plants belonged the top floor (representing 40-60 percent of forest biomass) died shortly after a single spray run. In order to defoliate the lower stories, one or more follow-up sprayings would be needed. The defoliated top floor led to changing the climate in lower storeys. When humidity reduced, the light intensity increased, young trees might survive but were difficult to develop well and could be burned during the dry seasons by fire generated by bombs or slash-and-burn cultivation method. Once the rainy season came, soil erosion was leading to gradual degradation. Only a few light-demanding species or plants with developed strong roots withstood the arid environment could grow in sprayed areas.

In the US, since 1963, i.e., only two years after President Kennedy approved the use of Agent Orange in SVN, the US Army reported an increased risk of skin conditions (chloracne) and respiratory infections. In the same year, the President's Science Advisory Committee reported to the Joint Chiefs of Staff on the possible health dangers of using these chemical compounds.³¹ It is believed that these toxins could cause up to 28 different diseases to humans. However, it took decades since veterans from both sides made their first claims, the US government half-heartedly acknowledged responsibility; though, only for US veterans, so far.³²

In Vietnam, doctors began recognizing unusual symptoms while treating for veterans who had been exposed to toxic chemicals on battlefields. In this group, diseases such as hepatitis, kidney failure, various kinds of cancer, diseases caused by declining immunity, and severe diarrhoea occur in much higher frequency than other patient groups. Veterans' wives also claim that they miscarried repeatedly. Their children were born prematurely or born with defects. And, a significant increase in infant mortality rate has also reported.³³ In contaminated areas, doctors reported that the rate of

30 Hao/Larsen (2010), 5.

31 King (2010), 15.

32 US veterans made the first compensation claim in late 1977. Until the end of September 1979, about 4,800 people requested treatment for herbicide-related health problems. TTU, VC, VA 6150205010. 5–6. See also Bruce Falconer (2009): Agent Orange: Treatment for Vets still lagging. In: Mother Jones. Monday, June 1. <https://www.motherjones.com/politics/2009/06/agent-orange-diagnosis-and-treatment-badly-lagging-says-report/>. (Accessed February 2nd, 2017).

33 Dreyfuss, Robert (2000): *Apocalypse Still*. Mother Jones. San Francisco. 2.

defects was 2.4 percent compared with 0.6 percent of the reasonable rate in other regions.³⁴

In 2008 Vietnam's Ministry of Health compiled a list of 17 diseases and deformities related to dioxin exposure including Soft tissue sarcoma, Non-Hodgkin's lymphoma, Hodgkin's disease, Lung and Bronchus cancer, Tracheal cancer, Larynx cancer, Prostate cancer, Primary liver cancer, Kahler's disease, Acute and sub-acute peripheral neuropathy, Spina Bifida, Chloracne, Type 2 Diabetes, Porphyria cutanea tarda, Unusual births, Birth defects, Mental disorders.³⁵ Vietnam also reported that about 4.8 million people affected by Agent Orange, some 500,000 children with birth defects, and 2 million others with cancer and other illnesses related to defoliants used during the wartime.³⁶

Although ethnic minorities in SVN were not interested in the war spread in their traditional territory, they have suffered considerable impacts of herbicide spraying. According to the environmental activists, of the upland forests sprayed, the hardest hit were dense forests of Ma Da (Dong Nai), Phu Binh (Binh Phuoc), Sa Thay (Kontum), A Luoi (Thua Thien Hue), along Route 19, and localities settled along the Ho Chi Minh Trail where weapons and other supplies from the North were supposed to be transferred to the South. Besides were rainforests surrounding War Zones D and Boi Loi (Tay Ninh) of the NLF.³⁷

Habitat destroyed by herbicides and the war in general also affected wild animals profoundly. Many individual animals died of starvation, lack of refuge or drinking contaminated water. The results of ethnographic surveys carried out by Gerald Hickey reveal that after each single aerial chemical spraying many tribesmen living in Kontum found a lot of wild dead animals in the woods near their home. The remaining natural beings had to flee to other places; even the living conditions there were not utterly favourable to them.³⁸

34 Hào/ Larsen (2010), 12.

35 Martin, Michael F. (2008): Vietnamese Victims of Agent Orange and US-Vietnam Relations. Congressional Research Report RL34761, November 21. Washington. Son, Lê Kế (ed.) (2011): 50 câu hỏi & đáp về chất độc màu da cam/dioxin (50 Questions & Answers on Agent Orange/Dioxin). Office of the Steering Committee No. 33 – Ministry of Natural Resources and Environment. Hanoi. 10–11.

36 Dreyfuss (2000), 2. Hào/Larsen (2010), 8.

37 Son (2011), 8–9.

38 Hickey, Gerald Cannon (1982): Free in the Forest: Ethno History of the Vietnamese Central Highlands, 1954–1976. New Haven. 255, 314.

The fact is after the Operation Ranch Hand, a ragged, impoverished ecosystem entirely replaced the previous vibrant rainforest ecosystem in SVN. In new re-growing forests, shrubs and bamboos became excellent hiding places for rats and mice, earlier rare to these forested areas. The popularity of these rodents in the post-war period caused damage to crops and spread diseases out. Natural enemies of rats as civets, and foxes existed with a low number over sprayed areas. Their fecundity, on the other hand, could not compare with which of the rodents. Overall, herbicides caused the severe ecological imbalance in many forested regions over South Vietnam.

According to Hickey, most victims exposed to toxic chemicals reported abdominal pains and diarrhea, with vomiting, respiratory symptoms and rashes also developing. A few said that they experienced dizziness. Some witnesses confirmed that there were many unusual deaths, especially among children following sprayings. Children who exposed to dioxin often covered in rashes and died shortly after the onset of illness. Additionally, significant of respondents reported about the abnormal increase of deaths among domestic species, especially chickens and pigs.³⁹

After being sprayed, dioxin not only directly caused the destruction of trees, animals, and humans but penetrated into the soil and groundwater resources. It then somehow became part of the food chain. Agent Orange devastated local agriculture and the harmonious relation between people and the environment within contaminated regions. Once humans ate plants or animals infected with dioxin, this toxic chemical would begin accumulating in fatty tissues. According to the scientists, at low concentration, some of the dioxins have the short half-life and can be degradable in 5 to 10 years. However, at more significant levels, it needs much more time for dioxin to decompose. When this chemical was absorbed into the earth, the time required for it to be detoxified increase significantly, up to decades.⁴⁰

Local people also revealed that in contaminated regions, trees withered and died after being sprayed defoliant a few weeks; fish also died and floated on the stream. All Montagnards ate the dead fish getting diarrhoea. Most of the crops were destroyed. Some remaining paddy fields though were not burned but could not produce rice effectively as pre-war periods. Similar to poisoned fish, vegetables survived following spray missions

39 Hickey (1982), 255.

40 TTU, VC, VA 13520101003. 3.

caused diarrhoea, respiratory failure, or some other strange diseases for consumers. Many victims died after a few days of being infected, most of them were children.⁴¹ Deforestation, thus, directly led to the shortage of traditional food sources which came from hunting and gathering methods. Besides, some of the watershed forests along Annam Cordillera (Vietnamese: Trường Sơn-Tây Nguyên) destroyed by herbicides resulting in the decline in their functions of water retention and flood protection. This not only made the soil dry out in sprayed areas but indirectly caused flooding for downstream regions during the rainy season. All of those consequences somehow contributed to the minorities' poverty during and after the war.

Together with causing environmental destruction, defoliant sprayings and bombings also destroyed many villages and cultivated lands belonging to the minorities. To avoid harm inflicted by American lethal weapons, Highlanders in contaminated zones had to evacuate to the border between SVN and Laos or to less dangerous zones. Their old villages then were deserted, and the land would no longer be cultivated. Also, the fire traditionally used for slash-and-burn cultivation, even to cook now was limited to avoid being located and targeted by the US and SVN Air Forces. This situation worsened the uncertain and insecure living condition of the ethnic minorities.⁴²

Along with the physical damage, Vietnamese victims of Agent Orange and their families also have been suffering psychological pain. Those families, from their cultural beliefs, have been subjected to torment. Parents blame themselves that they might do something sinful in the previous lives and now their offspring receive punishment instead of them. In minority regions, it is commonly believed that children in a community born with defects because someone in their village had insulted the gods. The pain would be much more significant when the next children, to whom the exposed parents try to give birth, also suffered deformities like their older siblings. Many parents gave birth several times, but none of their children survived at all. This means they will have no one to continue the family line, worship ancestors, and care for their old age. Thus, besides physical

41 Hickey (1982), 255, 313–14.

42 Robert, Amélie (2016): At the Heart of the Vietnam War: Herbicides, Napalm, and Bulldozers against the A Lưói Mountains. *Journal of Alpine Research/Revue de géographie alpine*, 104–1. 13.

damage, the pressure from culture also contributed to the refractory pain of Vietnamese Agent Orange victims.⁴³

4. Conclusion

It is over a half-century since chemical warfare in SVN was carried out but the wounds it left for the Vietnamese environment and people still unhealed. Or, as a French environmental activist commented: the usage of herbicidal compounds containing the high level of dioxin in SVN was a grave violation of human rights, a war crime, a crime against the environment and people, even a gradual genocide. It has become one of the biggest forgotten tragedies of the (20th) century.⁴⁴

In the effort to overcome war consequences, for years the government of Vietnam has issued many national action plans to remediate of Agent Orange/Dioxin over the particular periods. Accordingly, some wide-ranging investigations have been conducted. The authorities also deployed programs aiming at handling contaminated lands or preventing the toxic chemicals from spreading. This country has been attempting to mobilize various domestic resources as well as collaborate with many international organizations to assist victims of Agent Orange in improving their livelihood, medical care, education, etc.

Despite the abundant evidence relating harmful effects of herbicides provided by scientists and veterans, the US National Academy of Sciences President, Philip Handler, concluded that there was no cause and effect relationship here.⁴⁵ According to him, the investigation committee had been “unable to gather any definitive indication of direct damage by herbicides to human health.” And, though declared that the information on the destruction of herbicides should be re-verified, the National Academy of Sciences has not shown any attempt to visit Vietnam to reappraise the words of the Montagnards recorded in researchers’ reports.⁴⁶

43 Hào/Larsen (2010), 9–10.

44 Bouny, André (2007): The effects of Agent Orange and its consequences. Global Research. <http://www.globalresearch.ca/the-effects-of-agent-orange-and-its-consequences/4490>. (Accessed 10th February 2017).

45 Hickey (1982), 308–319. Pentagon ignored Agent Orange warnings. <http://www.vavadanang.org.vn/index.php/en/archives/item/61-pentagon-ignored-agent-orange-warnings>. (Accessed 16th February 2017).

46 Hickey (1982), 256.

On 31st January 2004, the Vietnam Association of Victims of Agent Orange/Dioxin (VAVA) sued the manufacturers whose toxic chemicals were used in the Vietnam War at the First Instance Law Court of American Federal Justice. After the case had been vetoed, VAVA continued filing the appeal to the Court of Appeal on 30th September 2005. There, the defense lawyers for 37 American chemical companies argued that Agent Orange was produced to protect US troops. Since then, not any judgment of the court about an official apology or compensations for victims of Agent Orange in Vietnam has been given. The story of the journey to find justice for those victims, therefore, has not come to an end yet.

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The system of Dykes and Water Resources of North Vietnam under the Impact of the American Air and Naval Attacks (1965 - 1972)

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1. Introduction

Although the Vietnam War (1954 - 1975) ended more than 40 years ago, its historical factors still remain an interesting theme for scholars, however. Added to its political, military and diplomatic issues that have been researched for years, the other impacts of that war on social life and environment of both North and South Vietnam can be also seen as one of the central problems. Even during the warfare, public opinion and peace-loving forces around the world strongly opposed the use of dioxin and other defoliants scattered over South Vietnam to destroy enemy's refuges. This has seriously affected the ecological and human environment in those areas as well.

However, on the other hand, the American employment of air and naval forces expanded the war to North Vietnam after the Gulf of Tonkin incident (August 1964) to suppress the massive backing in both material and spirit to the South quickly become a matter of international interest. In addition to attacking military targets, the US air and naval forces also attacked transportation systems, irrigation facilities and sometimes public facilities such as hospitals. This was a serious threat to the economy, the life and safety of the people of North Vietnam at that time. Within the limited scope of this study, we can only attempt to analyse the effects of US air and naval attacks on dykes and water resource systems in North Vietnam, mainly in the Red River delta during the most intense period of the war from 1965 to 1972.

Our research results are derived from the exploitation of the archives and other holdings currently stored at the National Archives Centre III (Hanoi), and the newspapers published in North Vietnam during that time. Based on the arrangement, collation and statistics we will try to give a systematic and comprehensive view of the research issue. Besides, it is also

interesting to refer to the work of previous scholars as well as give us a complete and objective view on this interesting subject.

2. The Role of Water Resource Systems in Eco-Social Life of North Vietnam

2.1 The Irrigation Situation of North Vietnam Prior to 1945

For the ancient Eastern nations in general, the need for water has become an important precondition for promoting state formation. Born mainly in the river basins, the selection of wet rice cultivation as the main economic sector has required these countries to be particularly interested in irrigation. The first primitive state in the Vietnamese territory - the Van Lang state was formed on that basis. From the very early days, Van Lang residents have learned to take advantage of the tide's rise and fall to regulate the water supply for agricultural production.

Falling under the Northern domination period, the experiences of water management in the North has been gradually introduced into the country. By the 9th century, history books recorded the Cao Bien ordered people to embank dykes surrounding the city of Dai La to fight against floods. By the independence period, monarchies in Vietnam have been always aware of the role of irrigation for the survival and development of the country. In the official historical records of the dynasties, it is very common to see the reports of the flood situation, natural disasters as well as the response of the monarchies in each historical period. Under the Ly dynasty, when the capital was moved to Thang Long, the court paid particular attention to the construction of dykes to protect the capital. Because Thang Long is the place of confluence between the rivers, at the same time, the terrain surface is slightly low and flat so it is easy to accumulate water when floods occur. Experiencing the variation of history, subsequent monarchical dynasties were regularly interested in irrigation works, especially the embankment to prevent floods. With the expansion of the country's territory to the East and South, coastal embankments are also concerned to prevent saline intrusion affecting crops. Along with that, the regulations on flood prevention and dyke protection have gradually been documented in the laws of the state as well as the regulations in village conventions. The story of the embankment of water in the Red River delta took place until the Nguyen Dynasty ascended the throne and unified the country in 1802.

Originated in Tonkin, but after a long ruling and construction of the Southern part from a landless, deserted land into fertile plains, the Nguyen's Kings seemed too familiar with the method of water management by streams, and flood drainage of the South. Water management in the South concentrated on open canals to drain the floods, while in the North of Vietnam embankment is used as a major weapon to combat natural disasters. Therefore, during the early rule of the country, the Nguyen was embarrassed in the problem of water management in the Northern Delta. Keeping or maintaining dykes became a hotly debated topic that attracted the attention of imperial officials and localities. After a period of trial of both options, the Nguyen eventually returned to embankment to prevent floods.¹ However, the lack of unity and assertiveness of the Nguyen in the work of water management left a significant impact on the socio-economic life of North Vietnam and partly weakened the internal forces of the country in the course of resistance against the threat of French colonialism in the mid-19th century.

The Vietnamese economy and society changed dramatically following the policies of two French colonial exploitations in the early 20th century. At the same time, irrigation systems are also of particular interest in establishing infrastructure that attracts French capitalists to invest in the agricultural sector. This includes macro-level policies such as planting watersheds to prevent floods, establishing reservoirs, and embankments. Even so, floods have still become a serious and permanent threat to the social life of North Vietnam at that time. According to researcher Pierre Gourou in his study entitled *Farmers in Tonkin Delta* in the first 30 years of the 20th century, dyke breakdowns occurred regularly around every two or three years.² The strenuous conditions of the farmers who protected the dykes and the attitudes of local authorities have been partly reflected in some novels also. Until 1945, the experience of water management of the Vietnamese people has a tradition of thousands of years, but that does not mean the advancement of technical level or the proud achievements of water management in this country. People still feel that dyke breakage and the risk of floods are still stalking, threatening the lives of people in the

1 See also: Do Duc Hung (1997): *The Problem of Water Management in the Northern Delta in the 19th Century under the Nguyen Dynasty*. Hanoi.

2 Pierre Gourou (2003): *Farmers in Tonkin Delta*, *Vietnamese Association of Historical Sciences*, École française d'Extrême-Orient. Hanoi. 79.

Red River delta. Additionally, it should be noted that this is not the main cause of the famine in Vietnam in 1945.

2.2 Water Management in the North of Vietnam from 1945 to 1965

The days of August 1945 not only left a mark on the hearts of the Vietnamese people because of the boom of *August revolution* but also unforgettable memories of the historic flood in Northern Vietnam.³ And we also need to take note of the fact that, due to this flood, the orders of the Uprising Committee did not reach some localities and Vietnamese people in some places have actively acted according to the previous order named *Japan - France Shooting and our actions* issued by the Standing Committee of the Central Indochinese Communist Party to rise up the insurrection and seize power. The floods severely affected the dyke system that paralyzed the intersection system, causing the revolutionary leadership of the revolutionary headquarters in the Northern mountainous midland provinces to face many difficulties:

“After Japan declared surrender, due to rising floodwaters, the dyke system in Red River delta was ruptured in many places causing flooding in many provinces in the delta. Due to the interruption of communication, most of the provinces in this area did not receive the order of general uprising from Tan Trao.”⁴

Right after the success of the *August Revolution*, the revolutionary authorities were built up in different provinces. One of the central problems of the revolutionary government at the time was to overcome the aftermath of the historic flood and to consolidate the dyke system. On October the 11th, the provisional government held a plenary session discussing on dyke reinforcement by spending its treasury and calling for contribution and labour to mend the dykes before the flood season of 1946 came.⁵

As we can see, right after from the very beginning of the newly established government of the Democratic Republic of Vietnam, the state leader Ho Chi Minh quickly embarked on overcoming the aftermath of the historic flood, at the same time, developed the dyke system in the Red River

3 Phan Khanh/Tu Mao/Nguyen Gia Quang (1995): *Dykes of Vietnam*. Hanoi. 147.

4 Phạm Hồng Tung (2014): *The history of the August Revolution 1945 in Vietnam*. Hanoi. 199.

5 Phan Khanh (et al.) (2014): *History of Vietnam's Water Resources*. Hanoi. 249.

delta. However, until the end of 1946, when the nation entered the new resistance, the results of that water management course were not clear enough. The Ho Chi Minh government returned to the Viet Bac to lead the country's resistance. Therefore, water management in general and in the Red River delta was not in favourable conditions to be concerned.

In 1954, the signing of the Geneva agreement marked an end of the French War. The country was divided into two regions, and the 17th parallel was selected as the temporary boundary. In that situation, from 1955, North Vietnam carried out a three-year plan to heal the wounds of war (1955-1958) in which the prevention of floods and storms was paid special attention, for instance, "in 1956, the amount of embankment reached 17.735.000 m³."⁶ However, the breakdown of Mai Lam dyke (Hanoi) still showed serious limitations of water management in North Vietnam at that time.

The 8th session of the National Assembly of the Democratic Republic of Vietnam in 1958 decided to split the Ministry of Water Resources and Architecture into two separate organs, the Ministry of Water Resources and the Ministry of Agriculture. Since then, the irrigation works in the North Vietnam have been upgraded. Preliminary many meetings on flood and storm prevention were regularly held. However, the work of dykes in the years 1958-1960 in North Vietnam has not really had countably breakthrough developments. In the first five years of the economic development plan of North Vietnam (1961-1965), the irrigation works were considered in the direction of more modernization and larger scale. Nevertheless, due to the fact that the state policies on irrigation have not been thoroughly grasped, the whole irrigation work in the North encountered severe problems.

Thus, it can be seen that, throughout the long history of the nation, water control has become an everlasting necessity of direct and substantial influence on the survival and development of the country, especially of the Red River delta. Governments that might differ in institutional terms, but they all regard irrigation as a key and frequently-cited task. However, the reality is that the water management in North Vietnam until the onset of US air and naval assaults was not systematically built up. Safety was guaranteed only in the narrow margin and quickly impotent to the abnormal

6 Phan Khanh/Tu Mao/Nguyen Gia Quang (1995), 160.

nature. The problem of fighting floods seems to have been ingrained in the subconscious mind of the people in the Red River delta.

3. *The American Air and Naval Attacks in North Vietnam (1965-1972)*

Regarding the conspiracy of mass murder of the American imperialists, it is important to emphasize in particular the US's strategy to destroy the dyke system during the rainy season, in order to make millions of people die of floods and hunger. One American journalist, I.F. Stone criticized in his own independent newsletter called *I.F. Stone's Weekly* on July 12, 1965:

“bombing the huge dykes in the North of Hanoi would produce the same result as a hydro bomb; the entire area of the delta would be flooded, summer rice crops therefore would be destroyed, and then, from 2 to 3 million people would be drowned by the breakage of the dyke.”⁷

From March 1966, the chairman of the Joint Chiefs of Staff, E.G. Wheeler and top generals in the council made an appeal to expand an “open air war against North Vietnam” and directly mentioned the intention of destructing the dyke system that, as a result, would destroy the grain production.⁸ In fact, US air and naval attacks in the years 1965-1972 severely affected the irrigation system of North Vietnam, which was originally vulnerable. In the economic term, the damage of dykes actually caused the abnormal agricultural production and affected the distribution of labor resources for production in many parts of the Red River delta.

From around February 1965 onwards, the US air force and naval attacks began with bombing operations near the demilitarized zone. The initial attack was limited to the south of the 20th parallel, which rapidly escalated to attack targets in all parts of Northern Vietnam. In 1966, the attacks gradually turned into targets of major cities and by 1967, the US air force attacked targets near the Vietnam-China border. The US focused on destroying the industrial and transportation facilities in the hope of destroying the economic and defence potential of the North, preventing the

7 Cited accordingly to the Report on the Genocide of the American imperialists in North Vietnam by the Investigation Commission for the American Imperial War Crimes in Vietnam, October 1967. Records in the National Library of Vietnam, VL68.00001.7.

8 The Unforgettable American Crimes (1966). Hanoi. 148a.

North's relief road for the resistance of the people in the South. According to statistics from 1965 to 1968, US air and naval forces threw and dropped over 700.000 tons of bombs and more than 740.000 artillery shells in Northern Vietnam. In those bombings, the transportation system was hit the most with 94.561 arrivals, accounting for 52.3 percent of the total number of targets.⁹

Right from the first raids, dykes and irrigation systems soon became targets for the US air force. According to statistics, in 1965, US aircraft attacked irrigation works more than 500 times¹⁰ and bombarded on the important dyke sections 78 times.¹¹ The pace of US air and naval raids continued to rise constantly. In 1966, the bombardment to destroy the dyke system was intensified and focused on the months of July, August and September when floodwaters rose. As of 1967, the US air and naval force had set more 368 additional targets, including 177 dykes, 48 dams, 18 pumping stations, 116 drains, 15 water troughs and 4 water reservoirs.¹² US air and naval forces targeting North Vietnam ended only when the Tet Offensive and some uprisings in the South Vietnam (1968) intensified and gained enormous results, forcing the US to sit at the Paris negotiating table to find a peaceful solution for Vietnam.

The attacks of the US air and the naval forces have severely affected the situation of irrigation in particular and the development of agriculture of the North in general. As mentioned above, despite efforts but in the context of economic difficulties and striving for unification of the country, irrigation works in North Vietnam did not significantly develop. The main water management measures are incidental, dealing with the incidents but

9 The Steering Committee on Reviewing War under Political Bureau (2000): Vietnam's Revolutionary War 1945 – 1975: Victory and Lessons. Hanoi. 514 – 518.

10 National Archives Center III, Investigation Commission for the American Imperial War Crimes in Vietnam: A Criminal Investigation of the American Imperialists that Destroyed Irrigation Works and Dykes in Northern Vietnam from March 1965 to December 1966, Dossier No. 45, sheet 3.

11 National Archives Center III, Investigation Commission for the American Imperial War Crimes in Vietnam: A Criminal Investigation of the American Imperialists that Destroyed Irrigation Works and Dykes in Northern Vietnam from March 1965 to December 1966, Dossier No. 45, sheet 5.

12 National Archives Center III, Investigation Commission for the American Imperial War Crimes in Vietnam: Announcement No. 110 / UBBDT of the Investigation Commission for the American Imperial War Crimes in Vietnam on the American Crimes in North Vietnam in 1967, Dossier No. 63, sheet 73.

not really a remote prevention solution. Therefore, the flood risk in the North is permanent, especially because of the complicated happenings of weather in North Vietnam during this period. As a result, the US air attacks on irrigation and dyke systems have made the problems of water management more difficult. A series of irrigation works and dyke sections must be repaired after each raid. As time went on, the US air force concentrated more on the focused targets, the recovery work thus required more efforts.

To a larger extent, agricultural activities in the North Viet Nam directly influenced by irrigation became more complex. It is historically reported that the farmer's yearly fruits were blown away after a major flood and this was still a topical event in Northern Vietnam in the 1960s. Therefore, during the period from 1965 to 1968, paddy production of North Vietnam had a certain decline from 5562 thousand tons in 1965 to 4628.6 thousand tons in 1968.¹³ The area of rice cultivation in the North also declined from 2397.6 thousand hectares in 1965 to 2079.5 thousand hectares in 1968.¹⁴ And then the yield of rice also dropped from 18.96 quintals per hectare in 1965 to 17.82 quintals per hectare in 1968.¹⁵ This consequence is undoubtedly rooted in the weakness of the dyke system, which was heavily damaged during US air raids.

More seriously, the American bombings had a very serious impact on the daily life of the population of North Vietnam at that time. The number of casualties was constantly reported by the *Investigation Commission for the American Imperial War Crimes in Vietnam*. However, the cause of these casualties is not primarily from the direct bombardment of dykes and irrigation systems because of the following reasons: firstly, in the history of land exploitation, the people in the Red River delta have had less congregation, and formed the villages that cling to dykes and canals as commonly seen in the Mekong River delta. Villages are often located inside and relatively isolated from the dyke system to ensure the safety needed when an incident occurs. So, the effects of the American bombardment on the population and the daily life of people are relatively faint. Human casualties were mainly the people working with the maintenance and operation of irrigation works. Secondly, it proved true of course that urban ar-

13 General Statistics Office of Vietnam (2004): Statistical data of Vietnam in the 20th century. Hanoi. 284.

14 General Statistics Office of Vietnam (2004), 286.

15 General Statistics Office of Vietnam (2004), 287.

eas, hospitals and schools, which are populated places, have been identified as early targets for air and naval bombardment in the North of Vietnam. Many evidences related to the US imperialist massacre of innocent civilians in the North of Vietnam were publicly noticed. However, this is a very interesting topic that will be discussed in detail in another study in the near future.

However, the attacks of American imperialists in North Vietnam in general had a certain impact on the lives of the people of the North at that time. A large number of educational institutions, hospitals and residents were forced to leave the urban areas and densely populated areas to evacuate to the countryside in order to live, learn and continuously fight. People in the areas where the dyke systems and irrigation works were attacked were mobilized to take part in dykes recovery work after the bombings ended and, in certain cases, there are human casualties when US air forces repeatedly attack critical dykes as a records proves:

“throw bombs to destroy dykes and irrigation works, then continue to raid to prevent them from being prepared repairs and killed the workers are tricks that the American imperialists often use... For example, on March the 23rd, 1967 they threw 52 bombs destroying three dyke sections, killing and injuring 30 civilians.”¹⁶

4. The Fierce Bombardments in 1972

North Vietnam gradually returned to normal socio-economic activities after the US declared a cease-fire in 1968. The people of Northern Vietnam made continuous efforts to restore and develop production in the following years. However, the historic flood in 1971 swept away previous achievements and posed a big question for the irrigation work in North Vietnam that year. The entire North was flooded; disaster recovery work took several months. This led to a decline in paddy output in the North in 1971 reaching 4920.9 thousand tons compared to 5275.9 thousand tons in 1970.

And when the battle on the diplomatic table became tense and went into a standstill, the military triumphs on the battlefield will help the party

16 Report on the Genocide of the American Imperialists in North Vietnam by the Investigation Commission for the American Imperial War Crimes in Vietnam, October 1967. Records in the National Library of Vietnam, VL68. 00001. 8.

prove its true power. Parallel to the South Vietnamese Liberation Army's assault on Quang Tri, the US began to restart its escalation of attacks in North Vietnam in early 1972. However, the intensity and scale are noted to be much more intense. It seems that recognizing the heavy losses of the historic flood in 1971, the US air force focused primarily on the rapid attack on irrigation works and the newly constructed dyke system in particular. Between April and August 1972, the US air force carried out 198 times of attacks damaging 72 dykes and 35 irrigation works in Northern Vietnam.¹⁷ Particularly, many dyke sections were attacked several times in a short period. It should be noted that, however, during the US air and naval attacks on North Vietnam, the irrigation system was not the only military target but destruction of the Northern economy also. In the last days of 1972, *in the final game*, President Nixon decided to select large populated cities as central targets in order to destroy the spirit and willpower of both the leaders and people of North Vietnam. Fortunately, the results were not what he had expected. In 1972 alone, the US air force and its navy threw about 210.000 tons of bombs in North Vietnam. Between 1969 and 1972, the US threw more than 650.000 shells and mines over this region. Consequently, the dyke systems were affected by these military activities.

It can be said that the impact on the dyke system in the 1972 offensive caused great consequences to the social life of the North at that time. Overcoming the aftermath of the war took place rapidly with the mobilization of great human resources. However, due to the mid-year attack, the yield of paddy in North Vietnam in 1972 still increased to 5742.2 thousand tons and it was not until 1973 did the new signs of decline appear. The output only reached 5190.4 thousand tons.

In total, between 1965 and 1972, US air and naval forces threw about 1 million tons of bombs in Northern Vietnam with about 872 471 artillery shells and mines. On average, each km² suffered about 6 tons of bombs, each person in the North at that time suffered 45.5 kg of bombs. The attacks killed and wounded 200.000 people, leaving behind 70.000 orphans. Additionally, 100 percent of power plants, 1500/1600 irrigation works in the North were attacked, more than 1 thousand critical dykes, 6 railroad tracks with most of the sluices collapsed leaving much damage to other

17 People Newspaper, 25 August 1972. 2.

civil works. This left a huge impact on the people of North Vietnam in overcoming the consequences of the war.

Seen from a broader perspective, the American bombings targeting the dykes and irrigation systems severely affected the ecological environment of North Vietnam, especially agricultural eco-systems. As we might know, for traditional Vietnamese, water is a key element of agricultural production. Water control has become an especially important task in deciding the fruits of agricultural production. The US air force bombarded the dyke system, especially during the flood season, in fact, disrupted the irrigation system, which caused floods in many agricultural areas. Consequently, that caused also great damage not only to the economy but also to ecological environment. Many varieties of drought-resistant rice cannot grow when dykes break. In addition, flooding areas led to pollution of habitats and this was the direct cause of epidemic diseases such as cholera, and dengue fever. The American air force even took advantage of dry weather to destroy the environment as the case in Quang Binh province in 1966 when napalm and phosphorus bombs were thrown into rice fields that had been dried by American bombardments before.¹⁸

5. The Attitude of the Democratic Republic of Vietnam

The government of the Democratic Republic of Vietnam took a great deal of action in responding to US air and naval attacks. The first move was to mobilize the entire population in bombed localities at all costs quickly overcome the difficulties and losses to resume production and fight against other possible attacks. In parallel with those drastic actions, authorities at all levels collaborated closely with the armed forces to build defensive battalions that protect the major irrigation and dyke systems. This was very practical in the legitimate defence of the Democratic Republic of Vietnam but invisible in general created the opportunity for US air forces to quickly defuse their misconduct by claiming that attacks on the dyke system and irrigation facilities are due to technical inaccuracies and that the irrigation and dyke system were too close to military targets. At a certain limit these defense are logic because due to the fact that at the

18 Report on the Genocide of the American imperialists in North Vietnam by the Investigation Commission for the American Imperial War Crimes in Vietnam, October 1967. Records in the National Library of Vietnam, VL68. 00001. 9.

end of the winter of 1972, many US pilots chose to drop bombs at high altitudes, despite their inaccurate targets, but could avoid the multi-layered air defense network in Northern Vietnam. However, it cannot be denied that the destruction of the dyke and irrigation facilities was part of the US air strike plans at certain times.

The second move of the Democratic Republic of Vietnam government was to vehemently condemn and protest American criminal actions against North Vietnam in international forums. On July the 22nd, 1966, Prime Minister Pham Van Dong on behalf of the Government Council of the Democratic Republic of Vietnam signed a decree to set up a commission to investigate the war crimes of American imperialism in Vietnam. The Commission was responsible to:

- Investigate, collect, verify and compile documents as well as records on all aspects of the invasion of the US in Vietnam;
- Denounce the crimes of the American imperialism in Vietnam to public opinion in Vietnam and to the people in the world;
- Provide all necessary documents on war crimes of the US imperialists in Vietnam to agencies and organizations at home and abroad;
- Guide and coordinate activities with various state and social organs at all levels in investigating, compiling and preserving documents, exhibits on war crimes committed by the US imperialists in Vietnam.

During the course of its activities, the commission provided the international community with important images and evidences that proved the crimes of American imperialism in Vietnam. Of course, there are many valuable documents related to the US air force attacking the dyke system and irrigation works in North Vietnam.

Besides, the government of the Democratic Republic of Vietnam has been very successful in calling on the international community to condemn US air and naval bombardment actions in North Vietnam in general and destruction of the irrigation system in particular. International organizations investigating American war crimes in Vietnam were established and came to Vietnam to investigate and collect evidences. Many activists have voiced opposition to US war crimes in Vietnam. An English philosopher and pacifist, Bertrand Russel, for example, raised his voice about the American war crimes in Vietnam. In late 1966, followed by his initiative, the *International Tribunal for the Trial of American War Crimes in Vietnam* was established and two important sessions were held the following

year in Sweden and Denmark to condemn American crimes in Vietnam including the activities to destroy the dykes and irrigation systems.

In the conclusion of the first meeting held in Stockholm from 2 to 10 May 1967, air attacks directing towards civilian targets such as hospitals, nursing homes dams became one of the two focus points. Accordingly, “the court finds that dykes and other irrigation works were vital to the Vietnamese people and that there is a great risk of famine for the Vietnamese people by the armed forces of the US that plot to destroy those works.”¹⁹ The court then came to conclude that

“the US government and armed forces are the culprits of systematic and large scale bombing of civil targets, including civilians, houses, villages, dams, dykes, medical facilities, leprosy nursing homes, schools, churches, pagodas, historical and cultural buildings.”²⁰

Another activist, Professor Saburo Kugai, a Japanese intellectual, gave a speech on his field trip to Vietnam at the first session of the court in Stockholm “dams, ditches, irrigation works and coastal dams are bombarded systematically, especially during the rainy season from June to October.”²¹ Another report by a French geographer of the University of Paris VIII, Professor Yves Lacoste noted his comments on the spot when he came to North Vietnam in July 1972 for a field trip as a commissioner of the *Third Corps of the International Commission for the Investigation of American War Crimes in Indochina* in which he exposed the genocide crimes of the American imperialists and their actions in North Vietnam. What he reported were the bombardments targeted towards the dyke network that was of vital importance to the Vietnamese people. Not satisfied with the destruction of factories, bridges, schools, residential areas, the US military forces also attacking the dykes in a hope to threaten the Vietnamese people or cause such great destruction that the Vietnamese people will have to kneel. Since April 1972, the bombardments were mostly located in lower areas like Hai Duong, Thai Binh, Nam Dinh and Ninh Binh, meaning not only the most densely populated areas and most productive in agricultural production but also where villages are clearly below river level. These vil-

19 The world denounces and condemns the American war crimes in Vietnam (1975). Hanoi. 184.

20 The world denounces and condemns the American war crimes in Vietnam (1975), 187–188.

21 The world denounces and condemns the American war crimes in Vietnam (1975), 73.

lages will be submerged under water if the dyke breaks. He went further by showing the international public the maps mentioning destroyed dyke system and confirmed that the US air attacks must be precisely analyzed and well calculated. He concluded that those American war crimes marked a new phase of the American war in Vietnam: the destruction of vital geographical conditions of a country.²² At the *10th World Festival of Youth and Students held at Humboldt University* (East Germany) in 1973, the Free German Youth released a declaration at the forum condemning the crimes of imperialism, especially the condemnation of war crimes committed by the American imperialists in Vietnam. It concluded that the American war crimes in Vietnam including bombing civilians, demolition of dykes, dams, genocide by chemical toxins must be punished exactly the same with what the Nuremberg trial in 1946 did with the war crimes under the Hitler regime.²³

In Vietnam, calling for international support to side with Vietnam's position and strongly condemn the American acts were accelerated and brought more efficiency. The People Newspaper, the voice of the Workers Party of North Vietnam, was used as an effective tool in propaganda on this issue. Numerous articles strongly condemning the activities of the US air force's attacked on dyke systems were published. Some other countries like Cuba, Czechoslovakia, and Hungary continuously issued statements denouncing the activities of the American dyke offensive in North Vietnam, and organized demonstrations in support of the heroic struggle of the Vietnamese people.

6. Conclusions

Water management in the North of Viet Nam with the characteristic of dyke embankment has a long history and a great impact on social life. However, until the mid of the 20th century, the achievements of irrigation work in North Vietnam were not really prominent and thoroughly resolved the risk of flooding. In the strategic assessment and planning of war objectives, the US early saw the important role of the dykes and irrigation sys-

22 The world denounces and condemns the American war crimes in Vietnam (1975), 158–160.

23 The world denounces and condemns the American war crimes in Vietnam (1975), 250–251.

tems in the economic and social life of Northern Vietnam and the focused to destroy them in the years from 1965 to 1972. The Americans soon realized that the economy of North Vietnam was mainly based on agriculture, of which irrigation is always a key issue. So, to hit the irrigation system is to respectively hit the agricultural economy of North Vietnam.

In addition, the urban formation alongside the rivers in Northern Vietnam has made it to be frequently exposed to the risk of flooding. Meanwhile, the dyke system in this area was only able to maintain the level of water stability, but not always safe enough when the incident occurs. So, attacking the main dyke system is to force the North permanently to face the risk of flooding. At a certain limit, the American military activities did not only aim at suppressing the economic potential of North Vietnam and hindered its assistance to South Vietnam but also really targeted at the spirit and will of Northern people, thereby to reduce the prestige of the Vietnamese Labor Party in the population.

To sum up, the attacks of US air and naval forces on irrigation and dyke systems in North Vietnam caused serious consequences. These consequences made the task of water management in the North Vietnam more and more difficult. The risk of floods and natural disasters become a frequent threat, and the agricultural production in the North was severely affected, resulting in a significant decline in production, area and productivity. This created a certain impact on the spirit of the Northern people, but could not sweep the will to combat spirit and production for the purpose of unification of the two regions of Vietnam.

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Effects of Warfare on Social Environments: The Exposure of Vietnamese Veterans to Agent Orange and Other Herbicides

Nguyễn Thị Thúy Hằng

1. Introduction

The concern about the post-warfare environmental effects began already during the American war in Vietnam, during which the U.S military sprayed 79 million litres of herbicides and defoliants over a large area of South Vietnam. *The Committee on the Assessment of Wartime Exposure to Herbicides in Vietnam, National Academy of Science' Institute of Medicine (IOM)*, issued some reports on the exposure of American veterans to Agent Orange and other herbicides used in Vietnam. However, there have been only a few researchers working on the environmental effects caused by these chemicals. Vietnam's media had debates on the effects of the war for the environment, especially by the already mentioned chemical weapons. Based on collecting articles about this topic on Vietnam's media, especially articles and documentary films by Minh Chuyên, a well-known Vietnamese journalist and writer, this paper shows that chemical weapons like Agent Orange and other herbicides not only destroyed and intoxicated environment and rural population in the South but also damaged the health and future of an entire generation of Vietnamese combatants.

What are the environmental effects of chemical warfare? What harm Agent Orange and other herbicides like Agent White and Agent Blue inflicted on American and Vietnamese soldiers and on the rural and urban population? Ironically, this important issue had until recently mainly be researched for the natural environment and for American soldiers. Already in 1974, the *National Research Council* had conducted a study about the effects of herbicides in South Vietnam. In 1982, the *Office of Air Force History* also studied the involvement of the American Air Force in the spraying from 1961 until 1971. In the same year, 1982, Paul Frederick Cecil published *Herbicide Warfare: The Ranch Hand Project in Vietnam*. The *History Institute of Medicine* had also evaluated the exposure of

American veterans to Agent Orange and other herbicides in 1997 and 2003.¹ The usage extent and patterns of toxic agents as well as the exposures of ground troops was researched by some authors as Stellman and Young et al.² The problem however is: Not only American veterans, both Air Force and ground troops, but also Vietnamese people, including veterans and non-combatants, were effected by spraying, even to a far higher degree than American soldiers. However, their interests were advocated not sufficiently in the beginning, and there was not enough research to base their claims on scientific evidence. Therefore, this paper tries to fill a gap: it focuses on the effects of chemical warfare on Vietnamese veterans, combatants who originated from Northern Vietnam, specifically through analysing Minh Chuyên's stories.

This paper mainly uses text analysis and participant observation methods as well as in-depth interviews. Most of the materials and data were collated from reports or articles appearing in Vietnamese journals and newspapers, especially articles and books written by Minh Chuyên. One in-depth interview was conducted with the writer, Minh Chuyên himself who focused in his journalistic work on the fate of combatants during the post-war times.

My paper depicts how the effects of the Vietnam War were discussed in Vietnam's media, and analyses the influence of the American war on the further lives of veterans through the works of Minh Chuyên. The war greatly impacted Vietnam's natural and social environments. The toxins sprayed during the war destroyed the forests, and destroyed health and lives of those soldiers who fought often for years on the Southern battlefields.

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- 1 Institute of Medicine (1997): *Characterizing Exposure of Veterans to Agent Orange and Other Herbicides Used in Vietnam: Scientific Considerations Regarding a Request for Proposals for Research*. Washington. Institute of Medicine (2003): *Characterizing Exposure of Veterans to Agent Orange and Other Herbicides Used in Vietnam*. Washington.
 - 2 Stellman, J. M./Stellman, S. D./ Christian, R./Weber, R./Tomasallo, C. (2003): *The Extent and Patterns of Usage of Agent Orange and Other Herbicides in Vietnam*. In: *Nature* 422. 681–687. Young, A. L./Giesy, J. P./Jones, P. D. (2004): *Environmental Fate and Bioavailability of Agent Orange and its Associated Dioxin during the Vietnam War*. In: *Environmental Science & Pollution Research* 11. 359.

2. Theoretical background

This section aims to provide the readers with the theoretical background that this paper based on – *agenda setting theory*. This theory describes a very important function of media – the ability to tell us what issues are important. As far back as 1922, the newspaper columnist Walter Lippman was concerned that the media had the power to present images to the public. The theory was further developed when McCombs and Shaw investigated the American presidential campaigns in 1968, 1972 and 1976.³ In their research conducted in 1968 they focused on two elements: awareness and information. They concluded that mass media exerted a significant influence on what voters considered to be the major issues of the election campaign. The core assumption of agenda setting is the creation of public awareness and concern of salient issues by the news media. According to this theory, media concentration on a few issues and subjects leads the public to perceive those issues as more important than other ones. One of the most critical aspects in the concept of an agenda setting role of mass communication is the time frame for this phenomenon. In addition, different media have a different agenda setting potential. Bernard Cohen stated

“The press may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about.”⁴

Agenda setting occurs through a cognitive process known as “accessibility.”⁵ Accessibility implies that the more frequently and prominently the news media cover an issue, the more the issue becomes accessible in audiences’ memories. When respondents are asked to rate the most important problems facing a country, they answer by repeating those news issue which are the most accessible in their memories typically the same issue the news media focused on the most. The agenda setting effect is not the result of receiving one or a few messages but is due to the aggregate impact of a very large number of messages, each of which have a different

3 McCombs, M. E./Shaw, D. L. (1972): The Agenda-Setting Function of Mass Media. In: *Public Opinion Quarterly* 36. 176–187. Shaw, D. L./McCombs, M. (1977): *The Emergence of American Political Issues: The Agenda-Setting Function of the Press*. St. Paul.

4 Cohen, B. (1963): *The Press and Foreign Policy*. New York.

5 Iyengar, S. (1990): The Accessibility Bias in Politics: Television News and Public Opinion. In: *International Journal of Public Opinion Research* 2. 1–15.

content but all of which deal with the same general issue.⁶ Mass-media coverage in general and agenda setting also has a powerful impact on what individuals think that other people are thinking,⁷ and hence they tend to allocate more importance to issues that have been extensively covered by mass media. In addition, media also influence policymakers as government officials and politicians take the amount of media attention given to an issue as an indirect expression of public interest in the issue.⁸ As agenda setting theory has been further developed, scholars recently point out so called second-level and third-level agenda setting. The most recent agenda setting studies explore “the extent to which the news media can transfer the salience of relationships among a set of elements to the public.”⁹ That is, researchers assume that the media can not only influence the salience of certain topics in public agenda, but they can also influence how the public relate these topics to one another. Based on that, Guo, Vu and McCombs bring up a new theoretical model called *network agenda setting* which they also refer to as the third-level agenda setting. This model shows that “the news media can bundle sets of objects or attributes and make these bundles of elements salient in the public's mind simultaneously.”¹⁰

Hence, the most important point of this theory is that it describes a very powerful influence of mass media – the ability to inform the audience which issues are important. The effects of herbicidal warfare on the natural environment and on Vietnamese combatants and non-combatants are mainly known because of their appearance in Vietnamese newspapers, and dependence on the emphasis with which the media report about the effects Agent Orange on veterans and civilians and the entire environment.

6 Rogers, E. M./Dearing, J. W. (1988): Agenda-Setting Research: Where has it been? Where is it going? In: Anderson, J. A. (Ed.): Communication Yearbook 11. 555–594.

7 Noelle-Neumann, E. (1977): Turbulences in the Climate of Opinion: Methodological Applications of the Spiral of Silence Theory. In: Public Opinion Quarterly 41. 143–158.

8 Rogers/Dearing (1988).

9 McCombs, Maxwell E./Shaw, Donald L./Weaver, David H. (2014): New Directions in Agenda-Setting Theory and Research. In: Mass Communication & Society 17. 781–802.

10 Guo, Lei/Vu, Hong Tien/McCombs, Maxwell E. (2012): An Expanded Perspective on Agenda-Setting Effects. Exploring the Third Level of Agenda Setting. Una extensión de la perspectiva de los efectos de la Agenda Setting. Explorando el tercer nivel de la Agenda setting. In: Revista de Comunicación 11. 51–68.

3. *The Environmental Effects of Herbicidal Warfare*

“For ten years (1961 to 1971), the US military sprayed about 80 million litres of toxic chemicals; 61 percent of which were Agent Orange (containing 366 kg of dioxin) down to 26,000 villages, with an area of over 3.06 million ha (86 percent of area sprayed more than 2 times, 11 percent of area sprayed more than 10 times). Nearly a quarter of South Vietnam’s area was sprayed with Agent Orange /dioxin; about 86 percent of the toxic spray sprayed in the dense forest, the remaining 14 percent went down to the orchard farms.”¹¹

The US military conducted in Vietnam the largest chemical war in world history so far and gave rise to the concept of *ecocide*, the deliberate destruction of the environment as a military strategy. The US Army used Agent Orange during the Vietnam War to defoliate the forests and to “neutralize the camouflage of the Viet Cong;” it contained one of the most toxic substances at all, a dioxin (TCCD) in a concentration of 3 to 4 mg/l. As large quantities of TCCD and other toxic chemicals were sprayed in high concentration and repeatedly, the damage had not only the short-term effect of killing plants and animals; the environment in Vietnam’s South was polluted for a long time, the entire natural ecosystem was severely devastated. According to *The Bertrand Russel Tribunal*, as well as the *1970 Paris Conference*, both accused the US of chemical warfare in Vietnam with disastrous results: “the war destroyed the environment, destroyed the ecosystems and the people.”

Before 1956, forest land in South Vietnam was 10.3 million ha, accounting for 60 percent of its total area. Especially the Mid-Central region, the Central Highlands, the Southeast, and coastal mangrove areas were densely wooded. During the *Ranch Hand campaign*, the Southern inland forests were targeted the heaviest, accounting for 86 percent of the total number of spray missions. The mission focused on the forests from the high mountains to the coastal lowlands, from wet areas to dry areas, stretching from the 17th parallel to Cà Mau.

The dioxin in Agent Orange contaminated a large area of South Vietnam. 73,000 cubic meters of soil and sediment were polluted with dioxin at Đà Nẵng Airport alone. Traces of dioxin can still found in the soil of the most heavily contaminated areas – in the so called 25 *hot spots* where dioxin has a terrible impact on the environment and the local population in particular. Research conducted at some *hot spots* such as A Sho airport

11 National People's Defense Review (2011).

(Thừa Thiên – Huế), Đà Nẵng, and Biên Hòa shows that dioxin continues to affect the health of people living in these areas.

As a preliminary result, more than 3.3 million ha of natural land was sprayed with toxic substances (with a width of about 1,000 m), in which domestic forests were severely impacted at varying degrees, resulting in a loss of an estimate 100 million m³ of wood, especially in the South East region where over 50 percent of the natural area was damaged. However, War Zone D, War Zone C, Bời Lờ Forest, Củ Chi Forest etc. were not only sprayed with millions of litres of poisonous substance; they were also attacked with millions of tons of bombs and ammunition, leading to the de facto annihilation of areas such as Mã Đà district (Đồng Nai province), Phú Bình, and Bù Gia Mập district (Bình Phước province).¹²

The consequences of American chemical warfare have also led to other environmental damage and biodiversity losses. The process of piling leaves has resulted in nutrient overflows, and 10 to 15 million bomb crates accounted for about 1 percent of South Vietnam's forest area, causing topsoil to overturn and promote soil washing. The consequence directly hinders forest restoration and causes negative impacts on watershed protection forests for 28 river basins, including:

- 16 basins with 30 percent of the basin area sprayed with poison;
- 10 basins have 30–50 percent of the basin area sprayed with poison;
- Two basins have over 50 percent of the basin area sprayed with poison.

Most of these watersheds have short rivers, complex terrain, many slopes, with direct currents flowing downstream. Typically, basins of Hương River, Thạch Hãn River, Hàn River, Thu Bồn River, Trà Khúc River, Cồn River, Vệ River, Cầu River, and Ba River have been devastated by floods for years.¹³

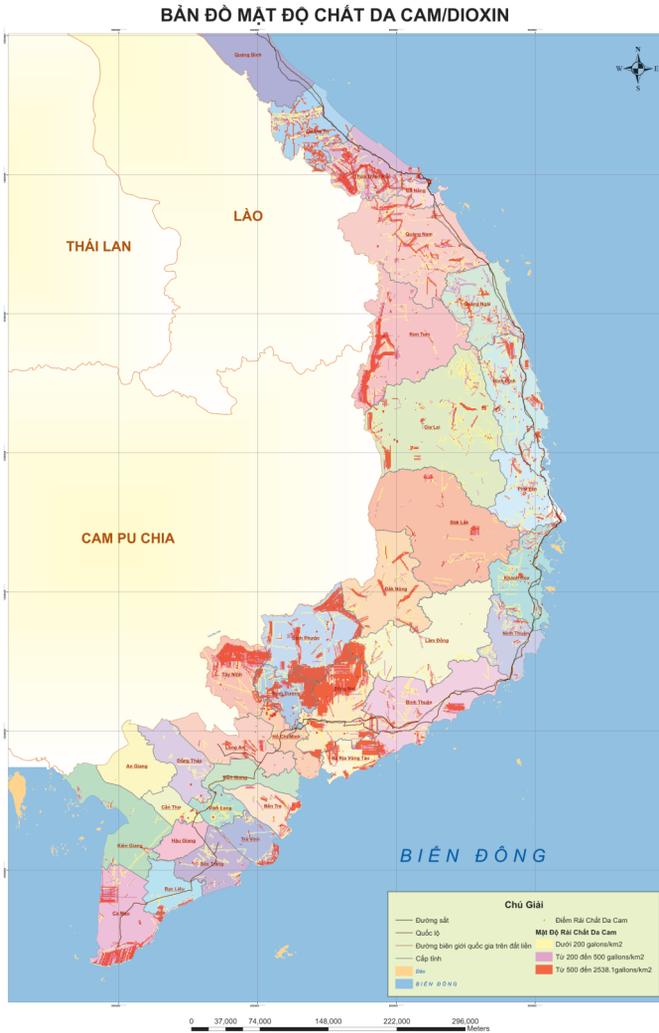
Map 1 below gives an overview about the density of spraying of Agent Orange in South Vietnam. Toxic chemicals were utilized for warfare all over South Vietnam, from the 17th parallel to the Cà Mau cape, but the operation concentrated in areas of high military relevance such as McNamara fence area (Quảng Trị province), A Lưới (Thừa Thiên Huế province) Sa Thầy (Kon Tum province), Cần Giờ area (Hồ Chí Minh City) and Đồng

12 <https://www.maxreading.com/sach-hay/viet-nam-moi-truong-va-cuoc-song/hau-qu-a-cua-chien-tranh-hoa-hoc-doi-voi-rung-11353.html>.

13 <https://www.maxreading.com/sach-hay/viet-nam-moi-truong-va-cuoc-song/hau-qu-a-cua-chien-tranh-hoa-hoc-doi-voi-rung-11353.htm>.

Nai, Cà Mau. Herbicides sprayed in high concentrations not only destroyed the nutrients in the soil, making the soil barren, but under the conditions of tropical monsoon climate like in South Central Vietnam, the forest was very difficult to recover.

Map 1: Density of Agent Orange Sprayed in South Vietnam



Source: The Vietnam Association of Victims of Agent Orange/Dioxin (VAVA)

Millions of inland forests hectares and coastal mangroves were sprayed with Agent Orange many times. Immediately after the herbicides deployed in high concentrations for the first time, 10–20 percent of the plants belonging to the top floor (accounting for 40–50 percent of forest biomass) died. Consequently, the low-altitude climate was altered, as the humidity decreased, and the intensity of solar radiation increased, so that surviving young trees were also difficult to grow.

4. Warfare Impact on the Social Environment

The destruction done by the U.S military's spraying of deadly chemical herbicides containing the poison dioxin to the Vietnamese natural environment was disastrous. However, the social environmental effects of dioxin, the most common of which was Agent Orange, was another tragic legacy of the war.

“These chemicals exposed almost 5 million people, mostly civilians, to deadly consequences... The Vietnamese exposed to the chemical suffer from cancer, liver damage, pulmonary and heart diseases, defects to reproductive capacity, and skin and nervous disorders. Their children and grandchildren have severe physical deformities, mental and physical disabilities, diseases, and shortened life spans.”¹⁴

Therefore, this paper also deals with two social environmental effects of herbicidal warfare as there were depicted by Minh Chuyên in his articles: *Firstly*, Agent Orange deprived women who were young volunteers during the war of their motherhood. *Secondly*, it inflicted combatants with persistent suffering from the long-term consequences of exposure, chronic pain and horrific birth defects for children and grandchildren.

Firstly, Agent Orange denied many women who volunteered during the war the opportunity to give birth to children. The end of the war and the liberation of the South very often also terminated their youth. Back to their villages, partly because of the same age boyfriends became martyrs, partly due to sickness, injuries, malaria, and the effects of Agent Orange and other chemicals, affected women often became nuns in pagodas. Minh Chuyên has come up with his famous article *Vào chùa gặp lại (Come to*

14 Mirer, Jeanne/Cohn, Marjorie (2018): US Chemical Warfare: Agent Orange in Vietnam, Global Research. <http://vava.org.vn/us-chemical-warfare-agent-orange-in-vietnam.html>.

the Pagoda to Meet again) in which the fact that two districts (Kiến Xương and Tiền Hải in Thái Bình province) alone have more than 37 women who were female youth volunteers during wartime. During the interviews with him the question was raised to Minh Chuyên: “For Vietnamese women, family and children play an important role in their life, why did they come to the pagoda?” He replied:

“They entered the pagoda for some reason: (1) the war ended, they survived. However, most of their boyfriends were martyrs or passed away; (2) many people were infected with poison and did not want to give birth to children with disabilities, for example teratogenicity. (3) Because of their illnesses, they wanted to stay at the pagoda, praying for themselves, for their old teammates, friends, and to do charitable work. Many pagodas nowadays nourish children suffering from Agent Orange and old people who no one is taking refuge, such as the pagodas of the Minh and Thâm Thân nuns which nourish 10–15 children.”¹⁵

The article *Vào chùa gặp lại* (*Come to the Pagoda to Meet again*) tells the story of the nun Đàm Thân, who returned from the war severely disabled (62 percent disability). Đàm Thân thinks that her boyfriend is dead. She has a dream one night: hundreds of soldiers, youth volunteers, and other people without heads, legs, or arms are sitting like statues, listening to Sutras and occasionally bow down the head as if expecting people to pray for them, so she decides to become a nun to pray for her teammates.

But her boyfriend did not die, and one day he comes to the pagoda to find her, and begs her to leave the pagoda and go back to her family. Đàm Thân must tell her lover the secret that she has not revealed to anyone: due to sequelae of war, she cannot deliver babies. However, the story of Đàm Thân is not the only one about the misery of one women after the war. Many nuns among the more than 37 nuns in the two districts of Thái Bình share the same suffering, such as Ngọc Hân, Đàm Lộc, Nguyễn Thị Chiêm, Thích Đàm Nhuận and so on. Injured, infected with toxic chemicals, they are deprived of the right to be wife and mother. Minh Chuyên is the first journalist who has written stories about women who have suffered from the late effects of war and have become nuns. In the pagoda, they look for relief, pray for health and do good deeds.

The poet Phạm Tiến Duật writes:

“Reading the article ‘Come to the pagoda to meet again’ written by Minh Chuyên on newspaper *Văn nghệ* no. 1/1997 made me be sleeplessness. I

15 Interview with Minh Chuyên, 4th October 2017.

couldn't believe in my eyes. Less than two pages, Minh Chuyên has revived in me many flame years with so many lively personal circumstances, the great sacrifice of the youth generation for the independent cause and the reunion of the country. Only one of these writings has shown our writers that the topic of war is not old but also hot with great social significance."¹⁶

More than 20 years later, on *Vnexpress*, the Vietnamese electronic newspaper with the largest readership, the article *The young volunteers who find peace in the door of the Buddha* refers to Minh Chuyên's writing.¹⁷

Secondly, another horrible late effect of the deployed toxic chemicals is that victims exposed to dioxin pass their health problems to the following generations. Very often, those exposed to Agent Orange have children and grandchildren born seriously ill and disabled. Minh Chuyên had a series of articles on the sequelae of Agent Orange for Vietnamese veterans, published in newspapers and collected in the books.¹⁸

He writes:

"The war is over, but the human suffering, the pain caused by the consequences of war in their body, remains forever. Only in Thái Bình, a small countryside in the lower delta of the Red River, there are 50,000 martyrs, and hundreds of thousands of people suffering from war consequences. There are consequences for three generations. This is the result of people who were infected with dioxin poisoning by the United States to the Southern battlefield. A kind of wound, without shrapnel, without bleeding, but persistent, painful and quietly has devastated their children's lives for several decades."¹⁹

The family of Đặng Văn Minh in Tiền Hải district has two daughters, in their 20s but appearing as women in their 70s. Their eyes bulge out, the lips are torn, the skin is wrinkled, the head is big, the head is bold, and the tongue is always sticking out; people call them aliens. Mr. Minh has been raising his children for twenty years, but he has never heard them calling 'Daddy, Mummy' because they cannot speak. During the war, Đặng Văn Minh was in Quang Tri, Khe Sanh over 7 years, and poisoned there. Sometimes he wishes if he died there, his children weren't like that.

16 Minh Chuyên (1998), *Di họa chiến tranh (War Sequelae)*, 288.

17 *VnExpress* (2017).

18 *Di họa chiến tranh (War Sequelae)*, quyển 1 (vol. 1, 1997), quyển 2 (vol. 2, 1999), *Hậu chiến Việt Nam (Post-war Vietnam)*, quyển 1 (vol. 1, 2005), quyển 2 (vol. 2, 2006), *Những linh hồn da cam (Souls of Orange)* quyển 1 (vol. 1, 2009), quyển 2 (vol. 2, 2010), etc

19 Minh Chuyên (1997), *Di họa chiến tranh (War Sequelae)*, 21–22.

Đỗ Đức Thoát, a veteran in Thái Thụy district, was in the Quảng Nam/Đà Nẵng battlefield during the resistance against the Americans, and was heavily poisoned. “I couldn’t imagine that the American poison was so horrible”, he said: “if it only destroyed my body, I could suffer. But it infected my children; it was so hard for them.”²⁰ All four of his children suffered from his exposition to Agent Orange, of which two died at age 5, the youngest has four legs. Đỗ Đức Thoát passed away because of his intoxication.

Nguyễn Văn Thắng’s family in Thai Binh town has two children, the girl with black and bristly hair, like the fur of an animal. The son was born handicapped and died at the age of 7. Thắng fought on the battlefields of South Vietnam and Cambodia, where the United States sprayed toxic chemicals.

Nguyễn Văn Báu in Tiên Hải district left the army after 10 years as a soldier on the Ninth road, Khe Sanh, but the war still followed him to the countryside that very far from the front. His first child died at birth. 3 more children died at the age 7, 9 and 10. After 10 years, he and his wife continued to have three children, and all of them were blind and deaf and passed away soon. He became crazy and begged everyone he met to help him to find his children.²¹

The family of veteran Lại Văn Hằng in Vũ Thư district has only one child but raise it in a cage. Minh Chuyên describes:

“When I stepped into the yard, I was amazed: the first scene caught my eye, a naked 20-year-old ‘girl’, clinging to the cage, buckling, shaking hands, pushing legs, screaming, like the gibbons swinging in the shed in the park. Sitting outside, a skinny woman, dry eyes, was waving hands to motion the girl to be quiet. That woman was Hoàng Thị Ngoãn, her mother.”²²

In response to the author's question: Why do you raise her in a cage, the mother cries and says otherwise she would have died a long time ago already. When Hà was young, they discovered that she had unusual signs. Hospital examination found that Hà’s blood had a concentration of dioxin, exceeding the limits by more than 80 times. At the age of eight, she became ‘wild’. Hà did not lie in bed, but crawled around everywhere. She crawled to the yard, to the lane, into the pond to drink water. At night, Hà

20 Minh Chuyên (1997), *Di họa chiến tranh* (War Sequelae), 26.

21 Minh Chuyên (1997), *Di họa chiến tranh* (War Sequelae). (“Nước mắt làng” (Tears of village)).

22 Minh Chuyên (2005), 113. (“Chiếc cũi trần gian” (The Cage on the earth)).

crawled out into the yard under the rain, even into the water tank. Hà ate anything that she could grasp: locusts, grasshoppers, worms, crickets, leaves, weeds, even green potato worms and caterpillars. “There wasn’t another way, my wife and I discussed and decided to make a sturdy bamboo cage and feed her there, so I could keep her and she could live until now,” Hà’s father says. He was a soldier who participated in the historic Ho Chi Minh Campaign, then went to help Laos, living in the forests of Muong Phin, Xieng Khouang and Chum fields. The Americans spread toxic chemicals by aircraft there. Four of the 9 members of his squad suffer from contamination by Agent Orange too. The ‘ghost’ of Agent Orange haunts their blood, pursues them to the villages, gnaws their bodies, and eats the ‘soul’ of their children. Some of them are insane, they live like sleepwalkers, some are afraid of the sunlight, all day long just laugh or cry in the dark, some have tumors in their whole body. It is even more tragic because innocent children are born from their blood.

Mr. Lê Văn Lóp from Hung Hà district, a veteran of the Tiên Phước battlefield in Quảng Nam, had felt fortunate to return to his homeland after the war, as many his comrades died. But he did not foresee the after effects of the war waiting ahead. His wife, a beautiful girl from the village, gave birth to his first child in 1977, a headless figure, with no legs but eyes. Seeing her baby, she screamed and fainted. She delivered another baby, but again gave birth to a monstrous shape. Each time when his wife delivered, Lê Văn Lóp quietly buried the child. After his wife’s sixth delivery, he became completely blind. They still hoped to have a healthy baby, and 7th, 8th, and 9th were born. He couldn’t see the newborn, but he heard his wife screaming, so he could imagine the freakish shape of the fetus. He cried, groped the corpse sack and has someone buried the children. The pain of losing 9 children drove his wife crazy. Meeting everyone, she asked “where are my children, give my children to me” and screamed to find children in the cemetery. After 2 years of treatment, she recovered from illness, and thought that the nine stillbirths were her fault. She decided to find him a healthy wife in 1995. Six months later, Lê Văn Lóp’s second wife became pregnant. The wife cried when giving birth, and the midwife said to him:

“The baby was like a cat, hairs wrapped around him, no eyes, nose or anything. Just born, it was not breathing then. It is said that you were genetically infected for the baby, it must be true.”²³

The second wife left him, and he intended to commit suicide because he thought he had lost everything. But his first wife returned, taking care of him. Even, to make him see again, she suggested to the hospital to donate one of her eyes to him. Of course the hospital could not do that, but he was deeply impressed by his wife's heart. He says:

“The image of 10 children could not be human, and my eyes have been submerged in the dark, many times I want to leave the world, but then love and faithfulness of my wife, the feeling of my comrades and neighbors are clinging to me, it warmed my life.”²⁴

Because of Agent Orange, many veterans have no children or disabled ones. Even more harrowing, the generation of the grandchildren is affected too. In some of his articles, Minh Chuyen writes about families which are poisoned for three consecutive generations, such as the families of Trần Ngọc Nghê, and Đỗ Văn Cừ in Thái Bình. The soldiers did not cry on the battlefield, but now they cry for the disabled grandchildren.

“I’m sorry my dear grandson. Because of me, you must suffer the pain. Please sympathize for me. Grandpa went to fight the enemy, when the war over, grandparents gave birth to your father. Because I was infected with Agent Orange on the battlefield, your father was also mentally ill. I just thought that only grandpa and your father bear the consequences. I did not expect you to suffer as well,”²⁵

says Trần Ngọc Nghê to his grandson and cries. I raise the question to Minh Chuyên:

“As witness to the pain of Vietnamese veterans’ families, to whom three generations have suffered from Agent Orange, do you see how can they tolerate and adapt to that situation?”

He replies:

“At first I thought how they could overcome. A father in my article said: Although peace was already there, but in my house there wasn’t a night without war. Perhaps because of their fate, they have to suffer. There are families of three writhing children, they still have to raise, have to live up. Children live

23 Minh Chuyên (1997), 73. (“Mười lần sinh tử” (Ten births and deaths)).

24 Minh Chuyên (1997), 78. (“Mười lần sinh tử” (Ten births and deaths)).

25 Minh Chuyên (2005), 136. (“Ba đời nhiễm độc” (Three poisoned generation)).

in poverty, without medicine, and slowly die. So far, according to the statistics of the Association of Agent Orange, more than 200,000 children born in the first and the second generation died, and the characters in my articles, mostly died. For example, all children in *Tears of the village* are dead, and Hằng's daughter in *The cage on the earth* is still living in a cage.”²⁶

One consolation for veterans exposed to Agent Orange is that relatives and villagers have absolutely no discrimination against them, but always are close and support them. In the article *Ten births and deaths*, the first wife of the veteran after 9 stillbirths even decides to find a new wife for her husband to deliver healthy children. When the second wife leaves him after another stillbirth with severe defects, the first wife returns to him, taking care of the blind husband, even offering him one her eyes. The Agent-Orange victim in the article *Tears of the village* can survive due to blood donations from the villagers and their day and night care. It did not save his seven children, but soothed the pain of his heart.

5. Conclusion

It is not easy to return from such heart-breaking narratives to a theory like agenda setting again. But even in this case, the theory gives valuable explanations for importance and impact of communication on public and policy makers, because Minh Chuyên's articles on Agent Orange victims set a new agenda for the discourse on the American War in Vietnam's society and politics.

Minh Chuyên published his first articles about the exposure of Vietnamese veterans to Agent Orange between 1975 and 1985. Prior to his publications, neither society nor government paid attention to this issue, or even cared for victims of Agent Orange. This changed with his articles: for example, after the publication of *War sequelae*, delegates told the National Assembly that some writers have addressed the issue. This affected social policy as well as public concern. Nowadays, almost all members of the Vietnamese society have joined activities to support victims of Agent Orange. Up to 2004, *Association of Victims of Agent Orange* was just established at national, provincial, district and wards level, deploying policies to support Agent Orange victims, then Vietnam Association for Vic-

26 . Interview with Minh Chuyên, 4th October 2017.

tims of Agent Orange/dioxin Foundation was founded in 2009. The poet Vũ Quần Phương told Minh Chuyên:

“Maybe you are one of the first to discover the Agent Orange victims, because after 20 years, your findings are just socially recognized.”

Answering the question why he just focuses on the post-war topic in his writing, Minh Chuyên says:

“My obsession is the fate of many unfortunate soldiers, although they have fought to defend the Fatherland. That motivated me throughout my life to write almost no topic other than the post-war, which includes chemical toxicity, war invalids, martyrs, disabled people, suffering people. I think it is the responsibility of the writer. If we do not reflect, how can society know the facts which remain in the reality of a part of the soldiers after the war Millions of people are suffering so much.”²⁷

Nowadays many policies to overcome the consequences of the war are promulgated by the Government of Vietnam.²⁸ The basic objective is to tackle the effects of toxic chemicals on environment and people by:

- decontamination of particularly hard-hit areas;
- social policy for poisoned persons and their relatives in so far as they participated in the resistance against the USA;
- a program of afforestation of 300,000 ha of fallow land and hilly areas, which are particularly contaminated.

The war is over, but its after effects persist and become social problems which require be resolved. The damage by chemical warfare on Vietnam’s natural environment will take a very long time to overcome. But the impact on the social environment which the paper points out through analyzing the effects of toxic chemicals on veterans in Minh Chuyên’s articles,

27 Interview with Minh Chuyên, 4th October 2017.

28 Decision No. 16 dated February 5, 2004 on Supporting for households with two or more people who unable to serve by themselves because of toxic chemicals; Decision No. 120 dated July 5, 2004 on Number of policies for resistance participants and their offspring affected by toxic chemicals used by the United States during the war; Decree No. 54 dated May 25, 2006 on Guiding conditions to serve as basis for considering and settling policies for resistance war participants infected with toxic chemicals and their offspring ... Especially, on June 1, 2012, the Prime Minister issued Decision 651 on The plan of action to overcome basically the consequences of toxic chemicals used by the US in the war in Vietnam until 2015 and orientations to 2020.

are another big issue that is demanding multi-faceted involvement to be surmounted.

Firstly, the participation of the Party and the State of Vietnam in order to adopt policies and monitor the implementation of social policies for veterans and their children should be further promoted.

Secondly, the United States, which sprayed toxic chemicals in Vietnam, should be held responsible for these actions. In the recent years, the US has donated some funding to overcome the consequences of Agent Orange/dioxin in Vietnam already. The aid has been increasing since 2007: 3 million USD per year (2007, 2009), 15 million USD (2010), 34 million USD for the detoxification of Đà Nẵng airport, which used to be the distribution center for Agent Orange during the war in Vietnam; 44 million USD to continue the handling of Agent Orange/Dioxin Hotspots (2012, 2013).²⁹ However, the funding is too small compared to the huge damage that the US military inflicted on the people of Vietnam. Moreover, the American supports focuses so far on solving environmental problems, while financial compensation, or provision of health care and social benefits for victims of Agent Orange are still extremely limited. Victims of dioxin-affected households have not received any direct assistance from the US so far. Millions of people are still living with pain and enormous emotional suffering.

Thirdly, the attention to the issue by the international community must further be attracted. Developed countries such as Germany can assist in the implementation of environmental surveys in Vietnam, and help to detect landmines and clear affected areas, to finance and organize natural regeneration as well as to support community health care and further policy implementation for Agent Orange victims.

Finally, the involvement of the entire society in overcoming the consequences of the war, both for the natural and the social environment is very crucial. As indicated above, Minh Chuyên's writings on the fate of veterans in Vietnam have affected the perception of the society and forced policymakers to issue social policies for Agent Orange victims. To overcome the consequences of Agent Orange/Dioxin in Vietnam nowadays, there are still many big problems to be solved – such as continuing investigation and evaluation of the consequences, searching for appropriate technolo-

29 <http://www.tapchiconsan.org.vn/Home/The-gioi-van-de-su-kien/2013/23031/Nuoc-My-voi-viec-giai-quyet-hau-qua-chat-doc-da-camdioxin>.

gies for decontamination especially in hard-hit areas, and reducing the number of new exposures. Another important issue is how sequelae for following generations can be dealt with, how aid programs for Agent Orange victims can be improved, and how compensation can be called for. All these tasks require more participation from Vietnam's to fulfil their important function of communicating this issue and thereby set an agenda.

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Between Destruction and Reconstruction: The Development of Vinh City's Built Environment in the Second Half of the 20th Century

Tim Kaiser

1. Introduction

The impact of war is not only felt in the natural environment, but does also affect the human made environment. This impact is made dramatically visible in the built environment of urban areas that are affected by large scale destruction. In the 20th century, aerial bombing of urban areas has resulted in such large scale destruction. During World War II, aerial bombing and the destructions it caused to the urban built environment rose to unprecedented levels. The countries most effected during WWII were Japan and Germany.¹ During the 1960s and 1970s, the cities of the Democratic Republic of Vietnam (DRV) were subject to the most intensive bombing campaigns of urban areas the world had experienced until then.

The 20th century also saw the development and large scale application of modern urban planning. Such modern urban planning aimed at employing scientific methods and knowledge to design an urban environment that would contribute to the implementation of visions of social change. New ideals of the urban environment that promised the creation of more just and equal societies were developed. While some of these approaches aimed at incremental development, others saw the (re-) design of complete cities as the solution to problems inherited from the past.²

In this paper, I trace the history of the built environment of Vinh City in North-Central Vietnam's Nghệ An province through a period that was

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- 1 Davis, Donald/Weinstein, David (2002): Bones, Bombs and Break Points: The Geography of Economic Activity. In: American Economic Review 92. 1269–1289.
 - Brakman, S./Garretsen, H./Schramm, M. (2004): The Strategic Bombing of German cities during World War II and its Impact on City Growth. In: Journal of Economic Geography 4, 2. 201–218.
 - 2 Hall, Peter (2002): Cities of Tomorrow. An Intellectual History of Urban Planning and Design in the Twentieth Century. Oxford.

marked by the two above mentioned aspects: destruction by aerial bombing and reconstruction through modern urban planning. Since the 1940s, the built environment of Vinh was repeatedly destroyed by wars. In the 1960s and 1970s, the city was totally devastated twice by bombing by the United States (US). Both times, its reconstruction was to be achieved through centralized planning that aimed at the creation of a *socialist* urban environment. However, the modes and results of reconstruction differed markedly. While the first reconstruction attempt produced little results and was short-lived because of the second destruction by bombing, the second attempt was carried out with assistance of the German Democratic Republic (GDR) and its impacts remain visible in Vinh's contemporary urban environment. The history of Vinh's urban environment in the 20th century presented here is thus a distinctly international history, as it concentrates on foreign impacts and influences of destruction and creation.

The history of Vinh provides an example of how a North Vietnamese city was impacted by war, and especially by bomb war, during the 1960s and 1970s. As Diefendorf has shown, a study of the impact of war on the urban environment cannot be reduced to an evaluation of the amount of explosives dropped on a city and the immediate destruction caused by bombing.³ To grasp the full picture, such a study has to include both the pre-war history of a city, as well as its reconstruction and post-war development. This also makes necessary to look at decisions and plans for urban development and reconstruction prior to the end of the war. This complexity creates difficulties in isolating the impact of destruction by bombing on the urban environment from that of other processes. However, as the history of Vinh shows, urban development, destruction, and reconstruction are intertwined processes and neither can be analysed in isolation.

2. *The Impact of Bomb War on Cities*

The impact of war, and specifically bomb war, on cities and their development has received growing scholarly attention. Several studies have focused on the impact of bombing, regarded as a specific form of “shocks”⁴,

3 Diefendorf, Jeffrey M. (1993): *In the Wake of War. The Reconstruction of German Cities after World War II*. New York.

4 Davis/Weinstein (2002), 1271.

on the distribution and growth of urban centres. In one of these studies, Davis and Weinstein have investigated the impact of Allied bombing of Japanese cities during World War II, “one of the most powerful shocks to relative city sized that the world has ever experienced.”⁵ The scale of Allied bombing on the targeted Japanese cities was devastating. In total, 2.2 million buildings were destroyed, nearly half of all structures in the targeted cities. 300,000 inhabitants were killed and 40 percent of the population lost their homes.⁶ The impact of bombing varied between the Japanese cities. About 80 percent of the 300 cities in Davis’ and Weinstein’s sample remained “virtually untouched by the bombings”, including large cities like Kyoto.⁷ There was also great variation in the impact of bombing on those cities that were actually bombed.⁸ Regarding the mid- to long-term effects of bombing on these cities relative size, in general the US bombing had no impact on the relative population numbers of a typical Japanese city in 1960. Despite the devastation caused by the bombing, the typical city had recovered its relative size within 15 years after the end of the war. By 1965, 20 years after the war, the Japanese cities had completely recovered from the bombing-shocks and returned to their pre-war trajectories.⁹ Davis and Weinstein concluded that “even the spectacular destruction inflicted on Japanese cities by the US strategic bombing of Japanese cities in WWII had virtually no long-run impact on the relative size of Japanese cities. Within the space of just 20 year, they recovered from the devastation to return to their former place in the constellation of cities.”¹⁰

Brakman et al.¹¹ have followed a similar approach as Davis and Weinstein in their study of the impact of strategic bombing during World War II on German cities’ growth and development. Similarly to destruction in Japan, an average of 40 percent of the dwellings of the larger German cities were destroyed during WWII, estimated deaths due to air raids reach 410,000, and the homes of seven million urban dwellers were destroyed.¹² In the Federal Republic of Germany (FRG), bombing had a temporary im-

5 Davis/Weinstein (2002), 1271.

6 Davis/Weinstein (2002), 1277.

7 Davis/Weinstein (2002), 1278.

8 Davis/Weinstein (2002), 1278–79.

9 Davis/Weinstein (2002), 1280–82.

10 Davis/Weinstein (2002), 1283.

11 Brakman, S./Garretsen, H./Schramm, M. (2004).

12 Brakman, S./Garretsen, H./Schramm, M. (2004), 205.

impact on city size. Its cities showed a tendency to revert to their pre-war relative city size, but until 1963 this reversion remained incomplete. This recovery is less pronounced than the Japanese cities that had recovered completely by 1960. In contrast to the development in the FRG, bombing had both a short- and long-term effect in the GDR, where cities had not recovered from the destruction by bombing by 1964.¹³

These studies were able to show that even the heaviest destructions inflicted by aerial bombing on urban centres have had little impact on the mid- to long-term population growth and distribution of cities and towns. Doing so, they have mainly focused on quantitative data to examine the impact of bombing on urban centres. They also recognize the role reconstruction policies play for the post-war recovery and development of cities. In Japan, reconstruction subsidies had a positive impact on the recovery of cities. This impact, however, remained relatively small, accounting for less than one percentage of the cumulative 1947-1960 growth of the four cities that were most heavily destroyed.¹⁴ One reason for this small contribution of reconstruction funds to urban recovery was the focus of reconstruction policies on rural areas.¹⁵ As the study by Brakman et al takes into account the post-war development of cities in both the FRG and the GDR, it is able to identify the impact of very different policies for urban reconstruction on the post-war urban development in both countries. The FRG built many more new houses between 1950 and 1961 than the GDR (3.1 million in comparison to 0.5 million, or nearly three times as many per capita). The FRG focused on the rebuilding of its large cities and those that had large post-war populations but were not necessarily the most destroyed ones. The GDR, in contrast, focused on the development of new industrial centres.¹⁶ The permanency of the bombing shock on the GDR's cities also resulted from that country becoming a centrally planned economy, as market mechanisms that furthered the recovery in the FRG were "no longer or at least less relevant for East German city growth."¹⁷

These studies on the impact of bombing on urban centres have provided valuable findings on general urbanization trends and the impact of bomb-

13 Brakman, S./Garretsen, H./Schramm, M. (2004), 207–210.

14 Davis/Weinstein (2002), 1281.

15 Davis/Weinstein (2002), 1277–1281.

16 Brakman, S./Garretsen, H./Schramm, M. (2004), 212–213.

17 Brakman, S./Garretsen, H./Schramm, M. (2004), 215.

ing on these. Thus, we do know that destruction, as temporary shocks, has often little impact on the long-term quantitative growth of cities, and that reconstruction policies play a role in their recovery. However, the impact of bombing does not translate only to quantitative data and studies of the impact of war and bombing on the urban environment remain scarce. Diefendorf's study on destruction and reconstruction of cities in the FRG after World War II has provided a very detailed examination of reconstruction policies and how they impacted the urban built environment.¹⁸ Glaeser and Shapiro's work on the impact of warfare and terrorism on urban areas takes a more detailed view at selected cities, chiefly New York City after the attacks of 9/11, than the previously mentioned studies.¹⁹ This view is able to identify the importance of individual urban centres' particular settings, modes and intensities of destruction, as well as post-war reconstruction policies for a detailed understanding of the impact of war on an individual city.

In the following, such a detailed approach is employed to show how the specifics of destruction and reconstruction of Vinh in North-Central Vietnam have impacted the urban built environment of that city, focusing on the period between the 1940s and the 1980s. This timespan covers a period that was marked by repeated destructions and attempts at reconstruction of Vinh according to the model of a *socialist* city, one of the ideals modern urban planning has produced in the 20th century. The study is based on archival research in Vietnam (at the National Archives Centre 3, Hanoi and the Archives of the People's Committee of Nghệ An Province, Vinh) and Germany (at the Federal Archives, Berlin) carried out in 2010-2012.²⁰ The following sections first present the general picture of the impact of the American War on cities in Vietnam, afterwards, the paper turns to the reconstruction efforts that aimed at creating a *socialist* urban environment in Vinh. Finally, the paper argues that because of the very diverse war-time experience of Vietnamese cities, a comparative approach is necessary for a complete understanding of the impact of the war on Vietnam's urban centres.

18 Diefendorf (1993).

19 Glaeser, Edward/Shapiro, Jesse (2001): *Cities and Warfare. The Impact of Terrorism on Urban Form*. Discussion Paper Number 1942. Cambridge.

20 Archival sources are cited here as they appear in the original. Therefore, where the original document is written without diacritics, these are also lacking in the citation provided here.

3. *The Bomb War in North Vietnam*

The US dropped about 2,000,000 tons of all kind of air ordnance during WWII, and about 1,000,000 tons during the Korean War. Yet, in Indochina, they had dropped a total of about 6,300,000 by the year 1971 alone.²¹ Already by 1969, the amount of explosives dropped in Indochina had reached an average of “70 tons of bombs for every square mile of Vietnam and about 500 pounds of explosives for every man, woman and child in the country.”²² In total, during the 10 years of air war (1964-1973) US forces dropped a total of 7,662,000 tons of ordnance in Southeast Asia.²³ However, bombing was very unequally distributed, with the largest amount dropped over the Republic of Vietnam (RoV) in the South, and a much smaller percentage dropped on the DRV in the North, where the city of Vinh was located.²⁴

In the whole period of US involvement in Vietnam, only 22 percent of air war sorties were flown over the DRV while 45 percent took place over the RoV.²⁵ During 1968 and 1969, nearly 1,000,000 tons of ordnance was dropped in the RoV annually, five times the maximum annual amount dropped on the DRV until then. Bombing in the DRV and the RoV did not only differ regarding the amount of explosives dropped, but also in the strategies, tactics, and targets. In contrast to the bombing of the DRV, which will be described in more detail below, bombing in the RoV did not focus on industrial targets or urban areas,²⁶ but was concentrated on “interdiction, harassment, and sometimes reprisal” with “area saturation bombing” common in sparsely populated rural areas used by the NLF/NVA,²⁷ as well as close air support during ground battles.²⁸ Consequently, the impact of the war on cities was different in the RoV. While in the DRV,

21 Littauer, Raphael/Uphoff, Norman Thomas (eds.) (1972): *The Air War in Indochina*. Boston. 9.

22 Thayer, Thomas C. (1985): *War without Fronts. The American Experience in Vietnam*. Boulder. 79.

23 Clodfelter, Micheal (1995): *Vietnam in Military Statistics. A History of the Indochina Wars, 1772–1991*. Jefferson. 21.

24 Littauer/Uphoff (1972), 168.

25 Thayer (1985), 81.

26 However, “During the fighting which followed the Tet offensive of 1968, tactical air strikes extended even into the cities themselves”. Littauer/Uphoff (1972), 11.

27 Littauer/Uphoff (1972), 10.

28 Thayer (1985), 83–86.

cities were evacuated during the times of most intense bombing, the urban population in the RoV rose, partly because people fled from the war in the countryside. As a result, the urban population of the South increased two- to threefold. By 1968, it was estimated, 6,800,000 out of the 17,200,000 South Vietnamese lived in urban centres, amounting to 40 percent of the total population.²⁹ By the end of the war, nearly 43 percent of the RoV population was living in urban areas. Large numbers of the urban population were refugees from the countryside (between 1965 and 1975 perhaps as many as 10 million people were displaced, representing about 47 percent of the population of the RoV). In an extreme case, the population of Đà Nẵng (the RoV's second largest city) rose by 21.1 percent (58,300) in only one year (1967-1968) as a result of the Tet offensive. In addition to many war-displaced refugees, urban growths was to a large extent due to regular rural-urban migration.³⁰

4. Bombing of the DRV: The Rolling Thunder, 1965-68, and Linebacker, 1972, Campaigns

From early 1964 on, the US government had sped up planning for air operations against the DRV.³¹ In August that year the two first air strikes on the DRV were carried out as a reprisal for the “Tonkin incident”.³² Yet, as retaliatory strikes did not deter the DRV from its goal to achieve unification of Vietnam by military means, planning by the US turned to a sustained, gradually increasing air war campaign against the DRV.³³ This campaign, named *Rolling Thunder*, began in early 1965 and lasted until November 1968. It was thus the “longest sustained strategic air bombardment in history”.³⁴ The campaign aimed at a number of goals:

“In keeping with the thinking that Hanoi was not only providing men and logistic support for the NLF but was also effectively directing their operations, it was assumed that this air attack would help to win the war in the South. The

29 Littauer/Uphoff (1972), 63.

30 Thrift, Nigel/Forbes, Dean (1986): *The Price of War. Urbanization in Vietnam 1954–85*. London. 123.

31 Clodfelter, Mark (1989): *The limits of air power. The American Bombing of North Vietnam*. New York. 45.

32 Littauer/Uphoff (1972), 36–37.

33 Clodfelter (1989), 53–57.

34 Clodfelter (1989), 218.

direct aims were to pressure Hanoi into withdrawing its support of the NLF, to cripple the strategic industries within North Vietnam (of which there were few), and to interrupt the lines of communication along which supplies were moving south. Another aim was to strengthen the morale of pro-government forces in South Vietnam by demonstrating the depths of the US commitment to the struggle.”³⁵

These goals translated into different targets: military targets; the transportation system; petroleum, oil, and lubricant (POL) storage facilities; power plants; production facilities.³⁶ The Rolling Thunder campaign was severely constricted by political considerations, including fear of drawing the People’s Republic of China (PRC) into the war and escalating the conflict to a global scale. Initially, a 30 mile radius around Hanoi and a 10 mile radius around Haiphong were specifically excluded from bombing. Targets were selected in Washington and had to be approved by the Office of the Secretary of Defence, the Department of State, and the White House. Washington also insisted that the numbers of civilian casualties be kept as low as possible. These considerations prevented actions that might have been undertaken if only military considerations were followed, for example the bombing of dikes, air strikes close to the Chinese border, or the mining of Haiphong harbour.³⁷

In total, 643,000 tons of bombs were dropped on the DRV during Rolling Thunder, it was estimated that the campaign destroyed 77 percent of the DRV’s ammunition depots, 65 percent of its POL storage, 59 percent of its power plants, 55 percent of the major bridges, 39 percent of the railroad shops, 12,521 vessels, 9,821 motor vehicles, as well as 1,966 railroad cars and engines.³⁸ Even though the major urban centres Hanoi and Haiphong were initially excluded from bombing and later on only relatively few targets were attacked in these areas, other cities suffered large scale destruction: “Reports indicate that the cities of Dong Hoi, Ninh Binh, Phu Ly, Bac Giang, Yen Bai, and Son La were virtually levelled. Serious damage was sustained in the larger cities such as Nam Dinh, Thai Nguyen, Viet Tri and Vinh.”³⁹ Despite the intention to limit civilian casualties, 80 percent of the 36,000 casualties of 1965-66 alone were civilians.⁴⁰ In total,

35 Littauer/Uphoff (1972), 12.

36 Littauer/Uphoff (1972), 39–43.

37 Littauer/Uphoff (1972), 37–40. Clodfelter (1989), 43–44.

38 Clodfelter (1989), 221–222.

39 Littauer/Uphoff (1972), 47.

40 Littauer/Uphoff (1972), 48.

“about 52,000 North Vietnamese civilians were slain by Rolling Thunder.”⁴¹

Despite this massive destruction and the human and economic costs it inflicted, it was judged that this had had no impact on the DRV’s resolve and capabilities to continue the war, since “the damage [...] was more than offset by military and economic aid from China and the USSR, [...] even a small portion of the transportation and trail system to the South was sufficient to maintain an adequate flow of men and material, and [...] the North Vietnamese possessed a more than adequate supply of manpower for repair, reconstruction and work on the [Ho Chi Minh, added by author] Trail”.⁴² Furthermore, the population of the DRV was quick to rebuild the damage caused by bombing in its urban centres. By 1971, many houses had been rebuilt by private initiative.⁴³

In October 1968, US President Johnson ordered the end of Rolling Thunder to turn to negotiations with the DRV government.⁴⁴ Yet, after the Rolling Thunder campaign officially ended in November that year, the US continued bombing of the DRV on a smaller scale, “mostly near the Demilitarized Zone and at the entrances to the Ho Chi Minh trail.”⁴⁵ This limited air campaign continued until April 1972. Negotiations between the US and the DRV, however, came to a stop in late 1971. By then, the US’s goals under the new President Nixon were much more limited than in the 1960s under Johnson and now focused on a *peace with honour* that would entail a withdrawal of American troops from Vietnam without immediate victory of the DRV and the National Liberation Front (NLF).⁴⁶ Accordingly, Nixon’s “Vietnamization”⁴⁷ policy had included the withdrawal of personnel and equipment necessary for air war. However, the DRV’s offensive beginning on March 30th 1972 prompted a return of large numbers of aircraft and personnel that contributed to the failure of the offensive. In addition to attacking DRV/NLF forces in the South, air strikes, were also

41 Clodfelter (1995), 222.

42 Littauer/Uphoff (1972), 46–48.

43 Smith, John T. (1998): *The Linebacker Raids. The Bombing of North Vietnam, 1972*. London. 156.

44 Clodfelter (1989), 147.

45 Littauer/Uphoff (1972), 42–43.

46 Clodfelter (1989), 147–149.

47 Between 1968 and 1972, “Vietnamization” of the war led to an increase of sorties flown by the South Vietnamese Air Force from 4 percent to 13 percent. Thayer (1985), 80.

again carried out over the DRV and the Haiphong harbour was mined on May 8th.⁴⁸

In retaliation for the North Vietnamese offensive, Linebacker I (May – October 1972) subjected the DRV to “extremely heavy bombing in an attempt to change the North’s policy towards South Vietnam.”⁴⁹ Nixon publicly described the goals of the new campaign as “(a) to reduce the supplies being imported into North Vietnam; (b) to destroy the existing military supplies in North Vietnam; and (c) to stop or interdict the flow of troops and material from the North to the battlefields in the South.”⁵⁰ In general, the Linebacker I campaign was very similar to the Rolling Thunder campaign in terms of overall strategy and targets attacked.⁵¹ As a consequence of the campaign’s goals, attacks focused on the transport system⁵² and military targets. Similar to the earlier campaign, bombing was initially prohibited within a 30 mile strip next to the Chinese border as well as within a 10 mile radius around both Hanoi and Haiphong. However, political control was much lessened. Washington was much less involved in the selection of targets; responsibility and decision making power of local commanders was much greater than during Rolling Thunder.⁵³

The Linebacker I campaign led to bombing even more intense than Rolling Thunder. In the seven month April to October 1972, 155,548 tons of bombs were dropped on the DRV. This was one-fourth of the amount dropped during the more than three years of Rolling Thunder. Additionally, new weapon systems made bombing more effective and damaging and the turn to conventional warfare by the DRV made it more vulnerable to air attacks.⁵⁴ In addition to Haiphong harbour other northern harbours were mined, therefore “between May and December no merchant ships were able to use any North Vietnamese port.”⁵⁵ The Linebacker I attacks destroyed most of the electric power capacities, so that in Hanoi only military facilities could receive power. Between 20 and 40 percent of the city’s

48 Smith (1998).

49 Smith (1998), 7.

50 Smith (1998), 60.

51 Clodfelter (1989), 148. The same targets were attacked because “by 1971 most of the damage had been repaired and industry was working again with the help of aid from the Soviet Union and China.” Smith (1998), 47.

52 Smith (1998), 77.

53 Clodfelter (1989), 163–164.

54 Clodfelter (1989), 166–173.

55 Smith (1998), 76.

inhabitants were evacuated.⁵⁶ The damage caused by bombing as well as the failed 1972 offensive and the unfavourable conditions in the ground war in the RoV compelled the DRV leadership to return to negotiations. The DRV and the US agreed on a settlement in October 1972 and Nixon stopped the Linebacker I campaign on the 23rd of that month. However, the RoV government did not agree to the agreement's terms. The DRV, in turn, did not agree to changes demanded by the RoV.⁵⁷ Convinced of the Linebacker campaign's contribution to force the DRV to compromise, the US again turned to bombing to force the North Vietnamese to a settlement. The new bombing campaign was named Linebacker II.

“The December 1972 Linebacker campaign, however, differed from its namesake in *how* it was to attain ‘peace with honour.’ Nixon had intended Linebacker I to accomplish his objective by wrecking North Vietnam’s war-making capacity; he intended Linebacker II to destroy the North’s will to fight while demonstrating to [RoV president] Thieu that America would remain committed to Southern independence.”⁵⁸

Between the 18th and the 29th December, 36,452 tons of ordnance was dropped on the DRV in the Linebacker II campaign.⁵⁹ It was thus the “most concentrated bombing campaign inflicted on any country up until that time.”⁶⁰ Targets included air defence installations and oil storage facilities, as well as the electricity and transport networks. Destruction was so heavy that for example in Haiphong, no targets remained to be attacked on the December 27th. Because of the location of many targets in the urban centres of Hanoi and Haiphong, 1,318 civilians were killed in Hanoi and 305 in Haiphong despite evacuations. In contrast to earlier bombing, the psychological impact on the urban populations was intense.⁶¹

On December 26th, the heaviest Linebacker II attack was carried out. On the morning of the next day, the DRV leadership agreed to resume talks with the US in January 1973. Nixon, in turn, ordered a stop to all bombing north of the 20th parallel on the 29th. In late January 1973, the DRV and the US signed the Paris Peace Accords. According to Clodfelter, the Linebacker II campaign had contributed to the settlement, but other

56 Clodfelter (1989), 167.

57 Clodfelter (1989), 170–176.

58 Clodfelter (1989), 176. See also Smith (1998), 118.

59 Clodfelter (1989), 224.

60 Smith (1998), 7.

61 Clodfelter (1989), 189–195.

factors also impacted the decision by both the DRV and the RoV to agree to its provisions.⁶²

5. *Mid- to Long-Term Effects of Bombing in Vietnam*

The bombing campaigns over the DRV resulted in the heaviest bombing the world had seen until then. In this light, surprisingly few studies of the mid- to long-term effects of the war in general and bombing in particular on Vietnam's urban centres have so far been carried out. The study by Miguel and Roland⁶³ on the long-term impact of bombing in Vietnam focusses on a wide set of variables: physical capital, human capital, population, poverty rates, and consumption. It found that for urban districts in North Vietnam, the effect of bombing on poverty (measured in 1999) was negative, possibly because of government policies assisting heavily bombed areas.⁶⁴ They further found that by 2002 "living standards in the provinces that bore the brunt of the US assault are largely indistinguishable from other areas."⁶⁵ Regarding physical infrastructure, they found a positive relationship between bombing intensity and 1999 access to electricity, which they also explain by post-war policy choices.⁶⁶ Bombing intensity is also not related to post-war district population densities, revealing that bombing had, if any, only a very short-term impact on district population densities. The study's interpretation is that most displaced households simply returned to their home areas once the conflict had ended. This was possible because of the "elaborate responses" to intense bombing, "including hiding for extended periods in [...] bomb shelters and in underground tunnels."⁶⁷

In sum, the study by Miguel and Roland found no robust long-run impacts of US bombing on local poverty rates, consumption levels, or population density in Vietnam over 25 years after the end of the American War.⁶⁸ Opening their study with the assumption that institutions that influ-

62 Clodfelter (1989), 188–201.

63 Miguel, Edward/Roland, Gérard (2011): The Long-Run Impact of Bombing Vietnam. In: *Journal of Development Economics* 96, 1. 1–15.

64 Miguel/Roland (2011), 9.

65 Miguel/Roland (2011), 10.

66 Miguel/Roland (2011), 10.

67 Miguel/Roland (2011), 12.

68 Miguel/Roland (2011), 14.

ence the long-term impact of bombing are very country specific, they consequently attribute the absence of long-term impact of bombing on inter-regional economic divergence partly to “ingenious strategies employed by the North Vietnamese to limit the damage to physical infrastructure [...] especially in urban areas;” and to the “major Vietnamese government reconstruction effort after the war.”⁶⁹

Thrift and Forbes have studied the patterns of Vietnamese urbanization between 1954 and 1985. They found that “between 1954 and 1976, allowing for the very unusual circumstances pertaining during the period of the Second Indochina War, overall percentage urban population growth was very slow. However, [...] this slow percentage rate of growth conceals a quite significant absolute increase. In absolute terms, the urban population all but doubled.”⁷⁰ They attribute this development to the „particular historical combination of the state, the economy and civil society in the Democratic Republic“, as well as the “particular form and style of management of the North Vietnamese urban system”.⁷¹ Looking at this period in more detail, they found that heavy bombing during the war led to a decline of the urban population between 1965 and 1973. This was due to direct and indirect effects of bombing. The major direct effect was the destruction caused by bombing. Targets included the major cities Hanoi and Haiphong as well as the main industrial centres of the DRV. Of the 28 bombed provincial capitals, 12 “were razed to the ground.” As an indirect effect, over 500,000 people were evacuated from urban areas and industries were dispersed to the countryside. Despite the devastation caused by bombing in urban centres, the urban system quickly re-adjusted once bombing stopped. The overall urban population of the DRV in 1974 was larger than that in 1965.⁷² Because bombing had destroyed living space (one source claims that almost one quarter of all living space in Hanoi was destroyed), the return of evacuees caused severe overcrowding. The housing shortage continued well into the 1980s.⁷³

Miguel and Roland’s argument for the importance of country specific institutions for an understanding of long-term war impact can be extended to argue that regarding the long-term impact of bombing on individual

69 Miguel/Roland (2011), 10–11.

70 Thrift/Forbes (1986), 88.

71 Thrift/Forbes (1986), 87.

72 Thrift/Forbes (1986), 96–97.

73 Thrift/Forbes (1986), 148–151.

cities, institutions and policies impacting post-war urban development are not only country-specific, but city-specific. Similarly, their argument for “the accumulation of evidence across many settings” to “create a convincing picture of war’s long-run economic effects” can be modified to propose that to paint a detailed picture of the impact of war on the urban environment of a particular city, a localized investigation of the destruction caused by bombing as well as of the policies and processes of post-war urban development is necessary. Taking up these arguments, the following section provides the case study of Vinh City as a detailed example of the impacts of destruction and reconstruction on the built environment of a Vietnamese city.

6. *The Urban Environment of Vinh City between Destruction and Reconstruction*⁷⁴

Today, Vinh is the capital of Nghệ An province covering an area of 105km² and with a population of 480,000 in 2013. It is also the economic, administrative, and cultural centre of North-Central Vietnam.⁷⁵ The city’s rise to this position began with the construction of a new site for imperial examinations in the area of today’s city and the relocation of the provincial administrative centre to Vinh in 1803 and 1804, respectively.⁷⁶ As the provincial centre of administration and examinations, Vinh came to form an administrative unit combining different functions and the place through which the surrounding region was integrated into wider networks of power, trade, and information. As the seat of the provincial mandarin, the city linked the region to a centralized system of rule.⁷⁷ Regarding trade net-

74 This section is based on chapter 3 of my dissertation Kaiser, Tim (2016): *Transnational Impact on Urban Change. Modern Projects in Vinh, Vietnam*. University of Passau. Passau.

75 Quyết định 270/QĐ-TTg của Thủ Tướng Chính Phủ về việc phê duyệt nhiệm vụ điều chỉnh quy hoạch chung thành phố Vinh, tỉnh Nghệ An đến năm 203, tầm nhìn 2050. 31.03.2013. Cục Thống kê Nghệ An (2011): *Niên giám thống kê Nghệ An 2010*. Statistical Yearbook 2010. Vinh. 29.

76 Nguyễn Quang Hồng (2003): *Thành Phố Vinh. Quá Trình Hình Thành Và Phát Triển (1804–1945)*. [Vinh City: The Process of Establishment and Development]. Vinh. 22–24. Chu Trọng Huyền (1998): *Lịch Sử Thành Phố Vinh*. Tập 1. [History of Vinh City, Part 1.] Vinh. 21–22.

77 Nguyễn Quang Hồng (2003), 24–27, 68–71. Chu Trọng Huyền (1998), 23.

works, Vinh becoming the provincial centre elevated the status of its existing market to that of the main trading place in the region. Additionally, members of the administration and the military located in the citadel provided new and growing markets for surrounding villages.⁷⁸ With little production taking place in Vinh itself, its economic role was mainly that of a regional trading place. Through its strategic location at the intersection of the Mandarin Road and a road linking land-locked Laos and the Mekong with the North Vietnamese coast, Vinh connected its surroundings also to inter-regional and international trade.⁷⁹ Increased integration into wider networks of information and technology expressed itself for example in the design of Vinh's citadel that combined a Vauban-style design with traditional local elements and materials.⁸⁰ The only available population number for pre-colonial Vinh is provided by Del Testa who puts it at "perhaps 3,000 inhabitants."⁸¹

The French military forces captured Vinh's citadel on 20 July 1885 and established a residency in Vinh in the same year.⁸² After the first years of colonial rule saw little change in Vinh, from around 1900 on Vinh and the nearby located centres of Truong Thi and Ben Thuy became a major focus of investments by the colonial state and private enterprises.⁸³ Of particular importance was Vinh's location along new railroad lines that strengthened the city's role as a transport hub, as well as the location of railroad indus-

78 Del Testa, David W. (2007): Vinh, the Seed that would Grow Red. Colonial Prelude, Revolutionary City. In: *Historical Reflections* 33, 2). 305–325. 313.

79 Nguyễn Quang Hồng (2003), 52. Chu Trọng Huyền (1998), 35.

80 Nguyễn Quang Hồng (2003), 28–29. Mantienne, Frédéric (2003): The Transfer of Western Military Technology to Vietnam in the Late Eighteenth and Early Nineteenth Centuries. The Case of the Nguyễn. In: *Journal of Southeast Asian Studies* 34, 3. 519–534.

81 Del Testa (2007), 313.

82 Del Testa (2007), 314. Nguyễn Quang Hồng (2003), 61. Chu Trọng Huyền (1998), 39–40.

83 Del Testa (2007), 315. Del Testa, David W. (1999): Imperial Corridor. Association, Transportation and Power in French Colonial Indochina 1. In: *Science Technology & Society* 4, 2. 319–354. Nguyễn Quang Hồng (2003), 82–87, 101–102. Nguyễn Quốc Hồng/Nguyễn Văn Huệ/Bùi Văn Quế (2004): Lịch Sử Phong Trào Công Nhân Và Công Đoàn Thành Phố Vinh (1929–2002). [History of Workers' and Trade Unions' Movement in Vinh City (1929–2002)]. Vinh. 18.

tries in Trường Thi.⁸⁴ Public investments up to the First World War mainly consisted of infrastructure projects such as streets connecting the three areas, other works focused on the citadel area where most French residents lived.⁸⁵

As the importance of industries and trade located in Trường Thi and Bến Thủy grew relative to the administrative function of Vinh, both were elevated to the rank of separate urban centres in 1916 (Bến Thủy) and 1917 (Trường Thi).⁸⁶ In 1927, the three centres were merged into the urban centre Vinh-Bến Thủy with a population of about 20,000.⁸⁷ Thus, an administrative unit had been formed that incorporated the administrative, educational, and trade centre in Vinh, the harbour and industries in Bến Thủy, and the railroad atelier in Trường Thi. Yet, the economic development that had led to growth in Vinh in the early 20th century was short-lived. Due to the Great Depression and the unstable political situation created by the anti-colonial movement that was particularly strong in Vinh and its surrounding area, nearly no new investments were carried out by the French in Vinh during the 1930s.⁸⁸

During WWII, when the French colonial regime initially cooperated with the Japanese and was disposed of it during the last months of the war, most of Vinh's industries were relocated or abandoned. When the Việt Minh took power in Vinh in August 1945, only the railway atelier in Trường Thi and the depot by the train station were operational, all private factories had been closed.⁸⁹ Throughout 1946, tensions between the returning French and the newly established DRV mounted and open hostilities broke out in the last month of that year.⁹⁰ Hồ Chí Minh had called for

84 Del Testa (1999), 319–354. Wright, Gwendolyn (1991): *The Politics of Design in French Colonial Urbanism*. Chicago, 181–182. Nguyễn Quang Hồng (2003), 95, 102.

85 Del Testa (2007), 315. Nguyễn Quang Hồng (2003), 91, 104–105.

86 Nguyễn Quang Hồng (2003), 107–109.

87 Nguyễn Quang Hồng (2003), 152.

88 Nguyễn Quang Hồng (2003), 196, 201.

89 Hoàng Ngọc Anh/Hà Văn Tài/Nguyễn Bá Dũng/Nguyễn Quang Vinh (2003): *Lịch Sử Thành Phố Vinh. Tập II (1945–1975)*. [History of Vinh City, Part II (1945–1975)]. Vinh. 9.

90 Duiker, William J. (2000): *Ho Chi Minh: A Life*. New York. 346–398. Nguyễn Quang Vinh/Dương Thanh Bình (2007): *Lịch sử Phường Cửa Nam – Thành phố Vinh*. [History of Cửa Nam Ward – Vinh City]. Vinh. 56–57. Hoàng Ngọc Anh (et al.) (2003), 39–48.

a scorched earth policy in case war with France broke out; it was carried out in Vinh over a five-month period starting in early 1947. The city's population and facilities were dispersed throughout the countryside. In total 20,000 tons of materials were dismantled; what could not be transported was destroyed, including the citadel, 1,335 houses, 300 train coaches, and twelve locomotives.⁹¹ In addition to destruction carried out by the Việt Minh in 1947, the French bombarded and destroyed remaining infrastructure such as bridges during the war. Thus, when the war ended and the Việt Minh returned to power in Vinh in 1954, the city had been nearly totally destroyed.⁹²

The early history of Vinh in the independent DRV shows little marks of large scale development projects or the formulation of comprehensive policies for social reorganisation of the city through urban planning or design until the early 1960s. In general, policies focused on the transformation of the economy and the establishment of a functioning state. Collectivisation of agriculture in the countryside was mirrored by expropriation of entrepreneurs and the establishment of collective ownership and state management of their enterprises in the late 1950s.⁹³ By 1960, 40 factories and enterprises had been established by central and local agencies in Vinh, the industrial workforce had grown to 10,000 workers.⁹⁴ The creation of an electricity network, including a new power plant, was assisted by the

91 Hoàng Ngọc Anh (et al.) (2003), 48–55. Bùi Thiết (1984), Vinh – Bến Thủy. Hà Nội. 52.

92 Hoàng Ngọc Anh (et al.) (2003), 103.

93 Hoàng Ngọc Anh (et al.) (2003), 120–122. Nguyễn Quang Hồng/Hoàng Kim Oanh (2005): *Lịch Sử Mặt Trận Tổ Quốc Việt Nam Thành Phố Vinh (1930–2005)*. [History of the Vietnamese Fatherland Front of Vinh City (1930–2005)]. Vinh. 159. Chương trình và nội dung công tác tháng 09 năm 1961. Ủy ban hành chính (UBHC) Nghệ An, UBHC Thị xã Vinh. 08.09.1961. Archive Ủy ban nhân dân (UBND) Nghệ An, P01 ML02 HS 38, paginated 117–120. Báo-Cao tình hình thực hiện kế hoạch năm 1960 và 3 năm. Ủy ban hành chính Nghệ-an, Ủy ban hành chính Thị-xã Vinh. 09.03.1961. Archive UBND Nghệ An, P01 ML02 HS 38, paginated 110–116.

94 Hoàng Ngọc Anh (et al.) (2003), 125. Nguyễn Quốc Hồng (et al.) (2004), 127. Liên hiệp các tổ chức hữu nghị/Hội hữu nghị Việt – Đức tỉnh Nghệ An/Ủy Ban Nhân Dân Thành Phố Vinh (eds.) (2011): *Những dấu ấn lịch sử về tình hữu nghị Việt – Đức thời kỳ đầu xây dựng lại thành phố Vinh 1973–1980*. [Some historical imprints of the Vietnamese-German friendship in the early period of rebuilding Vinh City 1973–1980]. Vinh. Liên hiệp các tổ chức hữu nghị; Hội hữu nghị Việt – Đức tỉnh Nghệ An; Ủy Ban Nhân Dân Thành Phố Vinh. Vinh. 12–13.

USSR with experts and 400,000 Roubles.⁹⁵ The state also invested in the social infrastructure focusing on re-establishing Vinh as an educational centre, including a university and two colleges, as well as a primary school in each of the 5 urban areas (khu phố) and secondary schools. Additionally, hospitals (one built with assistance of the People's Republic of Poland), cinemas, a theatre, a library, and a museum commemorating the Nghệ Tĩnh Soviets were constructed.⁹⁶ Up until the 1960s, Vinh's inhabitants largely constructed their own housing, using mainly wood and bamboo. Such buildings were repeatedly destroyed by fires, storms and floods.⁹⁷ As a result of the separation of the country into two zones and the subsequent creation of two states (the DRV in the North and the RoV in the South) Vinh became the most important centre of industry and transportation as well as of education and other administrative functions in the south of the DRV.

The early 1960s saw the first important decisions for planning and development of Vinh in the DRV. A resolution of the Vietnamese Workers' Party's (VWP) Politburo called for Vinh to become a "Socialist City, to serve well industrial development, for production and material as well as cultural life of the urban working population."⁹⁸ While this quote puts emphasis on the socioeconomic role the city was to play, the call for a *socialist city* also implied the creation of a socialist urban environment. As part of implementation of this goal, a first public housing program was to replace dwellings that were destroyed by a fire in August 1961.⁹⁹ In 1961

95 Bùi Thiết (1984), 152–157.

96 Liên hiệp các tổ chức hữu nghị (et al.) (2011), 13. Hoàng Ngọc Anh (et al.) (2003), 129–133. Letter sent by the Administrative Committee of Nghe An Province to the Prime Minister, the State Planning Committee, the Ministry of Health, and the Ministry of Finance: Trích yếu yêu cầu xây dựng Bệnh viện Vinh. 28.11.1961. Archiv UBND Nghe An, P01 ML02 HS 484, paginated 19–21. Letter of the State Planning Committee sent to the Ministry of Finance, the Administrative Committee of Nghe An Province, the Planning Committee of Nghe An Province, the Office of the Prime Minister: Trích-yêu Cập vôn xây dựng bệnh viện tam thời. 27.04.1962. Archiv UBND Nghe An, P01 ML02 HS 484, paginated 38.

97 Hoàng Ngọc Anh (et al.) (2003), 105–109. Ban thuyết minh nhiệm vụ xây dựng nhà cửa trong năm 1963. UBHC Nghe An. n.d. Archive UBND Nghe An, P01 ML02 HS 484, paginated 57–58.

98 Nghị quyết của Bộ Chính trị về quy hoạch xây dựng thành phố Vinh. Đảng Lao động Việt Nam Ban chấp hành trung ương. 28.12.1961. Archiv UBND Nghe An, P01 ML02 HS 484, paginated 1–4.

99 Hoàng Ngọc Anh (et al.) (2003), 110, 145.

and 1962, a small number of simple three-storey apartment buildings were constructed close to the city centre.¹⁰⁰ Designs, plans, and funds were supplied by central agencies, while construction materials were sourced locally.¹⁰¹

In 1963, Vinh's status was elevated from town to city, after it had been designated to become one of five industrial centres of the DRV in 1961.¹⁰² By 1964, the city covered an area of 26km² and its population had grown to 72,000.¹⁰³ At the same time, authorities aimed at creating a socialist urban environment in Vinh. However, this general goal was not translated into concrete plans for the city's development before the Rolling Thunder bombing campaign started and Vinh became one of its targets. On 5 August 1964, the US bombed Vinh for the first time. In May and June 1965, most inhabitants as well as goods, machines and institutions were evacuated.¹⁰⁴ As Vinh and nearby harbours were important nodes in the transport of supplies and troops to the war in South Vietnam, US bombing especially targeted transport infrastructure.¹⁰⁵ While a number of workshops as well as the power plant remained in Vinh, intensified bombing in 1968 prompted the evacuation of nearly all remaining facilities and inhabitants.¹⁰⁶

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- 100 Ban thuyet minh nhiem vu xay dung nha cua trong nam 1963. UBHC Nghe An. n.d. Ban bao cao ve tinh hình va xác định mức độ hoàn thành nhiệm vụ cấu c.t 62 thị xã Vinh. Bộ Kiến trúc, Công ty kiến trúc Vinh Công trường 62 Thị xã Vinh. 16.12.1961. Archive UBND Nghệ An, P01 ML02 HS 484, paginated 17–18.
- 101 Biên bản cuộc họp ban đơn gia công trường thị xã Vinh. Bộ kiến trúc, Công ty Kiến trúc Vinh. 27.10.1961. Archive UBND Nghệ An, P01 ML02 HS 484, paginated 8–9. Letter of the State Planning Committee to the Administrative Committee of Nghệ An Province: Duyệt khai toán kinh phí xây dựng khu nhà ở Thị xã Vinh. 20.09.1961. Archive UBND Nghệ An, P01 ML02 HS 484, paginated 5.
- 102 Hoàng Ngọc Anh (et al.) (2003), 138, 144–146. Quyết định 148-CP về việc thành lập thành phố Vinh trực thuộc tỉnh Nghệ An. Hội Đồng Chính phủ. 10.10.1963.
- 103 Nguyễn Quốc Hồng (et al.) (2004), 147.
- 104 Hoàng Ngọc Anh (et al.) (2003), 167–175.
- 105 Bùi Thiết (1984), 143. For targets in and around Vinh see for example Southeast Asia Team Project CHECO (28.03.1966): Rolling Thunder: March – June 1965. Department of the Air Force, Headquarters Pacific Air Forces, Tactical Evaluation Center. Project Contemporary Historical Examination of Current Operations Report. Christiansburg. Overton, James B. (n.d.): Rolling Thunder: January 1967 – November 1968. Department of the Air Force, Headquarters Pacific Air Forces, Directorate, Tactical Evaluation CHECO Division. Project Contemporary Historical Examination of Current Operations Report. Christiansburg.
- 106 Hoàng Ngọc Anh (et al.) (2003), 187.

As shown above, even prior to the destructions caused by Rolling Thunder, the DRV aimed at creating a *socialist* urban environment in Vinh. While initially what *socialist* meant in this context remained obscure, subsequent planning for the city picked up the most characteristic features of the ideal socialist city and put them into concrete projects. These features of the *Socialist City* had been developed initially in the Soviet Union and became influential in the DRV from the mid-1950s on, mainly through Soviet advisors and Vietnamese planners and architects trained in the USSR or other socialist countries.¹⁰⁷ In the following, the main elements of socialist urban planning will be introduced briefly.

Many of the differences to cities in capitalist countries result from the *state-monopoly of the means of production* and *central planning*. “The nationalization of all resources, and the substitution of centralized planning for the market to develop and allocate them, has obvious consequences for the city.”¹⁰⁸ Standardized state-owned apartments were seen as the ideal housing form, although due to economic difficulties privately and cooperatively owned housing was accepted. Still, land for the construction of these was allocated by the state, as were state-owned apartments. Standardisation and norms were supposed to attain equality of living conditions. As the market was abolished, ideal allocation and distribution were to be achieved by centralized planning. In contrast to a capitalist city, in which land use and allocation is largely determined by the market, the socialized ownership of all means of production and the pre-dominant role of the state in the economy of socialist states ideally allowed for “active planning, that is the active projection of economic activities (allocation of resources, distribution of income) as opposed to the passive forecasting of spontaneous development. [...] this is the universal characteristic of socialist planning.”¹⁰⁹ Socialist theory of urban transformation regarded the plan as the means to achieve politically defined ideals of a Socialist City. The planner’s job was to organize the built environment in such a way as to balance different types of land use by scientific means. The city was to be planned as one, creating no distinction or division between different ar-

107 Đặng Thái Hoàng (1999): Kiến trúc Hà Nội. Thế kỷ XIX – Thế kỷ XX. Architecture of Hà Nội, 19th to 20th century. Hanoi. Logan, William Stewart (2000): Hanoi, Biography of a City. Sydney.

108 Bater, James H. (1980): The Soviet City. Ideal and Reality. London. 3–4.

109 Fisher, Jack C. (1962): Planning the City of Socialist Man. In: Journal of the American Institute of Planners 28, 4. 251–265. 251–252.

eas of the city in terms of access to services or the quality of residential areas.

Among those elements that form part of the ideally planned socialist urban environment, the *city centre* took a special place, because it was functionally different from residential and productive areas.¹¹⁰ Contrary to centres of capitalist cities, where commerce and finance dominate, the socialist centre was to be the “political-cultural-administrative centre” of the city, the region or the nation corresponding to the respective city’s position in the urban hierarchy.¹¹¹ The centre therefore served as the place for important public buildings and monuments; main roads and squares were to provide avenues and place for the staging of large scale demonstrations and parades.¹¹²

The *socialist housing complex* has been described as the most indicative element of socialist urban planning.¹¹³ As a residential complex complete with infrastructure the socialist housing complex was intended as a unit that structured the living environment in cities. The complex’ size was calculated based on reasonable walking distances, the number of its inhabitants was calculated on the capacity of a primary school, usually numbering between 3,000 to 4,000, sometimes rising to 7,000.¹¹⁴ The housing complex served as the lowest unit for provisions with public goods and collective consumption; the next higher order of residential planning and administration was the *mikrorayon*, consisting of several housing complexes and providing housing for about 8,000-12,000 inhabitants. These were to include relatively large areas of open and green space, institutions for child care, education, and health as well as shops and other services catering to daily needs.¹¹⁵ The next higher unit was the residential complex of 30,000-50,000 inhabitants, followed by the urban district of

110 Bater (1980), 27–30.

111 Fisher (1962), 255.

112 Bater (1980), 27–30.

113 Smith, David M. (1996): *The Socialist City*. In: Andrusz, Gregory D. (ed.): *Cities after Socialism. Urban and Regional Change and Conflict in Post-Socialist Societies*. Oxford. 70–99. 76. French, R. A. (1995): *Plans, Pragmatism and People. The Legacy of Soviet Planning for Today’s Cities*. London. 81.

114 Richter, P. (2006): *Der Plattenbau als Krisengebiet: Die architektonische und politische Transformation industriell errichteter Wohngebäude aus der DDR am Beispiel der Stadt Leinefelde*. Hamburg. Online available at <http://ediss.sub.uni-hamburg.de/volltexte/2006/3041/pdf/Text.pdf> [accessed 02.05.2013]. 34.

115 Bater (1980), 102.

100,000-300,000 inhabitants and the urban zone of about 1 Mio inhabitants.¹¹⁶ This hierarchy was supposed to provide each urban resident with equal access to public services.

As part of planning for the creation of socialist urban environments in the DRV's cities in general, planning for Vinh started in the second half of the 1960s. Guidelines issued by the National Reconstruction Committee in July 1968 formulated strategies for new and re-constructed cities throughout the DRV. These posited industrialisation and production as a city's most important functions, but also lay out orientations for the design of the urban environment. Important elements of an ideal Socialist City are exemplified in these guidelines: centralized and hierarchical planning, the city as a centre of socialized production and egalitarian consumption, the city centre as a symbol of a new society and its achievements, the importance of the Central Place, housing complexes as structuring urban units, standardized housing conditions. The general concept for the urban design was the compact city, in which the widespread construction of multi-storey buildings would make economic use of space and resources, as well as provide an urban appearance. Housing complexes were supposed to hierarchically structure the urban area. A target of 6m² living space per person was supposed to be achieved 15 years after the end of the war. The city centre was regarded as expressing the cultural and political function of the city, incorporating local natural conditions, as well as symbols of revolution, history, and technological progress, to be achieved by the construction of impressive high-rise buildings and monuments. While difficult economic conditions after the war were acknowledged, the guidelines emphasised the communicative effect of the city centre; therefore the construction of several permanent high-rise buildings in the city centre was projected for the immediate time after the war. The city centre was also intended to be highlighted by the envisioned Central Place surrounded by administrative and cultural buildings. In addition to ideological symbolism, reconstruction priority was mostly placed on the restoration of pre-war buildings and structures. Reconstruction would thus focus on industries and public buildings; self-supplied temporary shelter was regarded as sufficient for the urban population.¹¹⁷

116 Smith (1996), 75.

117 Circular of the State General Reconstruction Committee sent to Administrative Committees of provinces and centrally administered cities, Administrative Committees of Autonomous Regions, Ministries, General Offices: Trích thông tư

By 1968, with the bomb war still ongoing, these countrywide guidelines had been incorporated into a draft plan for the reconstruction of Vinh by the Institute for Urban Planning of the Ministry of Architecture (MoA).¹¹⁸ This plan set out most important aspects for the creation of a socialist urban environment in Vinh, although following plans would make slight changes in the urban design and adjust technical aspects, for example on the water supply and sewerage systems, or increase the percentage of five-storey houses to be built.¹¹⁹

The 1968 plan stipulated the reduction of countrywide standards for housing space and the built environment (including space used for housing, public buildings, greenery and public space) per person in Vinh's specific conditions. Housing was to be provided mainly in three to five-storey buildings (65 percent) and two-storey buildings. The city's population was planned to be 50,000 five years after the war, rising to 100,000 inhabitants 15 years after the war. For the first two years, its population would be restricted to 20,000 persons essential for reconstruction and the functioning of factories and public institutions. As Vinh's future was seen as that of an industrial city, all destroyed factories were to return and expand in Vinh.¹²⁰

The urban layout of Vinh would adhere to the principle of a compact city, moving agriculture out of the city centre. The plan divided the city into four zones: administrative buildings would be clustered in Trường Thi and along Nguyễn Thái Học road; the area of Quang Trung Street and the

huong dan cong tac nghien cuu va lap van kien Phuong huong nhiem vu quy hoach kien thiet do thi va lap van kien *Phuong Huong nhiem vu quy hoach kien thiet do thi 15 nam sau chien thang va 5 nam dau*. 01.07.1968. Archiv UBND Nghe An, P01 ML03 HS 48, paginated 9–22.

118 Thanh pho Vinh, Thuyet minh tom tat quy hoach 15 nam, 5 nam va 2 nam sau khi hoa binh lap lai, Danh sách cán bộ nghiên cứu và thiết kế. Vien quy hoach thanh pho. 01.02.1968. Archiv UBND Nghe An, P01 ML03 HS 48, paginated 8.

119 Dư thảo Thuyet minh tom tat quy hoach xay dung thanh pho Vinh sau khi hoa binh lap lai. Bộ Kiến trúc, Viện quy hoạch thành phố. 1968. Archiv UBND Nghe An, P01 ML03 HS 50, paginated 67–82. Du thao, Bao Cao du kien quy hoach xay dung lai thanh pho Vinh sau khi hoa binh lap lai. Đảng bộ Nghệ An. 1970. Archive UBND Nghe An, P01 ML03 HS 50, paginated 51–62. Dư thảo, Nhiem vu va Phuong huong xay dung thanh pho Vinh sau ngay chien thang giac Mỹ xam luoc (1970). Bo kien truc. 1970. Archive UBND Nghe An, P01 ML03 HS 50, paginated 41–43.

120 Dư thảo Thuyet minh tom tat quy hoach xay dung thanh pho Vinh. Bộ Kiến trúc, Viện quy hoạch thành phố. 1968.

market would serve as the seat for state owned enterprises and banks. The industrial area would be split in two zones: one close to the harbour in Bến Thủy would consist of heavy and sea-related industries; the North-Western Industrial Zone to the north of the former citadel would mainly cater to transport-related businesses. Each of these functional zones would be accompanied by a designated housing area and zoning was intended to result in a clear separation of working and housing areas. At the same time spatial segregation according to employing enterprise or institution would take place. To create an “urban face”, construction of multi-storey housing was to take place first along the major roads, such as the road leading from the train station to the city centre.¹²¹

In the initial years, only housing groups would be constructed, these would later be upgraded to form housing complexes. A mixture of collective housing and family based apartments was planned for these complexes. The number of apartments, schools, nurseries, hospitals, etc. to be built was calculated from standardised figures for the provision of housing space and public services per person. The number of persons, in turn, was derived from the planned number of employees of the factories, enterprises, and institutions to be located in Vinh, plus “dependents.”¹²²

In addition to industrial, administrative, economic and residential areas, symbols representative of socialist victory would be part of the urban landscape. At the central square a Victory Monument would be erected; a Monument to the Martyrs was planned to be placed at the southern entry to the city centre. Vinh’s revolutionary history would be represented by a monument to the Nghệ Tĩnh Soviets in Bến Thủy. Other historical sites would be reconstructed buildings previously destroyed during US bombardments or museums telling of the history and revolutionary past of Vinh and Nghệ An.¹²³

By 1969 the Institute for Urban Planning of the MoA had prepared detailed projects (for electricity, roads, water, wastewater etc.) for the reconstruction of the city. The provincial Party and state authorities pressed for buildings such as an international guesthouse, the Nghệ Tĩnh Soviet Mu-

121 Dư thảo Thuyết minh tóm tắt quy hoạch xây dựng thành phố Vinh. Bộ Kiến trúc, Viện quy hoạch thành phố. 1968.

122 Dư thảo Thuyết minh tóm tắt quy hoạch xây dựng thành phố Vinh. Bộ Kiến trúc, Viện quy hoạch thành phố. 1968.

123 Dư thảo Thuyết minh tóm tắt quy hoạch xây dựng thành phố Vinh. Bộ Kiến trúc, Viện quy hoạch thành phố. 1968.

seum, a cinema and stadium, as well as the road, electricity and water networks, to be finished in late 1969 to serve the 1970 New Year festivities. The Department of Architecture was to prevent the private construction of wooden housing that did not conform to design.¹²⁴ The system of housing complexes was further elaborated in a 1970 draft plan by the MoA's Institute for Urban Planning. The timeframe for reconstruction in this draft was 15 years (1970-1985). By that time Vinh's population would rise to 150,000, these inhabitants would live in six to eight housing areas. Each housing area would consist of three to five sub-areas with 4,000 to 6,000 inhabitants and a size of 16 to 42ha each. Thus, all housing in Vinh would be located in an urban environment structured by housing complexes spatially separated according to their occupation and employer.¹²⁵

As the above cited documents show, detailed preparations for the reconstruction of Vinh had begun during the Rolling Thunder campaign of the 1960s. Actual reconstruction of Vinh started after the US stopped bombing the DRV as part of their negotiations strategy in late 1968.¹²⁶ Enterprises began to return to Vinh in the following year.¹²⁷ However, as by then no final reconstruction plan had been approved, reconstruction proceeded in piecemeal fashion. Efforts focused on the return of enterprises and public institutions (such as schools or the provincial hospital) to their former location in the city where they were housed in temporary wooden buildings. Reconstruction of enterprises focused especially on the production of construction materials. Efforts were undertaken to increase the local production of bricks, as construction continued to rely on traditional techniques. Another priority was the reconstruction of enterprises supplying foodstuff to returning residents. Additionally, roads were repaired, focusing on National Highway 1 and regional roads.¹²⁸

124 *Bien ban hoi nghi duyet thiet ke so bo cac cong trinh thi chinh cua thanh pho Vinh xd trong hai nam.* Uy ban hanh chinh Nghe An. 22.09.1969. Archive UBND Nghe An, P01 ML03 HS 51, paginated 3–5.

125 *Du Thao, nhien vu thiet ke va co so kinh te ky thuat cua quy hoach thanh pho Vinh-Cua Hoi.* Uy ban hanh chinh Nghe-an, Ban kien thiet co ban Tinh. 1970. Archive UBND Nghe An, P01 ML03 HS 51, paginated 17–68.

126 Turley, William S. (1993): *Reinventing Vietnamese Socialism.* Boulder. 94.

127 Nguyễn Quốc Hồng (et al.) (2004), 181–182. Hoàng Ngọc Anh (et al.) (2003), 198.

128 *Du kien ke hoach xay dung thanh pho Vinh nam 1974–1975. Bo Xay dung, Vien thiet ke Quy hoach thanh pho va Nong thon.* August 1973. Archiv UBND Nghe An, P01 ML03 HS 50, paginated 104–110. *Tinh hình thực hiện kế hoạch xây*

In general, reconstruction was much slower than envisioned. Among the most important shortcomings was a shortage in experienced and skilled cadres; those present lacked the capacity to comply with too complicated administrative procedures. Planning, implementation, and administration took place uncoordinated, resulting in time-lags and the waste of funds despite a sufficient number of workers. Although a draft plan had warned that it was based on experiences from the peace period of the 1950s and 1960s, and not on actually available economic data, overly optimistic estimates about the DRV's economic situation resulted in a lack of construction material.¹²⁹ Such difficulties seem to have resulted as much from unrealistic and overly ambitious planning as from actual shortcomings in the implementation of plans. It became increasingly clear that many of the structures-to-be-built were poorly designed and not adapted to local conditions.¹³⁰

While these problems affected the whole province of Nghệ An, the situation in Vinh was particularly serious.¹³¹ By 1971 Vinh's population had already grown to nearly 54,000 registered inhabitants (despite plans to

dung co ban quy I nam 1970 va ke hoach quy II nam 1970. Uy ban hanh chinh Nghe An. 23.03.1970. Archive UBND Nghe An, P01 ML03 HS 19, paginated 32–42.

- 129 Dư Thảo, nhiệm vụ thiết kế và cơ sở kinh tế kỹ thuật của quy hoạch thành phố Vinh-Cua Hoi. Ủy ban hành chính Nghệ-an, Ban kiến thiết cơ bản Tỉnh. 1970. Tình hình thực hiện xây dựng cơ bản 9 tháng, nhiệm vụ quý 4/1971 và chuẩn bị cho quý 1 năm 1972. UBHC Nghệ An. 23.10.1971. Archive UBND Nghệ An, P01 ML03 HS 18, paginated 186–201. Thuyết Minh tình hình thực hiện vốn đầu tư xđbc 9 tháng đầu năm 1971. UBHC Nghệ An, Ty Kiến trúc. 17.10.1971. Archiv UBND Nghệ An, P01 ML03 HS 22, paginated 75–76.
- 130 Letter of the Planning Committee of Nghệ An Province to the Department of Architecture of Nghệ An Province, the Department of Finance, the Bank for Reconstruction, the Committee for Reconstruction: Trích yếu: v/v duyệt nhiệm vụ xây dựng đường Quang Trung Thanh Vinh. 12.08.1970. Archive UBND Nghệ An, P01 ML03 HS 50, pagination unknown. Thuyết Minh tình hình thực hiện vốn đầu tư xây dựng cơ bản 6 tháng đầu năm 1971 toàn Ngành. UBHC tỉnh Nghệ An, Ty Kiến trúc. 23.07.1971. Archive UBND Nghệ An, P01 ML03 HS 33, 296, paginated 17–20. Báo cáo, Sơ kết, Tình hình xây dựng cơ bản 6 tháng đầu năm 1971, biện pháp thực hiện 6 tháng cuối năm và chuẩn bị cho vài năm tới. UBHC Nghệ An. 24.06.1971. Archive UBND Nghệ An, P01 ML03 HS 18, paginated 152–185.
- 131 Dự thảo, Phương án khôi phục thành phố (nội thành), từ năm 1971 đến năm 1973. Ủy ban hành chính thành phố Vinh. 21.09.1971. Archive UBND Nghệ An, P01 ML03 HS 52, paginated 30–43.

limit its population to 20,000 in the first two years of reconstruction and to 50,000 in the first five years), of which more than half were engaged in agriculture. This diluted the envisioned clear separation of urban from rural areas.¹³² Clearly, construction and administration could not keep up with the influx of people. Little had by then been achieved regarding the supply with state-owned housing. People constructed their own wooden housing, most enterprises and offices also erected wooden buildings, leading to the danger of destruction by fires. Because these buildings were usually only one storey high, space for the construction of housing in the city was soon in short supply. At the same time, agricultural land in the city's surroundings was reserved for the much needed production of food. While the lack of state-supplied housing could be alleviated by private efforts, shortages in the supply with food, services, and consumer goods could only to some part be lessened by the market.¹³³

In light of these shortcomings, the urban environment that emerged in Vinh between 1968 and 1972 bore little resemblance to the plans formulated for the city's reconstruction. As offices, public services, as well as factories and enterprises returned to the city, its population grew much faster than had been imagined. All of the principles of the plan had been compromised. Construction of housing took place individually; separation of housing and work place as well as between rural and urban areas was not enforced. The city's authorities did neither have the capacity nor authority to steer urban growth. At the same time, centralized authority at the provincial level was not able to effectively coordinate the efforts of different actors for reconstruction of the city. While planning had failed as an instrument projecting urban development, the structures of government and administration struggled with even reacting to unplanned urban growth. Hence, a first attempt at creating a socialist urban environment in Vinh had failed.

As described above the US resumed to bombing the DRV in April 1972,¹³⁴ and Vinh again was one of the most affected urban centres during the Linebacker campaigns. Already in late 1971 preparations had begun

132 Even worse, it was estimated that because of returning administrative offices, the number of inhabitants would rise to 80,000 by the end of 1973. Planning had estimated this number to be reached about five years later.

133 Dự thảo, *Phuong an khai phuc thanh pho (nội thành)*, từ năm 1971 đến năm 1973. Ủy ban hành chính thành pho Vinh. 21.09.1971.

134 Turley (1993), 141.

for renewed defence of Vinh against air strikes; from early 1972 on enterprises and offices were again evacuated to the countryside. Only about 3,000 people remained in Vinh to ensure air-defence and the protection of remaining facilities, as well as to carry out repairs on the vital transport network.¹³⁵ Bombing of Vinh resumed in the early hours of 10 April 1972 with an air strike bombing an area of 6km² and during 1972, the city was repeatedly bombed while the harbour in Bến Thủy and the Lam River were mined. As during the 1960s, bombing mainly targeted transport infrastructure.¹³⁶ When bombing stopped as the Paris Peace Agreement took effect in January 1973, nearly all efforts for reconstruction carried out in 1968-1972 had literally been reduced to nothing.¹³⁷

In late December 1972, planning for the reconstruction of Vinh had begun anew with a meeting of municipal and provincial leaders.¹³⁸ Reconstruction was planned to again follow the same plans and directions as during the period of reconstruction 1968 to 1972. Compared to earlier plans, the population would increase to around 60,000 people during the first three years (formerly 50,000 after five years). During the first years, 66 percent of housing would be in temporary one-storey houses, the rest in blocks of four to five-stories.¹³⁹ For the second time, reconstruction of Vinh would follow the ideal of the Socialist City. But contrary to the years around 1970, the second attempt of creating a socialist urban environment was carried out with assistance of the German Democratic Republic.

After the Paris Peace Agreement of January 1973 reconstruction of the DRV and its urban centres came into focus of international cooperation. In March that year, a delegation of high ranking GDR officials travelled to Hanoi to assure the DRV leadership of their government's willingness to

135 Nguyễn Quốc Hồng (et al.) (2004), 187.

136 Hoàng Ngọc Anh (et al.) (2003), 206–212. Smith (1998).

137 Nguyễn Quang Vinh/Dương Thanh Bình (2007), 89. Schwenkel, Christina (2014): *Traveling Architecture*. In: *International Journal for History, Culture and Modernity* 2 2. 155–174. 162.

138 Thông báo của Ủy ban hành chính Nghệ An v/v duyệt quy hoạch xây dựng thành phố Vinh. 29.01.1973. Archive UBND Nghệ An, P01 ML03 HS 50, paginated 99–103.

139 Dự kiến kế hoạch xây dựng thành phố Vinh năm 1974–1975. Bộ Xây dựng, Viện thiết kế Quy hoạch thành phố và Nông thôn. August 1973.

assist in the reconstruction of the country.¹⁴⁰ During the delegation's visit DRV Prime Minister Phạm Văn Đồng revealed a plan to assign each of the DRV's large cities to one socialist country for help in its reconstruction and requested the GDR's help in the reconstruction of Vinh.¹⁴¹ In May, a formal request was made by the VWP and the Government of the DRV in a letter to Willi Stoph, expressing "deep trust that [...] our people will continue to receive valuable assistance from the brotherly German Democratic Republic."¹⁴² On the same day, similar letters were delivered to the ambassadors of other socialist countries requesting help in the reconstruction of one city or province each.¹⁴³ On 20 June 1973, Willi Stoph informed Phạm Văn Đồng of the decision of the SED Central Committee and the GDR government to aid and assist in the planning and reconstruction of Vinh.¹⁴⁴

This decision was soon followed by the first visit of a GDR delegation to Vinh consisting of high ranking representatives of GDR planning and

140 Beschluß des Präsidiums des Ministerrates der DDR über die Reise einer Partei- und Regierungsdelegation der DDR in die DRV vom 7. März 1973. 07.03.1973. Bundesarchiv Berlin, BArch DC 20/4418, not paginated.

141 Stenographische Niederschrift der offiziellen Gespräche zwischen den Partei- und Regierungsdelegationen der Deutschen Demokratischen Republik und der Demokratischen Republik Vietnam unter Leitung der Genossen Willi Stoph und Pham Van Dong im Präsidentenpalast zu Hanoi (1. Tag, 16.3.1973). Bericht über den Besuch einer Partei- und Regierungsdelegation der DDR unter Leitung des Mitglieds des Politbüros des ZK der SED und Vorsitzenden des Ministerrates der DDR, Genossen Willi Stoph, in der Demokratischen Republik Vietnam vom 14.3. bis 19.3.1973. 16.03.1973. Bundesarchiv Berlin, BArch DC 20/4419, not paginated

142 Letter number 14/Ng-CP of the Office of the Government of the DRV to Chairman of the Council of Ministers of the GDR, Willi Stoph. 19.05.1973. National Archives Centre III, Phong Phu Thu Tuong, HS 11167.

143 Telegramm des Botschafters der DDR in der DRV: Information über Bitte der DRV um Wiederaufbau seiner Städte. 19.05.1973. Bundesarchiv Berlin, BArch DC 20-I/4/2875, not paginated.

144 Brief des Vorsitzenden des Ministerrats der Deutschen Demokratischen Republik an Ministerpräsidenten der DRV Pham Van Dong. 20.06.1973. National Archives Centre III, Phu Thu tuong, HS 5590, not paginated. While the reasons to partner Vinh with the GDR are not entirely clear, Vinh's role as the most important industrial centre in the southern DRV before its destruction on one hand as well as the reconstruction experiences and the economic strength of the GDR on the other seem to have played a role in the decision. Kaiser (2016): 71–72.

construction institutions.¹⁴⁵ A bilateral agreement was signed by Phạm Văn Đồng and Willi Stoph on 22 October 1973, stipulating that the GDR would assist in

- preparing the General Development Plan as well as in planning housing areas, including individual buildings by sending GDR experts to Vinh,
- equipping a planning office and construction enterprises,
- training of cadres,
- and rationalizing production of building materials, by providing experts, machinery, and equipment.¹⁴⁶

After a second GDR delegation's visit in November/December 1973, planning for reconstruction was revised. The city's population was estimated to reach 80,000 in 1975, calculated from the workforce necessary for the operation of the city and its industries, plus the number of dependents. However, in contrast to previous plans, permanent housing would only be supplied by the state to those who had to be relocated from designated construction sites, amounting to 12,000 people who would be housed in five-storey communal housing blocks (60 percent) and family-apartment buildings (40 percent).¹⁴⁷ The city's population was planned to rise to 120,000-150,000 during the first 20 years of reconstruction, at which point the housing stock would mainly (85 percent) consist of four to five-storey buildings, with a much lower percentage of one and two-storey buildings (10 percent) and high-rises above five stories (5 percent).¹⁴⁸

For the year 1974, reconstruction was supposed to focus on housing, public services, and transport infrastructure, with the Quang Trung Hous-

145 Báo-cáo của Bộ Xây Dựng về kết quả làm việc với đoàn chuyên viên công hòa Dân chủ Đức về xây dựng sang giúp ta quy hoạch và xây dựng thành phố Vinh. 18.07.1973. Archive UBND Nghệ An, P01 ML03 HS 51, paginated 128–132.

146 Hiệp định giữa Chính phủ nước Cộng hòa Dân chủ Đức và Chính phủ nước Việt nam Dân chủ Cộng hòa về việc Cộng hòa Dân chủ Đức giúp thiết kế và xây dựng thành phố Vinh. 22.10.1973. Archive UBND Nghệ An, P01 ML03 HS 51, paginated 133–135.

147 Kế hoạch xây dựng thành phố Vinh 1974–1975. Ủy ban hành chính Nghệ An. 17.01.1974. Archive UBND Nghệ An, P01 ML03 HS 50, paginated 114–130.

148 Tờ trình về phương hướng nhiệm vụ làm qui hoạch và kế hoạch xây dựng năm 1974 của thành phố Vinh (Nghệ An). Ủy ban Hành chính tỉnh Nghệ An. February 1974. National Archives Centre III, Phong Phú Thu Tuong, HS 5590, paginated 30–34.

ing Complex designated as the most important construction project.¹⁴⁹ During 1974 to 1975, 40,000m² of housing were to be constructed in the Quang Trung Housing Complex, with 10,000m² in 1974.¹⁵⁰ The types of buildings were chosen from Vietnamese catalogues, allowing for detailed planning of the required materials and funds. The GDR delegation had proposed to start construction in Quang Trung with Vietnamese building designs to ensure an early start of construction and to raise the confidence of the Vietnamese partners, and the delegation itself had participated in choosing the building types. Public buildings to be built in the first two years were to provide services and entertainment; plans for the construction of the city centre were abandoned.¹⁵¹

Construction activities began in 1974 based on preliminary guidelines. Planners were particularly concerned with balancing the immediate needs of post-war reconstruction and the long-term goals of creating a socialist urban environment. The GDR experts therefore refused to participate in the construction of provisional projects, emphasising the need for early implementation of long-term goals. On the other hand, German planners tried not to restrict future developments by hasty decisions that would have long-term negative effects. The way pursued to achieve such a balance was seen in “complex planning” that allowed for the start of important projects, such as the Quang Trung Housing Complex, before the overall General Development Plan was completed.¹⁵²

Building on the above cited plans, mutual planning by Vietnamese and Germans began in February 1974 after the first members of the German expert group had arrived in Vinh. Vietnamese-German cooperation in the

149 Tờ trình về phương hướng nhiệm vụ làm qui hoạch và kế hoạch xây dựng năm 1974 của thành phố Vinh (Nghệ An). Ủy ban Hành chính tỉnh Nghệ An. February 1974. Kế hoạch xây dựng thành phố Vinh 1974–1975. Ủy ban hành chính Nghệ An. 17.01.1974.

150 Kế hoạch xây dựng đường phố Quang Trung năm 1974. Ủy ban Hành chính tỉnh Nghệ An. February 1974. National Archives Centre III, Phong Phú Thu Tuong, HS 5590, paginated 37–42.

151 Kế hoạch xây dựng thành phố Vinh 1974–1975. Ủy ban hành chính Nghệ An. 17.01.1974.

152 Mönnig, Hans-Ulrich (1987): Industrialisierung ländlicher Gebiete und Erfüllung von Grundbedürfnissen in Entwicklungsländern. In: Wissenschaftliche Zeitschrift der Hochschule für Architektur und Bauwesen Weimar 33, 3. 126–131. Bericht des Verwaltungskomitees Nghệ An über die Generalbebauungsplanung der Stadt Vinh und über die Vorbereitung einiger ausgewählter Vorhaben. 30.05.1975. Bundesarchiv Berlin, BArch DH 1/228287, not paginated. P. 6.

planning of Vinh focused on two projects: the General Development Plan and the Quang Trung Housing Complex.

In May 1975, the Administrative Committee of Nghệ An presented the result of cooperation on the *General Development Plan* to the Ministry of Construction (MoC) for approval. It is the most comprehensive summary of the project to create a socialist urban environment in Vinh.¹⁵³

In the plan, the central area was described as the “highlight of urban design.” It was to be located along the southern west-east axis, forming a series of three functionally differentiated zones. The first (arriving from the west) would serve as a service and trade centre, including the market that would be reconstructed at its former location. The second zone would be located in the area of the Trần Phú, Trung Tâm (today Trường Thi Street) and Phan Bội Châu (today Lê Duẩn Street) streets intersection. As the city centre, this area would incorporate political, administrative, and cultural institutions for leading and planning of society. In a third zone, stretching along Phan Bội Châu street south towards the banks of Lam River, educational institutions would be located. In combination with the street layout, these three zones would form three axes that were intended to structure the city. The first, stretching along Phan Đình Phùng and Trần Phú streets from west to east, would highlight entry to the city close to the citadel by a group of high-rise buildings; its northern side would be lined by representative housing buildings. The second axis would connect the “places of the heroic fight against the US-aggressors” in the Bến Thủy-Quyết Mountain area with the Central Square. The southern entry to the city would be marked by Quyết Mountain and a recreational park in Bến Thủy; the street leading into the city would create vistas over the city centre and Quang Trung Street towards high-rise buildings marking the northern city entry. The third axis would follow Trung Tâm Street and connect the city to Cửa Lò and Cửa Hội. In the city centre, a central park would be located to the west of Trung Tâm Street. The layout of this axis would allow views towards the Trường Sơn mountain range bordering on Laos. All three axes would converge on a central monumental square, with the Square of Victors at its centre. Designs for the Square of Victors proposed a monumental Hồ Chí Minh statue to be placed in its centre. The city silhouette would be highlighted by high-rise buildings marking the entries to the city, while

153 Bericht des Verwaltungskomitees Nghe An über die Generalbebauungsplanung der Stadt Vinh und über die Vorbereitung einiger ausgewählter Vorhaben. 30.05.1975.

an even higher group of buildings would mark the city centre. In addition to industrial and residential areas as well as the above described three central zones, three large recreational parks were planned: one in the former citadel, a central park, and a park in the Bến Thủy area.¹⁵⁴

The creation of this urban environment was envisioned to take about 20 years. While the first phase of reconstruction had lasted for two years (1974 to 1975), the second phase would last for a five year period from 1976 to 1980. More detailed planning for this period was part of the General Development Plan of 1975 and was carried out in cooperation with the GDR group. This early phase was seen as particularly important, as it would crucially influence later development of the city. Thus, it focused on projects and measures that would ensure later implementation of the General Development Plan. Steering construction activities was regarded as the most important measure, the whole city area had by then been put to use by returning inhabitants, enterprises, and institutions. The plan differentiated between areas in which construction would be forbidden, those which had to be cleared for construction activities, and areas for provisory bamboo buildings. Industries were to be located in the designated industrial areas. Focus during the years 1975-1980 would be on the construction of housing, with the Quang Trung Housing Complex regarded as a model and experimental project.¹⁵⁵

The focus on housing construction during the first phase and the postponement of the city centre to a later period reflect GDR construction policies that focused on housing construction on urban fringes. This strategy proved controversial. As described above, former plans had called for construction activities to focus on the city centre, while housing would be left to private initiative. However, even after the decision to focus on housing was jointly made by Vietnamese and German planners in Vinh, this focus was repeatedly criticized. Lê Duẩn, General Secretary of the Central Committee of the Communist Party of Vietnam (CPV), proved to be the highest ranking critic of the focus on housing. Visiting Vinh in April 1979, he underlined the role of Vinh as the country's third most important city. Ac-

154 Bericht des Verwaltungskomitees Nghe An über die Generalbebauungsplanung der Stadt Vinh und über die Vorbereitung einiger ausgewählter Vorhaben. 30.05.1975.

155 Bericht des Verwaltungskomitees Nghe An über die Generalbebauungsplanung der Stadt Vinh und über die Vorbereitung einiger ausgewählter Vorhaben. 30.05.1975.

ording to him, the city centre would have to clearly reflect Vinh's political and economic importance symbolized by public buildings, on the expense of housing construction.¹⁵⁶ Differing views on the strategy for Vinh's reconstruction also surfaced when Deputy Chairman of the State Planning Committee Phạm Hào called for a reduction of housing construction during talks in Berlin, without the agreement of authorities in Vinh or Hanoi.¹⁵⁷

The General Development Plan expresses the planning and design ideals serving as guidelines for the reconstruction of Vinh as a Socialist City. However, it was not approved by the DRV or later the Socialist Republic of Vietnam (SRV) government because it provided only outlines and no detailed planning of infrastructure.¹⁵⁸ Furthermore, work on the General Development Plan was complicated by a central decision to unite Nghệ An Province with its southern neighbour Hà Tĩnh, forming Nghệ Tĩnh Province in 1976. Thereby Vinh became the centre of a much larger area, and planning would now have to incorporate the southern bank of the Lam River, the former provincial border.¹⁵⁹ In 1977, a revised General Development Plan was presented to the MoC and submitted to the Council of Ministers for approval.¹⁶⁰ It complemented the 1975-plan with planning

156 Aktenvermerk über ein freundschaftliches Gespräch mit der Leitung der Provinz und dem Provinzbauamt anlässlich des Besuches des stellv. Leiters des Arbeitsstabes Vietnam beim Ministerium für Bauwesen der DDR, Genosse Gradl. Angelegt vom Leiter der Arbeitsgruppe der DDR-Spezialistengruppe in Vinh, Brambach. 06.07.1979. Bundesarchiv Berlin, BArch DH 1/28517, not paginated.

157 Information des Wirtschaftsrates der Botschaft Hanoi über den Arbeitsbesuch des Botschafters, Genossen Doering, in Vinh – vom 28.12. bis 30.12.1976. 03.01.1977. Bundesarchiv Berlin, BArch DH 1/26638, not paginated.

158 Information des Wirtschaftsrates. 03.01.1977.

159 Jahresabschlußbericht 1975 der Arbeitsgruppe der DDR-Spezialisten Vinh/DRV. 27.02.1976. Bundesarchiv Berlin, BArch DH 1/28672, not paginated. Mönning, Hans-Ulrich (1989): *Industrialization of Rural Areas. A Concept for the Infrastructural Development and Satisfaction of Basis Needs in the Developing Countries*. In: *Schriften der Hochschule für Architektur und Bauwesen Weimar 75*. 3–29.

160 Brief des Stellvertreters des Ministers für Bauwesen an den Stellvertreter des Vorsitzenden des Ministerrates Genossen, Dr. Weiss: Zusammengefasste Einschätzung zur Mitwirkung bei der Projektierung und beim Aufbau der Stadt Vinh und zum Plattenwerk Dao tu. 12.08.1977. Bundesarchiv Berlin, BArch DH 1/26638, not paginated. Jahresabschlußbericht 1976 der Arbeitsgruppe der DDR-Spezialisten Vinh/SRV. 10.02.1977. Bundesarchiv Berlin, BArch DH 1/26638, not paginated.

for a larger area south of the Lam River and detailed infrastructure projects, leaving intact the above described general orientation for the urban environment.¹⁶¹ However, by 1979 the Council of Ministers had still not occupied itself with the General Development Plan, prompting the then head of the GDR expert group in Vinh to complain: “obviously the partner, especially the Ministry of Construction, still underestimates the importance of a General Development Plan for the overall development of a city”.¹⁶² In the end, the first Development Plan for Vinh would be approved only in the early 1990s, long after Vietnamese-German cooperation in Vinh had ended and after the Vietnamese government abandoned the goal to create *socialist* urban environments.

The second major project that was mutually planned and designed, the *Quang Trung Housing Complex*, was to provide an example of socialist housing, planning and construction techniques, as well as the institutions and structures necessary for its administration. Its basic design was presented to the Vietnamese MoC in May 1974.¹⁶³ After a number of changes requested by the Ministry were incorporated in the plan, it stipulated that the Quang Trung Housing Complex would provide housing for 15,600 inhabitants in 2,480 apartments with a total floor space of 65,800m² (ca. four m² per person).¹⁶⁴ 30 percent of the inhabitants would occupy collective accommodation, while the remaining 70 percent would be provided

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- 161 Brief des Volkskomitees der Provinz Nghe An an das Politbüro des ZK der KPV und an Ministerpräsidenten der SRV: Kurzfassung der Entwicklungstendenzen und Aufgaben bei der Planung und beim Aufbau der Stadt Vinh. 08.11.1977. Bundesarchiv Berlin, BArch DH 1/28287, not paginated.
 - 162 Jahresabschlußbericht 1978 der DDR Spezialistengruppe Vinh/SRV und Information über die Erfüllung des Regierungsabkommens zur Unterstützung bei der Projektierung und dem Aufbau der Stadt Vinh /SRV. February 1979. Bundesarchiv Berlin, BArch DH 1/29712, not paginated.P. 3.
 - 163 Zusammenfassende Information des Leiters der Arbeitsgruppe der DDR-Spezialisten Vinh/DRV über den Stand der Tätigkeit der DDR-Arbeitsgruppe in Vinh. 25.05.1974. Bundesarchiv Berlin, BArch DH 1/28668, not paginated.
 - 164 Letter of the Ministry of Construction sent to the Chairman of the Administrative Committee of Nghe An Province: v/v qui hoạch đường phố Quang Trung và đơn vị nhà ở. Bo Xay dung. 28.06.1974. Archive UBND Nghe An, P01 ML03 HS 50, paginated 163–164. Quyết định về đồ án thiết kế qui hoạch chi tiết khu phố Quang Trung thành phố Vinh. Bo Xay dung. 13.11.1974. Archive UBND Nghe An, P01 ML03 HS 50, paginated 161–162.

with family apartments.¹⁶⁵ In contrast, previous planning by provincial authorities had envisaged a much larger percentage of the population to be housed in collective housing blocks (60 percent).¹⁶⁶ The layout and the facilities of the Quang Trung Housing Complex followed the typical ideals of a socialist housing complex. According to its plan, it was divided into five groups (A-E), each inhabited by 2,180 to 4,410 people in six to nine blocks. Public buildings would include crèches, kindergartens, schools, a hotel, and a cinema, as well as a neighbourhood centre including facilities for shopping, services, cultural activities, as well as communications.¹⁶⁷ The German expert group estimated the housing complex on both sides of Quang Trung Street to be completed by 1976 or 1977.¹⁶⁸

Intended as a prototype that would fully express the advantages of a housing complex in bringing about a socialist lifestyle, its function as a model for the development of Vinh went beyond its physical structures and layout. The housing complex was to provide an example for Vietnamese authorities on how to design, create, and manage an urban environment that supplied the city's inhabitants with housing and public facilities in one all-encompassing project. Its buildings were intended to serve as model designs suitable to the conditions of their time but adaptable to future developments.¹⁶⁹ Furthermore, Quang Trung would serve as a testing field for management instruments such as the allocation of apartments, collection of rents, legal status of apartments and buildings, as well as the administration of the complex. Mutual planning and construction activities were seen as providing a practical training ground for Vietnamese cadres and workers, who would later on apply the experiences of Quang Trung in other housing complexes. As such, Quang Trung was supposed to be the

165 Quyết định về đồ án thiết kế qui hoạch chi tiết khu phố Quang Trung thành phố Vinh. Bộ Xây dựng. 13.11.1974.

166 Kế hoạch xây dựng thành phố Vinh 1974–1975. Ủy ban hành chính Nghệ An. 17.01.1974.

167 Liên hiệp các tổ chức hữu nghị et al. (2011). Erläuterungsbericht Entwurf Wohngebietszentrum Quang Trung in der Stadt Vinh. 19.09.1977. Bundesarchiv Berlin, BArch DH 1/28294, not paginated.

168 Zusammenfassende Information des Leiters der Arbeitsgruppe der DDR-Spezialisten Vinh/DRV. 25.05.1974.

169 Jahresabschlussbericht 1978 der DDR Spezialistengruppe Vinh/SRV. February 1979.

first step in a large scale housing program. The General Development Plan envisioned the construction of 6 additional housing complexes.¹⁷⁰

Contrary to Vietnamese expectations, GDR experts did not immediately assist in the design of completely new housing blocks. To ensure that construction of Quang Trung would soon begin and the targeted 10,000m² of housing space would be completed in 1974 the GDR expert group convinced their Vietnamese colleagues to construct the first four housing blocks according to existing Vietnamese designs.¹⁷¹ The jointly developed building concept was planned to be applied beginning with the fifth housing block and was continuously modified according to experiences gathered during application.¹⁷² Its design provided those living in family apartments with electricity, private sanitary and cooking facilities, as well as running water piped into the apartments by a centralized water supply. Balconies provided private open space, while the first floor, half underground, provided storage space.¹⁷³ The Quang Trung series allowed for considerable diversity in the combination of different building sections,¹⁷⁴ and was recommended by the MoC for further use in Vietnam.¹⁷⁵

170 Bericht des Verwaltungskomitees Nghe An über die Generalbebauungsplanung der Stadt Vinh und über die Vorbereitung einiger ausgewählter Vorhaben. 30.05.1975.

171 Information des Stellvertreters des Leiters der Arbeitsgruppe Vinh über Tätigkeit und Ergebnisse der Arbeitsgruppe in Vinh in der Zeit vom 15.2. bis 31.3.1974. 25.03.1974. Bundesarchiv Berlin, BArch DH 1/28668, not paginated.

172 Berichterstattung des Leiters der Arbeitsgruppe über die Tätigkeit der Gruppe im Zeitraum vom 1.8. bis 2.9.1974. 04.09.1974. Bundesarchiv Berlin, BArch DH 1/28668, not paginated. Schwenkel (2014).

173 For floor plans see appendix 2 in Purtak, Udo (1982): Voraussetzungen und Entwicklung des Wohnungsbaus unter humiden tropischen Bedingungen dargestellt am Beispiel des Aufbaus der Stadt Vinh in der Sozialistischen Republik Vietnam. Dissertation zur Erlangung des akademischen Grades Doktor eines Wissenschaftszweiges (Dr.-Ing.). Technische Universität Dresden, Dresden. Fakultät für Bau-, Wasser- und Forstwesen des Wissenschaftlichen Rates.

174 Appendix 2 in Purtak (1982). Jahresabschlußbericht 1975 der Arbeitsgruppe der DDR-Spezialisten Vinh/DRV. 27.02.1976.

175 Information des Leiters der Arbeitsgruppe der DDR-Spezialisten Vinh/SRV zum Stand der Realisierung des "Abkommens zwischen der Regierung der DDR und der Regierung der SRV über die Hilfe und Unterstützung bei der Projektierung und dem Wiederaufbau der Stadt Vinh" zum 30.9.1977. 03.10.1977. Bundesarchiv Berlin, BArch DH 1/27193, not paginated.

On 1 May 1974, the ground-breaking ceremony of the Quang Trung Housing Complex took place at block A1.¹⁷⁶ Over the following years, shortages in materials and workers, often due to the ongoing war, as well as poor coordination between different agencies continuously delayed construction in Vinh, especially of housing in the Quang Trung Complex. The end of the war in 1975 diverted even more resources as the focus of reconstruction shifted to the south.¹⁷⁷ This situation was compounded by tensions between the SRV on one side and the PRC and Democratic Kampuchea on the other that escalated into open conflict in the late 1970s.¹⁷⁸ China's closing of the border and war increased the overreliance on Vietnam's underdeveloped ports, further prolonging shipping of essential goods to Vietnam.¹⁷⁹ Projects carried out with assistance of the PRC were abandoned or continued relying on other resources. Most importantly, mobilisation diverted workers and resources from the reconstruction of Vinh to the armed forces.¹⁸⁰

Furthermore, according to a report by the expert group leader from February 1976, housing construction had never been a priority for Vietnamese decision makers.¹⁸¹ From mid-1976 on, SRV officials called for cooperation to shift to public buildings on the expense of housing construction. The GDR continued to insist on focusing on the construction of

176 3. Information über die Tätigkeit und Ergebnisse der AG Vinh für den Zeitraum vom 5.4.–5.5. 09.05.1974. Bundesarchiv Berlin, BArch DH 1/28668, not paginated.

177 Kaiser (2016), 100–120.

178 Westad, Odd-Arne/Quinn-Judge, Sophie (eds.) (2006): *The Third Indochina War: Conflict between China, Vietnam and Cambodia, 1972–1979*. London.

179 Einschätzung des Zentrums für Information und Dokumentation der Außenwirtschaft zu den Importbeziehungen der sozialistischen Länder zur sozialistischen Republik Vietnam. 1979. Bundesarchiv Berlin, BARCH SAPMO DY 30 17828. Nr. 15/79, Reihe C.

180 Jahresabschlußbericht 1978 der DDR Spezialistengruppe Vinh/SRV. February 1979. Pp. 2, 18. Brief des Leiters der Arbeitsgruppe der DDR-Spezialisten Vinh/SRV an den Leiter des Arbeitsstabes Vietnam: 1. Besuch der Partei- und Staatsdelegation, 2. Kongreß über Stadtplanung und Wohnungsbau, 3. Wohngebiet Quang Trung, 2. Ziele für das Planjahr 1978 im Wohnungsb., 5. Film – Filipov, 6. Weihnachten und Jahreswechsel in der AG. (05.01.1978): Bundesarchiv Berlin, DH 1/28514.

181 Brief des Leiters der Arbeitsgruppe der DDR-Spezialisten Vinh/Vietnam an den Leiter des Arbeitsstabes Vietnam des Ministeriums für Bauwesen: Fertigstellung bzw. Übergabe nutzungsfähiger Wohnungen im Wohngebiet Quang Trung. 16.02.1976. Bundesarchiv Berlin, BArch DH 1/28510, not paginated.

Quang Trung to create a completed and functioning example of a socialist housing complex as an expression of GDR solidarity. Still, by late 1976 GDR experts concluded that the Quang Trung Housing Complex would not be completed in the agreement's timeframe.¹⁸²

By the end of the original cooperation period in 1978, all housing blocks in groups A and B (planned for 4,490 inhabitants), as well as two blocks in group C had been completed. Structural works of three additional group C blocks were completed, as were foundations of one block in group D. Only one kindergarten in group A had been completed, structural works of one nursery were nearly finished. Works on the school had not yet begun.¹⁸³ In total, far less than 50 percent of the housing complex had been completed during the original agreement's duration. These delays (as well as delays at other joint projects) prompted the SRV and the GDR to extend the agreement for two further years until 1980.¹⁸⁴ However, during 1979 and 1980, the number of workers at the housing complex continued to drop, while construction material shortages became even more severe. Problems of poor construction quality and lacking maintenance persisted until the end of cooperation. Additionally, electricity shortages heavily impacted housing conditions and water supply.¹⁸⁵

Over the seven years of 1974 to 1980, 21 blocks providing 35,533 m² of housing in 1,712 units were completed in the eastern part of Quang Trung,

182 Briefe des Stellvertreters des Ministers für Bauwesen an den Stellvertreter des Vorsitzenden des Ministerrats der DDR, und den Stellvertreter des Vorsitzenden der Staatlichen Plankommission: Vorbereitung der VIII. Tagung des Wirtschaftsausschusses DDR/SRV. 18.11.1976. Bundesarchiv Berlin. BArch DH 1/26638, not paginated. Information des Wirtschaftsrates. 03.01.1977.

183 Jahresabschlußbericht 1978 der DDR Spezialistengruppe Vinh/SRV. February 1979.

184 Biên bản về sự sửa đổi hiệp định ngày 22-10-1973 giữa chính phủ nước Cộng Hòa Dân Chủ Đức và chính phủ nước Cộng Hòa Xã Hội Chủ Nghĩa Việt Nam về việc nước Cộng Hòa Dân Chủ Đức giúp đỡ trong việc thiết kế và xây dựng thành phố Vinh. 04.07.1978. National Archives Centre III, Phong Phu Thu Tuong, HS 11167, paginated 13–14.

185 Jahresabschlußbericht 1980 der DDR-Spezialistengruppe Vinh/SR Vietnam und Information über die Erfüllung des Regierungsabkommens zur Hilfe und Unterstützung bei der Projektierung und dem Aufbau der Stadt Vinh/ SR Vietnam. 31.12.1980. Bundesarchiv Berlin, BArch DH 1/29712, not paginated. Bericht der Arbeitsgruppe der DDR - Spezialisten Vinh/SR Vietnam: Stand der Realisierung des Abkommens und der Protokolle zur Unterstützung bei der Projektierung und beim Aufbau der Stadt Vinh durch die DDR per 15.01.1979. 25.01.1979. Bundesarchiv Berlin, BArch DH 1/28668, not paginated.

intended for 8,360 inhabitants (including 1,650 in dormitories). Two kindergartens, two nurseries, one school, and one element of the centre were completed. However, mainly due to power and water shortages the housing complex did not become completely operational and could not fully demonstrate the advantages of a socialist housing complex.¹⁸⁶

While in many cases completed buildings were of relatively low quality, they were regarded as an improvement to the overall situation in the SRV. Nevertheless, GDR experts were highly critical of the results in Quang Trung, attributing shortcomings mainly to poor oversight and management.¹⁸⁷ While the quality of work by Vietnamese construction workers improved over the years, diligence and precision remained below the Germans' expectations. Initially, concrete produced in Vinh was of poor quality, affecting the buildings' quality. Many installations and appliances did not fit or were not working well. In addition, once the blocks were handed over to be inhabited, their state deteriorated quickly as repairs and maintenance works were not carried out.¹⁸⁸

Yet, in light of the described difficulties, the results of cooperation were regarded as important achievements by both the Vietnamese and the Germans.¹⁸⁹ Also compared to assistance by other socialist countries in the reconstruction of Vietnam's cities, GDR efforts were regarded as exemplary

186 Jahresabschlußbericht 1978 der DDR Spezialistengruppe Vinh/SRV. February 1979. P. 6. Kaiser (2016), 114–120. Kaiser, Tim (2012): International Influences and Local Adaptation in Urban Development. A Research Note from Vinh City, Central Vietnam. In: Pacific News 37. 18–22. 20.

187 Abschlussbericht anlässlich der Leitungssitzung der SED Grundorganisation AG Vinh, Notizen zu Problemen des komplexen Wohnungsbaues Wohngebiet Quang Trung – Vinh. 30.08.1978. Bundesarchiv Berlin, BArch DH 1/28668. Not paginated.

188 Brief des Leiters der Arbeitsgruppe der DDR-Spezialisten Vinh/Vietnam. 16.02.1976. Jahresabschlußbericht 1978 der DDR Spezialistengruppe Vinh/SRV. February 1979. Abschlußbericht des kommissarischen Leiters der Abteilung Projektierung und komplexer Wohnungsbau und Bauleiter Quang Trung. 20.03.1979. Bundesarchiv Berlin, BArch DH 1/28668. Not paginated. Jahresabschlußbericht 1976 der Arbeitsgruppe der DDR-Spezialisten Vinh/SRV. 10.02.1977.

189 Báo Cáo Tổng kết 7 năm thực hiện Hiệp định về việc nước Cộng hòa Dân chủ Đức giúp đỡ quy hoạch thiết kế và xây dựng lại thành phố Vinh 1974–1980. UBND Nghệ Tĩnh. 26.05.1981. Archive UBND Nghe An, 1981, Tập lưu công văn, not paginated. Jahresabschlussbericht 1980 des Leiters des Arbeitsstabes Vietnam über die Tätigkeit und die Arbeitsergebnisse des Arbeitsstabes Vietnam. February 1981. Bundesarchiv Berlin, BArch DH 1/28517. Not paginated. Jahresab-

by both the GDR and the SRV.¹⁹⁰ Yet it was not so much the creation of a *socialist* urban environment that was held in highest esteem, but the creation of modern and effective construction industries¹⁹¹ which were re-

schlußbericht 1980 der DDR-Spezialistengruppe Vinh/SR Vietnam. 31.12.1980. Protokoll über die Erfüllung des zwischen der Regierung der DDR und der Regierung der SRV abgeschlossenen Abkommens über die Unterstützung bei der Projektierung und beim Aufbau der Stadt Vinh durch die DDR vom 22.10.1973. 05.12.1980. Bundesarchiv Berlin, BArch DH 1/29710, not paginated.

- 190 Jahresabschlußbericht 1979 der DDR-Spezialistengruppe Vinh/SRV und Information über die Erfüllung des Regierungsabkommens zur Unterstützung bei der Projektierung und dem Aufbau der Stadt Vinh/SRV. February 1980. Bundesarchiv Berlin, BArch DH 1/29712, not paginated. Bericht des Arbeitsstabes Vietnam beim Ministerium für Bauwesen: Jahresabschlussbericht 1976 über die Tätigkeit und die Arbeitsergebnisse des Arbeitsstabes Vietnam. March 1977. Bundesarchiv Berlin, BArch DH 1/26638, nicht paginiert. According to a GDR MoC report, only the USSR had assisted on a comparable scale in the development of Hanoi. Cuba had contributed to reconstruction by planning and supplying material for a number of projects. Czechoslovakia, Romania, Bulgaria, Poland, and North Korea had assisted in planning and designing, but not provided material aid for respective projects. (Übersicht über die Realisierung des Abkommens zur Unterstützung der SRV bei der Projektierung und beim Aufbau der Stadt Vinh. December 1977. Bundesarchiv Berlin, BArch DH 1/26638). The expert group judged in 1979 that due to GDR assistance Nghê Tinh's construction industry was most advanced compared to other provinces of the SRV. (Jahresabschlußbericht 1978 der DDR Spezialistengruppe Vinh/SRV. February 1979. Acknowledging the comprehensive aid program and its progress, Minister of Construction Đõ Mườì relocated a national conference on housing and urban planning from Hanoi to Vinh and promoted application of Quang Trung housing designs in other provinces. (Jahresabschlußbericht 1977 des Leiters der Arbeitsgruppe der DDR-Spezialisten Vinh/SRV und Information über die Erfüllung des Regierungsabkommens über die Unterstützung bei der Projektierung und dem Aufbau der Stadt Vinh durch die DDR. January 1978 Bundesarchiv Berlin, BArch DH 1/28672)

- 191 A further part of cooperation, the creation and upgrading of construction material industries in Vinh and Nghe An province, in general fared better than the housing complex, although these projects were plagued by many of the same problems. By the end of 1980, the following industrial projects had been completed, but productivity and production quality varied considerably: cement factory with a capacity of 12,000 t per year; sand and gravel extraction; quarry Rú Mườ; marble quarry Quỳ Hỏ; brick factories with capacities of 30,000 bricks and 2,000 tiles per year; stoneware production facilities; carpentry workshop; vehicle, machinery, and equipment repair workshops; transport enterprise to serve construction industries; warehouse enterprise for construction material, machinery and equipment; equipment of construction enterprises; air separation unit for the pro-

garded as providing an important basis for future development of Vinh and Nghệ Tĩnh Province.¹⁹² In addition to physical projects, provincial authorities highly valued the experience of cadres, planners, and workers to work with GDR experts. This was seen as having considerably improved their abilities and working styles, preparing them for future challenges.¹⁹³

While Quang Trung exemplified the best available housing for some, this modern built environment proved ill adapted to the lifestyle of others. For many who returned to Vinh after years of war it was the first instance of living in a concrete home, let alone in an apartment in a multi-storey building. This resulted in improper behaviour in the eyes of planners and authorities. The additions and modifications of the apartments, buildings, and layout of the housing complex, like extensions to balconies or vegetable gardens in open areas, are indicative of the shortcomings that were overcome by private initiative.¹⁹⁴ The assumptions underlying the planning of the housing complex had not been realized, such as water and electricity provision or equal access to apartments. Especially the last point led to misuse of power in the allocation, administration, and use of

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- duction of oxygen; ice production facility with a capacity of 3,650 t per year. Jahresabschlußbericht 1980 der DDR-Spezialistengruppe Vinh/SR Vietnam. 31.12.1980. Jahresabschlussbericht 1980 des Leiters des Arbeitsstabes Vietnam. February 1981. Báo Cáo Tổng kết 7 năm. UBND Nghệ Tĩnh. 26.05.1981.
- 192 Báo Cáo Tổng kết 7 năm. UBND Nghệ Tĩnh. 26.05.1981. Bericht des stellvertretenden Ministers für Bauwesen Werner Kohl über die vom 1. bis 9.12.1980 geführten Abschlußberatungen in der SR Vietnam zum Auslaufen des Abkommens über die Unterstützung der SR Vietnam bei der Projektierung und beim Aufbau der Stadt Vinh durch die DDR vom 22.10.1973. 10.12.1980. Bundesarchiv Berlin, BArch DH 1/29710, not paginated.
- 193 Báo Cáo Tổng kết 7 năm. UBND Nghệ Tĩnh. 26.05.1981.
- 194 Schwenkel, Christina (2012): Civilizing the City. Socialist Ruins and Urban Renewal in Central Vietnam. In: Positions: East Asia Cultures Critique 20, 2. 37–470. Schwenkel, Christina (2013): POST/SOCIALIST AFFECT. Ruination and Reconstruction of the Nation in Urban Vietnam. In: Cultural Anthropology 28, 2. 252–277. 264. Schwenkel (2014), 168–170. Vandenpoel, Erik (2011): Khu tap the Housing. Hanoi and Vinh. Thesis voorgedragen tot het behalen van de graad van Master in de ingenieurswetenschappen: architectuur. Katholieke Universiteit Leuven, Leuven. Letter of the People's Committee of Nghe Tinh Province to the People's Committee of Vinh City: Định chí xây dựng bể nước trong nhà cao tầng Quang Trung. 13.11.1985. Archive UBND Nghe An, 1985, Tập lưu công văn, June–December, not paginated.

apartments.¹⁹⁵ Furthermore, contrary to its intended function as a model housing complex Quang Trung remained the only of its kind in Vinh. The SRV shifted its housing policies in the 1980s, giving up the ideal of providing equal living conditions through state supplied housing to all its citizens (see below).

Today, the general spatial zoning of the draft development plan prepared with participation of experts from the GDR is upheld. The city can roughly be divided into an economic (along and around Quang Trung Street), an administrative (in the Trường Thi area) and an educational centre (around the university in Bến Thủy). Industries are clustered in the north-west and close to Bến Thủy harbour. However, the envisaged separation of residential and recreational areas from work places has not been achieved.¹⁹⁶ Additionally, the basic spatial division into three centres is as much reflective of the above described pre-colonial and colonial urban development as of the planning of a socialist urban environment

7. Reminders of the Past: Remains of the Socialist City in the Contemporary Urban Environment

The ambitions to create a socialist urban environment resulted from the political orientations of the 1950s to 1970s. However, these orientations have shifted in Vietnam from the 1980s on towards the promotion of a “market economy with socialist characteristics.”¹⁹⁷ In the official vision promoted today for Vinh’s development, the most prominent reminder of the Socialist City, the Quang Trung Housing Complex, is now rather re-

195 See for example Letter of the People's Committee of Nghe Tinh Province to the People's Committee of Vinh City: Trích yếu Giải quyết trường hợp đôi căn hộ 312 nhà C2 Quang Trung. 21.04.1986. Archive UBND Nghe An, 1986, Tập lưu công văn, 1.–6., not paginated. Letter of the People's Committee of Nghe Tinh Province to the Commander of the Provincial Military Headquarters: v/v xử lý vụ tranh chấp nhà ở tại căn hộ 222 C8 Khu Quang Trung. 28.08.1985. Archive UBND Nghe An, 1985, Tập lưu công văn, June–December, not paginated.

196 Mönnig (1989).

197 Masina, Pietro P. (2006): *Vietnam's Development Strategies*. London: Routledge. 39. Elliott, David W. P. (2012): *Changing worlds. Vietnam's Transition from the Cold War to Globalization*. New York. 204, 228.

garded as a problem inhibiting the creation of a “Modern and Civilised City.”¹⁹⁸

The goal of equal housing conditions provided by the state had been given up in Vinh by the late 1980s, planning did not refer to a Socialist City anymore and the socialist housing complex had lost its role as a physical planning unit as well as politically and socially desirable living environment.¹⁹⁹ As mentioned above, the eastern part of Quang Trung remained the only such complex in Vinh. Housing supplied by the state accounted for only 10 to 20 percent of the city’s housing stock in 1991, of which 75 percent were in one-storey buildings.²⁰⁰ From 1988 on, housing owned by state agencies and companies in Vinh was sold to inhabitants.²⁰¹

198 Another reminder of GDR assistance in Vinh, the Thälmann Club, is now renamed the Vietnamese – German Cultural House.

199 Report of the People’s Committee of Nghe Tinh Province to the Prime Minister, the Ministry of Construction, the State Planning Committee, the Ministry of Finance: Xin phe duyet quy hoach phat trien thanh pho Vinh (1992–2010). 09.01.1993. Archive UBND Nghe An, 1993, Tập lưu Thông báo, Báo cáo, Tờ trình, not paginated. Lương Bá Quảng (n.d.): Thành phố Vinh. Xu hướng tổ chức và mở rộng không gian qua các thời kì.

200 Tờ trình tóm tắt quy hoạch xây dựng thành phố Vinh. UBND Nghe An. 13.06.1991. Archive UBND Nghe An, 1991, Tập lưu Chi Thị, Thông báo, Sao Lục, 57.VP.UB, not paginated.

201 See for example Letter of the People’s Committee of Nghe An Province to the Deputy Chairman of the People’s Committee of Vinh City. 26.08.1993. Archive UBND Nghe An, 1993, Tập lưu Công văn, 8–12., not paginated. Letter of the People’s Committee of Nghe Tinh Province to the Electricity Company I: V/v hóa giá nhà ở. 16.10.1990. Archive UBND Nghe An, 1990, Tập lưu công văn 6.–12., not paginated. Letter of the People’s Committee of Nghe Tinh Province to the Factory for Construction Mechanics: V/v hóa giá nhà ở. 15.10.1990. Archive UBND Nghe An, 1990, Tập lưu công văn 6.–12., not paginated. Letter of the People’s Committee of Nghe Tinh Province to the Department of Finance: V/v hóa giá nhà ở. 15.09.1990. Archive UBND Nghe An, 1990, Tập lưu công văn 6.–12., not paginated. Letter of the People’s Committee of Nghe Tinh Province to the Scientific technological Committee, the Department of Finance, the People’s Committee of Vinh City, the Department of Construction, the Institute for General Planning, Control and Design, the People’s Committee of Hung Binh Ward: V/v hóa giá nhà ở: V/v hóa giá nhà ở. 12.07.1990. Archive UBND Nghe An, 1990, Tập lưu công văn 6.–12., not paginated. The earliest document referring to this process permits the sale of apartments in Quang Trung blocks: Letter of the People’s Committee of Nghe Tinh Province to the Departments of Construction and Finance, to the People’s Committee of Vinh City, and the Committee for General Construction: v/v hóa giá nhà ở tập thể. 30.04.1988. Archiv UBND Nghe An, 1988, Tập lưu công văn, 1.–7., not paginated.

The power of a “market economy with socialist characteristics” is represented in the “modern and civilized” urban environment by high-rise buildings combining retail, housing, and office space as well as hotel rooms, constructed by state-owned enterprises and private investors.²⁰² These buildings and New Urban Areas on the outskirts are depicted by advertisement and brochures as “new residential communities that show the middle classes enjoying prosperous, orderly, and moral lives. [...] images depict a disciplined, largely unpeopled world free from the disorder of haphazard construction, informal markets, and swarming motorbikes, with expensive new cars, law-abiding pedestrians, and well-cared-for homes.”²⁰³

In addition to leaving new housing development to the market, Vinh’s authorities have followed the policy to sell state owned housing to residents. Due to its complete destruction during the American War, Vinh’s housing stock consists of a considerable number of collective housing areas²⁰⁴ constructed in the 1970s. When residents bought housing units in these areas from the late 1980s on, they often acquired only the housing structures, not land use rights. This created legal uncertainties preventing many from carrying out costly repairs and investments. As a step towards the development of a civilised and modern city, demolishing these housing areas until 2015 became official policy in September 2007.²⁰⁵

Another form of housing that is regarded as being in the way of modern and civilised development is the Quang Trung Housing Complex. As described above, the Quang Trung Housing Complex did not become fully functional during the period of assistance by the GDR and long thereafter.

202 Thu Huyền (18.03.2011): Dấu ấn của thành phố năng động. Nghệ An Online. Online available at http://baonghean.vn/news_detail.asp?newsid=72528&CatID=3, last accessed 20.05.2011. Thanh Loan (23.11.2010): Tòa tháp đôi dầu khí. Điểm nhấn kiến trúc thành phố quê hương Bác. Trang thông tin điện tử thành phố Vinh. Online available at <http://www.vinhcity.gov.vn/?url=detail&id=30383&language=1>, last accessed 03.12.2010.

203 Schwenkel (2012), 460.

204 These were usually one-storey buildings of very poor standard intended only for much shorter use. Kaiser (2016), 159ff.

205 Quyết định V/v phê duyệt Chương trình phát triển nhà ở trên địa bàn tỉnh Nghệ An đến năm 2010, định hướng đến năm 2020. 110/2007/QĐ-UBND. Ủy Ban Nhân Dân Tỉnh Nghệ An. 21.09.2007. Nghị quyết về đề án giải quyết nhà ở tập thể cũ trên địa bàn thành phố Vinh. 189/2007/NQ-HĐND. Hội Đồng Nhân Dân tỉnh Nghệ An. 25.07.2007.

In 1984, open air wells had to be constructed as provisory water supply.²⁰⁶ Already by 1986, only five years after cooperation ended, the deteriorating quality of many buildings created unsafe living conditions for residents.²⁰⁷ However, due to a lack of funds resulting from economic difficulties and low rents, maintenance continued to be kept to a minimum over the next decades and repairs were carried out in piecemeal fashion.²⁰⁸ A central water supply and a wastewater system became finally operational due to official development assistance from the Federal German Republic in the 1990s.²⁰⁹ However, unsafe conditions persist, during Vinh's frequent storms and heavy rain many of Quang Trung's inhabitants have to be evacuated.²¹⁰

From 1988 on, several attempts were undertaken to sell a number of Quang Trung's apartments to inhabitants.²¹¹ From 1992 provincial authori-

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- 206 Letter of the People's Committee of Nghe Tinh Province to the Department of Construction, the People's Committee of Vinh City, the Department of Finance, and the Bank for Investment and Construction: v/v xây dựng giếng nước tại khu Q. Trung. 13.08.1984. Archive UBND Nghe An, 1984, Tập lưu công văn, July to December, not paginated.
- 207 Thông báo của UBND Nghệ Tĩnh về cuộc họp bàn về công tác sửa chữa khu nhà cao tầng Quang trung Thành phố Vinh. 22.03.1986. Archive UBND Nghe An, 1986, Tập lưu Thông báo, Báo cáo, Trình tờ, not paginated.
- 208 Letter of the People's Committee of Nghe An Province to the Ministry of Construction, the Ministry of Planning and Investment: V/v xin lập dự án ĐT sửa chữa thi điểm chống sụp đổ nhà Quang Trung. 16.10.1997. Archiv UBND Nghe An, 1997, Tập lưu Công văn 10–11, not paginated. Letter of the People's Committee of Nghe An Province to the Department of Construction, the Department of Planning and Investment, the Department for Finance and Pricing, the People's Committee of Vinh City, the People's Committee of Quang Tung Ward: V/v tổ chức kiểm tra về quản lý, sử dụng khu nhà cao tầng Quang Trung-Vinh. 29.06.1996. Archiv UBND Nghe An, 1996, Tập lưu Công văn 6–8, not paginated.
- 209 Liên hiệp các tổ chức hữu nghị et al. (2011): 120–125.
- 210 Thân Cương (02.08.2011): “Sống trong sợ hãi” tại chung cư xuống cấp. In: *Nguoiduatin.vn*. Online available at <http://www.nguoiduatin.vn/song-trong-so-hai-tai-chung-cu-xuong-cap-a9544.html>, last accessed 06.08.2013. Lê Thanh (24.08.2012): Đầy nhanh tiến độ xóa nhà ở tập thể cũ. In: *Nghệ An Online*. Online available at http://baonghean.vn/news_detail.asp?newsid=87750&CatID=109, last accessed 07.08.2013.
- 211 Letter of the People's Committee of Nghe Tinh Province to the Departments of Construction and Finance, to the People's Committee of Vinh City, and the Committee for General Construction: v/v hóa giá nhà ở tập thể. 30.04.1988. Kaiser (2016), 138ff.

ties unsuccessfully tried to sell all of Quang Trung's apartments. Finally, in 2001 the MoC proposed a plan to rehabilitate the housing complex according to market mechanisms as a national example for the conversion of housing estates. Inhabitants would be given first-buyer priority, but market value-prices and the absence of special consideration other than law-required compensation would put the new apartments out of reach of many.²¹² The project would involve demolition of a number of Quang Trung's buildings and the relocation of inhabitants to resettlement apartments in the northern part of the city.²¹³ In 2002, the provincial People's Committee agreed to a proposition by the TECCO construction company from Hồ Chí Minh City to plan the redevelopment of the first block to be demolished (C1) as a complex including housing, office, and retail space.²¹⁴ Schwenkel calls the construction of this project, including two high-rise towers, "the most striking visual changes to the cityscape" until then.²¹⁵

However, as with previous attempts at repair or rehabilitation of the housing complex, the 2001 MoC plan was not implemented. Instead, it was decided that the whole complex would be redeveloped according to guidelines set out in 34/2007/NQ-CP, including the demolition of all buildings.²¹⁶ This resolution prescribes the improvement and reconstruction of housing complexes as integrated projects including housing as well as technical and social infrastructure. Again, the goal is to contribute to

212 Shannon, Kelly/Loeckx, André (2004): *Rising from the Ashes*. Vinh. In: *Localising Agenda 21: Action Planning for Sustainable Urban Development and United Nations Human Settlements Programme*. (ed.): Urban Trialogues. Visions, Projects, Co-productions. Nairobi. 122–155. 145.

213 Notification of the People's Committee of Nghe An Province: Ý kiến kết luận của Chủ tịch UBND tỉnh tại buổi làm việc với Sở Xây dựng. 09.11.2001. Archive UBND Nghe An, 2001, Tập lưu Thông báo, báo cáo 8–12, not paginated. Letter of the People's Committee of Nghe An Province to the People's Committee of Vinh City, and the Department of Construction: Về việc giải quyết tình trạng xuống cấp Khu chung cư Quang Trung. 22.10.2001. Archiv UBND Nghe An, 2001, Tập lưu Công văn 9–10, not paginated.

214 Letter of the People's Committee of Nghe An Province to the Tecco Construction Company: V/v đầu tư của công ty Cổ phần xây dựng và ứng dụng công nghệ mới (TECCO). 22.07.2002. Archive UBND Nghe An, 2002, Tập lưu Công văn 7–8, not paginated.

215 Schwenkel (2012), 457.

216 Nghị quyết về đề án giải quyết nhà ở tập thể cũ trên địa bàn thành phố Vinh. 189/2007/NQ-HĐND. Hội Đồng Nhân Dân tỉnh Nghệ An. 25.07.2007.

the development of a civilised and modern city.²¹⁷ Meanwhile, the three zones of Quang Trung have been assigned to three developers for this project. However, in addition to the buildings constructed by TECCO that replaced the C1 block so far only one new apartment block has been constructed on the former site of a sports field in the north-western corner of the housing complex.²¹⁸ Thus, the Quang Trung Housing Complex remains as a reminder destruction and reconstruction of Vinh's built environment during the American War.

8. Conclusion

The study of the long-term impacts of bombing on the urban environment in Vinh cannot be reduced to an investigation of only statistical data such as population numbers or economic growth. Picking up on the ways of investigation laid out by the above cited works of Diefendorf as well as Glaeser and Shapiro, this study on the destruction and reconstruction of Vinh has shown that much of the long-term impact of the war results can only be understood when taking into account developments and decisions that were made even before the air-war over North Vietnam began. The destruction caused by this air war, however, created the conditions under which large scale implementation of decisions to rebuild the urban environment according to the ideal of the Socialist City could be attempted. The implementation of plans for reconstruction was also heavily impacted by the ongoing war, even though the urban environment of Vinh itself did not become the target of destruction anymore. The ongoing war diverted resources and the overall destruction caused by it did not allow reconstruction policies to focus on Vinh even after the war ended. While this case study has focused on the impact of the war on the built urban environment of one particular city, it has shown that a look at wider contexts, such as the national political and economic situation and international relations, is necessary for a detailed understanding of the long-term impacts of destruction caused by the bomb war in Vinh.

This multi-level complexity is also reflected in the importance of global- and national-level political developments that led to a re-evaluation of

217 Nghị Quyết Về một số giải pháp để thực hiện việc cải tạo, xây dựng lại các chung cư cũ bị hư hỏng, xuống cấp. 34/2007/NQ-CP. Chính phủ. 03.07.2007.

218 Kaiser (2016), 140.

the strategy to create a socialist urban environment. As the move from a socialist development path to a *market economy with socialist orientation* was reflected in the embrace of the ideal of a *modern and civilized* urban environment, the Quang Trung Housing Complex was turned from the optimistic nucleus of an envisioned socialist urban environment into an impediment to the newly embraced vision of a modern and civilized city. Thereby, one of the core elements of the project to create a socialist urban environment has become an obstacle to urban development in light of a changing political, economic, and ideological context.

While general aspects of urban development in the DRV during the war are reflected in Vinh's war-and post-war experience, such as evacuation of the population, a quick return to pre-war population size and subsequent urban growth, other aspects are very particular to the city. For example, bombing and destruction were much heavier than in other cities because of Vinh's strategic role as a hub for war-time transportation routes that reflects its location at the intersection of historic transport routes. During the separation of the country into the DRV and the RoV, Vinh was the most important city in the southern DRV, an importance that was reflected in the decision to assign its reconstruction to the GDR. When the war ended, this importance diminished and so did the attention and resources Vinh's reconstruction received from central authorities of the SRV. Another particularity is the extent of support provided by the GDR to Vinh's reconstruction that was in no terms representative of support provided by socialist countries to the reconstruction of the DRV's cities in general. Furthermore, as was also indicated above and is well presented by Thrift and Forbes, the experiences of cities in the North and the South of Vietnam differed markedly both during and after the war. To account for a full picture of the impact of war and urban planning on the built environment of Vietnam's city, a comparative research agenda that is able to incorporate both general trends as well as the particularities of individual city's histories is necessary.

The introduction raised the question of how to isolate the impact of bomb war on the urban environment. I have addressed this issue by focusing on projects and developments that have their origins in decisions and actions taken in direct response to the destruction caused by aerial bombing of Vinh in the 1960s and 70s, and which changed the urban environment of Vinh in the immediate aftermath of the war. However, as the title of this paper indicates, and as was mentioned in the introduction, the history of Vinh in the second half of the 20th century presented here was

marked by intertwined processes of development, destruction, and reconstruction, and to strictly isolate the impact of one single aspect would arbitrarily reduce the complexity of the interplay of these processes.

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III.
Since 1990

We Will not Leave the Forest. We Will not Leave the Land. Internally Displaced Persons from Chhattisgarh to Khammam District: Inhuman Living Conditions in a Degraded Environment

Brigitte Sebastia

The deprivation of tribes of lands and forest resources, started in colonial period and continuing today, has opened the way to the Maoist activism which uses repressive methods with extremely controversial impacts on tribal populations. On the one hand, Maoists help them to defend or to regain their lands, and to compensate the government failures in terms of development and social welfare.¹ On the other hand, they abuse the tribal people, forcing them to join their battle and support their activities. The extensive activity of the Maoists, called Naxalites or Naxals in the North-Eastern and Central part of India, has led this region to be dubbed the *Red corridor*. It includes the state of Chhattisgarh, the southern part of which, extensively inhabited by tribes, has experienced, in June 2005, the emergence of a counter-insurgency movement, called Salwa Judum, which has benefitted from the support of the Chhattisgarh and central governments. This anti-Naxalite movement has not only been unable to protect the tribal populations, but it has seriously endangered their life. Caught between the

1 Sundar quotes an extract of the Maoist's book *New People's Power in Dandakaranya* (Kolkata: Biplabi Yug, 2000) which claims that in South Bastar and Gadchiroli, "they have established 135 people's clinics, started six primary schools, 10 night schools, built 25 huts for government teachers to persuade them to come, set up 10 village libraries, etc." Sundar, Nandini (2006): Bastar, Maoism and Salwa Judum. In: *Economic and Political Weekly* 41, 29. 3187–3192. 3189. The report *Development Challenges in Extremist Affected Areas* by an expert group set up by the Planning Commission analysed by Sumanta Banerjee mentions that the Naxalite movement works as "surrogate state". It has been able to help tribes to regain their old rights on lands, to increase the wages of tribal people in agriculture and to fight the practice of forced labour obliging the low caste and tribal people "to provide free labour to upper castes" which it was "abolished by the government under Articles 14 to 17 of the Constitution." Banerjee, Sumanta (2008): On the Naxalite Movement: A Report with a Difference. *Economic and Political Weekly*, 43, 21. 10–12. 11.

cross-fires of Naxalites and anti-Naxalites, tribal people have been forced to flee to another state, or to join the *relief camps* founded by Salwa Judum. It is estimated by various humanitarian organizations that tens thousands of them have been displaced since 2005.² Many of those who lived in southern part of Chhattisgarh have fled to Andhra Pradesh (now Telangana),³ mainly to Khammam district, the neighbouring region of South Chhattisgarh.

These migrants are called *Internally Displaced Persons* (IDPs), a terminology defined by the United Nations guiding principles as: “Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border.” The United Nation guidelines of 2008 emphasise that: “Becoming displaced within one’s own country of origin or country of habitual residence does not confer special legal status in the same sense as does, say, becoming a

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- 2 The report of Ramachandra Guha points out that “apart from the official figure of 45,958 villagers displaced and living in camps by the main roads, media reports also mentioned that some 40,000 people from the southern part of the district had fled to Andhra Pradesh and other neighbouring areas.” Guha, Ramachandra (et al.) (2006a): War in the Heart of India: An Enquiry into the Ground Situation in Dandewara District, Chhattisgarh. http://www.rightsandresources.org/documents/files/doc_387.pdf. 8. Since this report published 20 July 2006, displacement and migration to Andhra Pradesh have continued. The website of Internal Displacement Monitoring Centre based on various sources informs that: “As of 2013, it was estimated that 50,000 IDPs remained living in 23 relief camps in Bastar (Aljazeera, 2013). As of 2014, there were 20,000 IDPs living in Andhra Pradesh and Telangana (which was carved out of Andhra Pradesh in 2014) states (Action Aid-report on file with IDMC, April 2014).” <http://www.internal-displacement.org/south-and-south-east-asia/india/figures-analysis>.
 - 3 The boundary change of Andhra Pradesh which led to the creation of the state of Telangana was approved by the union cabinet 3 October 2013. This present study having been conducted in June 2013, I will use Andhra Pradesh rather than Telangana to designate this state which Khammam district belongs to. Regarding the creation of Telangana, which terminated a long period of political debates and violent protests, see Pingle, Gautam (2014): *The Fall and Rise of Telangana*. New Delhi. This author traces the history of Telangana region, and the relentless agitations demanding a separate Telangana state that emerged from annexation of this region to Andhra Pradesh at the Indian Independence.

refugee.”⁴ The living condition of the IDPs is thus dependent on the good will of the state government where they are settled. In India, while the displaced people who are victim of development projects or natural disasters are eligible for benefitting from resettlement and rehabilitation measures such as housing, lands, ration and identity cards, social welfare, etc., at least in principle,⁵ the condition of IDPs who fled armed conflicts is worse. Although Indian citizens, they are ignored in the state where they seek refuge and deprived from any help. Considered *illegal* in Andhra Pradesh, many Chhattisgarhi IDPs have been obliged to build a new live inside the forest, in areas situated sometimes more than eight km from a road.

The present chapter is based on the ethnography of settlements founded by Internally Displaced Persons’ (IDPs) inside the forest of Khamman district, Andhra Pradesh. The IDPs belong to Dorla and Maria/Muria tribes, and come from the southern part of Bastar comprising the Konta and Sukma blocks, a region severely affected by an armed conflict opposing Maoists and anti-Maoist movement.

The study, conducted in June 2013, was commissioned by the French NGO Médecins du Monde (MdM).⁶ With the objective to be financially supported by ECHO (European Commission's Humanitarian Aid and Civil Protection) in order to implement a program of mobile clinics in IDP set-

4 Kälín, Walter (2008): Guiding Principles on Internal Displacement. Annotations. The American Society of International Law. Studies in Transnational Legal Policy 38. Washington.

5 While the government approved the National Rehabilitation and Resettlement Policy 2007 (see <http://www.dolr.nic.in/nrrp2007.pdf>), many articles denounce its poor implementation. Sharma, R.N. (2010): Changing Facets of Involuntary Displacement and Resettlement in India. In: Social Change 40, 4. 503–524. Sharma, R.N./Singh, Shashi (2009): Displacement in Singrauli Region: Entitlements and Rehabilitation. In: Economic & Political Weekly 44, 51. 62–69.

6 MdM was created in 1980 following the ideological dissensions within the French NGO Médecins Sans Frontières (MSF), notably about the involvement of media during its medical interventions in Vietnam for denouncing human right violations. MSF and MdM intervene in emergency situations, such as armed conflicts and natural disasters, but MdM privileges long term interventions in order to constrain governments to strengthen their health policy. MdM’s objectives are clearly specified in the proposal they submitted to ECHO for funding, to which I had access: “MdM (...) want to build a progressive intervention scheme in the three coming years. The roadmap aims to reinforce the Indian national NRHM [Nation Rural Health Mission] plan – instead of developing a parallel health system –, and to simultaneously advocate for IDP rights.”

tlements, Mdm had inscribed in its project an anthropological for which I was appointed. A preliminary survey carried out by Mdm had revealed that the IDPs consulted rarely the government medical services. My mission was to document the health conditions of the IDPs and their behaviour regarding care and hygiene including their perception of health and diseases and interpretation of symptoms, and to identify if the IDP's scarce recourse to medical services was due to them, the tribal people being often regarded as ignorant and superstitious,⁷ or to the discriminative attitude of the medical staff towards them.

In this article, I wish to draw a picture of the squalid living conditions of the IDPs in their new environment which endangers not only their live, but also weakens the forest environment of the Bhadrachalam region, already very damaged by coal mines and encroachments by communities living nearby the forest. The Dorla and Maria/Muria tribes are familiar with, and attached to, the forest, as the title drawn from an IDP quotation emphasises. However, in Andhra Pradesh, they are constrained to take refuge inside the forest and are obliged to use strategies to keep going there. These strategies on the one hand, mitigate the reason of migration as strictly intrinsic to the violent climax in Chhattisgarh, and on the other hand, accentuate the forest's degradation. The history of settlements' foundation inside the forest and the health and living conditions in these sites will form the core of this chapter which aims at analysing the impact of armed conflict on humans and their environment. In preamble, I will provide perspectives on the legislation on the forest and its dwellers, and insights into the armed conflict opposing Naxalites to anti-Naxalites, as these two subjects, tightly linked, form the background of the IDP settlements in Andhra Pradesh.

7 In India, like in numerous countries, tribal people are perceived by the non-tribal as the *others*, those who are uneducated and ignorant, and consult traditional healers (seen as quacks) rather than to turn to biomedicine. In the case of IDPs, the recourse to traditional healers, who use both plant-based medication and magical rituals, is the most common. It is justified not only by the belief in bad evil as agent of diseases, but also by several factors such as healer' accessibility inside the settlements; his ability to understand the patient's language (sharing of idioms and representation of the disease); gratuity of his treatment; and relation of power in the cases when, in absence of an expert, the settlement's head occupies the function of the healer, the patient's recourse to the medical centre might be interpreted by the head as a lack of confidence and recognition.

1. *A Long Story of Alienation of Lands and Violation of Rights of Forest Dwellers*

The displacement of tribes in India has a long story, but the control over wide forest tracts and their resources by the British Empire is held accountable for their massive displacement as well as for significant transformations of the ecosystems. As pointed out by Gupta/Gadgil: “It has been suggested that British rule marks an important watershed in the ecological history of India.”⁸

Legislation on the forest was enacted late, not before the second mid-nineteenth century. But when it came in force, it was detrimental for both forest and forest dwellers. In order to ensure the control over high valued forest resources, notably timbers as commodities essential for implementing developmental projects of the Empire (railway line, wagons and sleepers, ships, etc.) and for their commercial value at exportation, the British created the first Forest Act in 1868. A decade later, after the establishment of the Forest Department, they enacted the Indian Forest Act, 1878. This act, reinforcing the first one, divided the forest areas into reserved, protected, and village forests. Forest dwellers were forbidden in reserved forests; those living in protected forests were restricted to collect only forest minor produce and were banned from practising pasture and hunt in the forest and selling forest produce;⁹ and those living in village forests were constrained to pay dues on forest produce including crops cultivated inside the forest, and on grazing.¹⁰ Regarding Bastar region, from where the IDPs come from, Sundar mentions that the reserved forests constituted two-third of the total forest area of the state, excluding the area under the

8 Guha, Ramachandra/Gadgil, Madhav (1989): State Forestry and Social Conflict in British India. In: *The Past and Present Society* 123. 141–177. 142.

9 Guha/Gadgil (1989). Prasad, Archana (2003): *Against Ecological Romanticism. Verrier Elwin and the Making of an Anti-Modern Tribal Identity*. New Delhi.

10 Sundar defines the three categories as: “reserved forest which are generally completely closed off to the local public, protected forests in which people had *privileges* liable to be changed at state discretion, and in some provinces, village or *nistari* forests from which people could draw their basic needs, usually on the payment of commutation dues.” Sundar, Nandini (1997): *Subalterns and Sovereigns. An Anthropological History of Bastar 1854–1996*. Delhi. 106.

zamindari authority.¹¹ The classification of forest areas was based on their resource in commercially valuable tree species such as the *sal* (*Shorea robusta*) or the teak, and on the intensity of shifting cultivation. Shifting cultivation was deemed by the British as destructive and in conflict with their need of wood and timbers; the classification of areas under intense shifting cultivation as protected forests, allowed them to eliminate such a competition.¹² Moreover control over, and classification of, forest areas by the colonial power, tribal people had to share their territory with outsiders, whose the venue was facilitated by the development of transport, attracted by employs in projects or by availability of lands. They bought lands from tribal people against a meagre compensation in consumable products, or fraudulently appropriated lands leased from tribal people.¹³ Such abusive transactions continued after independence,¹⁴ until the recent Forest Rights Act, 2006, banned the transfer of lands from tribes to non-tribal people.

Dispossessed from lands, or jeopardised by the restrictions and degradation of the ecosystem resulting from deforestation and plantation of highly valued trees, or by taxes, the tribes were forced to reconstruct their life in other places, sometimes conflicting with other forest dwellers. Such a situation entailed revolts of forest dwellers against the British regime, outsiders and British-allied local rulers, forcing the British to compose with them. Bastar region knew such rebellions, notably in 1910, when the tribes and lower castes reacted violently against the policy of forest reservation, restriction on shifting cultivation on hilly slopes and taxes on grazing and land, instituted by the colonial power allied to the rulers.

11 Introduced in 1793 by Cornwallis in eastern parts of British India, the *zamindari* system accorded full ownership on lands to the landowners, and rights to rent the lands to peasants and to fix the rent amount, the 10/11 being handed down to the British Empire. Meena, Hareet Kumar (2015): Land Tenure Systems in the Late 18th and 19th Century in Colonial India. In: American International Journal of Research in Humanities, Arts and Social Sciences 9, 1. 66–71.

12 The justifications of the British for condemning shifting cultivation were that this technique deprived them of timbers, and that, after cultivation, the growth of *sal* trees was hindered by the transformation of the undergrowth, and the presence of ash and of grass which grown back. Prasad (2003).

13 Rupavath, Ramdas (2015): The Persistence of Land Alienation. The Experience of Tribal People of Andhra Pradesh. In: Journal of Asian and African Studies 50, 3. 259–275.

14 Sundar (2006).

The second important Indian Forest Act 1927, largely based on that of 1878, consolidated the control on areas covered by forest, or having significant wildlife, and regulated movement of forest produce, notably of the timbers, on which duties were levied. This act, amended in 2010 to take into account the seventy-year changes in terms of money value, is now called Indian Forest (Amendment) Act, 2012. As this act does not address the forest dwellers, a new law, based on the periodical guidelines defined by the Ministry of Environment and Forests since 1990, has been enacted in 2006 to fill the void. Called the Forest Rights Act, 2006 (full name: Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006), it aims to recognise the rights to the forest of tribal people and other traditional forest dwellers (OTFD) which are essential to ensure their livelihood, as well as to give back the rights of these communities which were despoiled during the classification of forest areas by the colonial and post-colonial policies. Kundan Kumar et al. argue that this law “represents a political, demand-based effort to reform forest governance through recognition of rights of forest-dependent people.”¹⁵ But despite its relevance to improve the conditions of forest dwellers, the law is denounced as been badly implemented,¹⁶ and grossly violated in all the regions possessing significant forest communities. According to the sites, the livelihood of forest dwellers is jeopardised by the priority given to the projects, governmental as well as private, which generate amount of money.¹⁷ It is estimated that the development-related projects (dams, roads, special economic zones, industrial sites, mines, electricity plants, etc.) have provoked the displacement of fifty millions of people comprising

15 Kumar, Kundan/Singh, Neera M./Kerr, John M. (2015): Decentralisation and Democratic Forest Reforms in India: Moving to a Rights-Based Approach. In: Forest Policy and Economics 51. 1–8. 2.

16 Social Change 41, 1 (2011). Implementing Forest Rights Act (FRA), 2006. A Seminar Report and Recommendations. 121–154. Saxena, K.B. (2011): Militant Left Radicalism, State and Civil Society. The Centrality of Tribal Land Rights. Recommendations of a National Seminar. In: Social Change 41, 3. 473–4832.

17 Regarding Bastar, Ilina Sen mentions the conflict in 2001 which opposed the *gram sabha* of the village Nagarnar to the National Mineral Development Corporation, following the falsification of its registers by district authorities to acquire lands for starting the project. Sen, Ilina (2011): Distorted Development and Possibilities of Alternatives in Chhattisgarh. In: Berthet, S./Kumar, G. (eds.): New States for a New India. Federalism and Decentralization in the States of Jharkhand and Chhattisgarh. Delhi. 147–166. 156.

more than forty percent of tribal people.¹⁸ The lives of tribes may be also jeopardised by armed conflicts. Quantifying the volume of IDPs resulting from armed and communal conflicts is difficult; the Internal Displacement Monitoring Centre (IDMC) evaluates that, at the end of 2013, there were at least 526,000 persons. According to its website, “in central India, more than 148,000 Adivasi people remained displaced as a result of recurring conflict over land and mineral resources. The fighting pitted government forces and allied militias against Maoist insurgents claiming to fight on behalf of the Adivasis. Clashes in May [2013] displaced another 10,000 people.”¹⁹ This refers to the southern region of Chhattisgarh.

2. *Overview of the Cause of Displacement: the Armed Conflict in Chhattisgarh*

The ex-Dandewada or southern Bastar district of the Chhattisgarh state is the seat of Maoist activities the most violent in India. This region is a part of the Bastar district which formed with the Dantewada district, the princely state of Bastar founded in the early 14th century. After the independence in 1947, the princely state of Bastar merged with that of Kanker to form Bastar District of Madhya Pradesh state, which was then divided in three districts in 1999, Kanker, Bastar and Dandewada. These districts, situated in the eastern part of Madhya Pradesh, compose the southern part of Chhattisgarh, state created in 2000 from the division with the former.²⁰ The Dandewada district was redrawn in 2007 with the creation of the Bi-

18 See, the Reference Note of the Lok Sabha Secretary (December 2013) “Displacement and Rehabilitation of People due to Developmental Projects” <http://164.100.47.134/intranet/DisplacementandRehabilitation.pdf>; the report of worldpress.com: <https://socialissuesindia.files.wordpress.com/2012/09/tribal-displacement-in-india.pdf> (retrieved on 09.11.2015) as well as Meher, Rajkishor (2009): Globalization, Displacement and the Livelihood Issues of Tribal and Agriculture Dependent Poor People. The Case of Mineral-based Industries in India. In: Journal of Developing Societies 25, 4. 457-480. Negi, Nalin Singh/Ganguly, Sujata (2011): Development Projects vs. Internally Displaced Populations in India. A Literature Based Appraisal. In: COMCAD Arbeitspapiere, Working Papers No. 103. Bielefeld. Sharma (2011).

19 <http://www.internal-displacement.org/south-and-south-east-asia/india/summary>.

20 The creation of Chhattisgarh was enacted at the same period than that of the states of Jharkhand and Uttaranchal. It results from the request of “big landowners and traders turned industrialists” (Sen 2011, 151) and from the great potential of

japur district, and again in 2012, with the formation of Sukma district. This district was then subdivided into three blocks or *tenshil-s*, among them those of Sukma and Konta, located in the South, which form the area where the most IDPs settled in Khammam district come from. These blocks, widely covered by forest and hills, and seldom urbanised, are inhabited by tribes, mostly the Dorla and the Muria/Maria communities. According to the statistics of the Census of India 2001, quoted by Berthet,²¹ Bastar is the region with the highest percentage of tribal people: 66.31 percent with 71.60 percent living in non-urban areas.

Belonging to the Gond group, Dorla and the Muria/Maria tribes have been well documented during the colonial period, especially by Grigson (1938), and Elwin (1937, 1947), and after Independence, by von Fürer-Haimendorf (1948, 1979), Mehta (1984) and Sarkar/Dasgupta (1996).²² On the website of the District Administration²³ of Sukma district, they are presented as “(...) innocent Tribes [who] are totally happy and content with whatever little facilities they are provided,” the website, however, adds: “(...) in the greater interest of the area and the country it is necessary to bring the tribes in the main stream of development where from

Chhattisgarh in natural resources rather than from identity demands or a willingness to improve the situation of tribes, See also Lefèbvre, Bertrand (2011): Mapping the Scheduled Tribes. Questioning the Creation of New States in India. In: Berthet, S./Kumar, G. (eds.): New States for a New India. Federalism and Decentralization in the States of Jharkhand and Chhattisgarh. Delhi. 191-208. Due to this, on contrast to the formation of the previous states, it was supported by the national political parties and the ruling government of this epoch, the National Democratic Alliance. Chhattisgarh has been considered as a tribal state, but Berthet argues that the tribal represent 31.8 percent of the population, confined especially in the North, South and in Central-West. Berthet, Samuel (2011): Chhattisgarh. Redefining the Role of the State? In: Berthet, S./Kumar, G. (eds.): New States for a New India. Federalism and Decentralization in the States of Jharkhand and Chhattisgarh. Delhi. 87-115.

21 Berthet (2011), 102.

22 Grigson, W.V. (1938): The Maria Gonds of Bastar. London. Elwin, Verrier (1936): Leaves from the Jungle: Life in a Gond Village. London. Elwin, Verrier (1947): The Muria and their Ghotul. London. Fürer-Haimendorf, Christoph von (1948): The Raj Gonds of Adilabad: A Peasant Culture of the Deccan - Myth and Ritual. London. Fürer-Haimendorf, Christoph von (1979): The Gonds of Andhra Pradesh Tradition and Change in an Indian Tribe. New Delhi. Mehta, Behram H. (1984): Gonds of the Central Indian Highlands. Two volumes. New Delhi. Satkar, Amitabha/Samira, Dasgupta (1996): Spectrum of Tribal Bastar. Delhi.

23 See: <http://www.sukma.in/profile.php> (retrieved on 13.09.2015).

they will start thinking of new necessities and strive to achieve them which will set a greater revolution of changes for the betterment of this area.” This message takes over the rhetorical figure used by the colonial government of Madras in 1874 quoted by Kumar: “[a] happy and contented population is better than flourishing forests.”²⁴ Like in the colonial time, the post-independent governments of India have to juggle between the management of tribal in a manner efficiently satisfactory to avoid rebellions, today their affiliation to the Maoists, and the exploitation of forest resources in tribal areas, today those of the underground. The website is silent on the hard reality of tribal people. Not only they have not benefited from the development in terms of employment and implementation of social welfare schemes,²⁵ but also are trapped in cross-fire between the Naxalites and anti-Naxalites militia: the former charge the tribal with betrayal of trust, and the later accuse them to help Maoists. Using the same means, both Naxalites and anti-Naxalites are composed of tribal people, quite often forced to join either the battle of Naxalites against the development’s evils, the state and private companies, or the battle of anti-Naxalites against the development’s enemies (anti-Naxalites/Salwa Judum).²⁶

24 Kumar, V.M. Ravi (2012): Community Forest Management in Colonial and Post-colonial South India. Policy and Practice. In: South Asia Research 32, 3. 257–277. 257.

25 Asian Centre for Human Rights (2006): The Adivasis of Chhattisgarh. Victims of the Naxalite Movement and Salwa Judum. Delhi.

26 The literature denouncing the exactions caused by Naxalites and Salwa Judum is abundant, especially that reports violation of human rights by Salwa Judum and police force. For articles reporting violence by Naxalite Prasad, Archana (2010): The Political Economy of Maoist Violence in Chhattisgarh. In: Social Scientist 38, 3-4. 3-24. For those reporting violence by Salwa Judum and Reserved Police: Balagopal, K. (2006): Physiognomy of the violence. In: Economic and Political Weekly. 10-14. Guha, Ramachandra (et al.) (2006b): Salwa Judum: War in the Heart of India: Excerpts from the Report by the Independent Citizens Initiative. In: Social Scientist 34, 7-8. 47-61. Kumar, Himanshu (2009): Who is the Problem, the CPI(Maoist) or the Indian State? In: Economic and Political Weekly 44, 47. 8-12. Miklian, Jason (2009): The Purification Hunt: the Salwa Judum Counterinsurgency in Chhattisgarh, India. In: Dialectical Anthropology 33. 441–459. For those describing escalating exactions by both Naxalites and anti-Naxalites caused since the formation of Salwa Judum: Bahree, Megha (2010): The Forever War: Inside India's Maoist Conflict. In: World Policy Journal 27, 2. 83–89. Gupta (2006a).http://www.rightsandresources.org/documents/files/doc_387.pdf. Human Right Watch (ed.) (2012): Between Two Sets of Guns. Attacks on Civil Society. Activists in In-

Naxalite or Naxal is a term which originates from the Naxalbari movement which emerged in May 1967 in the Naxalbari area of northern West Bengal and expanded in districts with a significant tribal and lower castes population.²⁷ The movement resulted from the confrontation of the police with armed villagers, mostly tribal, which caused the death of a police inspector, and in reprisal, the killing of six women, one man and two children. The revolt of peasants was spurred by their determination to eradicate the *jotedari*, a feudal agrarian system imposing that the labourers pay heavy taxes on the crops to the landowner. The attack of young tribal who reclaimed his rights on a land served as a pretext to the dissidents of the CPI(M) to fight the *jotedari* system. The dissidents of the CPI(M), led by Charu Mazundar and Kanu Sanyal, promoted the power of the weapons as a means more efficient to defend the poor (tribe and lowest caste), than the parliamentary representation. Allying to revolutionary groups, the dissidents formed the All-India Coordination Committee of Communist Revolutionaries in 1967, and then, the Communist Party of India (Marxist-Leninist ML) in 1969. Reconsolidated after a period of decline due to loss of leadership, this party formed, in 2005, the CPI (Maoist) or Naxalism in association with the Maoist Communist Centre India. The term Naxalism is used more specifically in tribal areas, reinforcing thus the link between tribes and alienation of lands. Compare to the Naxalbari movement which “was an organised peasant attack against peculiar feudal land relations,” the Naxalites in Chhattisgarh “draw on displacement of the local people due to zealous support of the state for quick development through *forced* industrialization.”²⁸

According to Berthet²⁹, from the creation of the state of Chhattisgarh, its diverse governments have relied on the private investment for developing infrastructures (transports, education) and have encouraged the venue of private companies, both national and international, to develop industrial

dia’s Maoist Conflict. USA: Human Right Watch. Navlakha, Gautam (2006): Maoists in India. In: Economic and Political Weekly 41, 22. 2186–2189.

27 This area, located at the border of Nepal and Bangladesh (ex-East Pakistan), is dominated by tribal population working in tea plantation.

28 Chakrabarty, Bidyut (2014): Maoism, a Recalcitrant Citizenry and Counterinsurgency Measures in India. In: Journal of Asian Security and International Affairs, 1, 3. 289–317. 294.

29 Berthet (2011).

and mining plants necessary to increase the state economy.³⁰ Sen mentions that the ecological zone of Bastar, rich in forest produces (*sal* trees, *amla* or India gooseberry, tamarind pods, *chironji* nuts, *mahua* seeds and flowers, etc.) is also rich in ores such as mica, manganese, iron and bauxite. The government policy to attract investors by “selling off the natural resources of the state,”³¹ and its failure to provide basic public amenities, notably in tribal areas, has offered a fecund battlefield to the Maoists, present in the Telangana region (Andhra Pradesh) who entered Chhattisgarh in 1980s.³² The penetration of Naxalites into Chhattisgarh and intensification of their activities are interpreted as a response of the government failure to implement the 5th and the 9th Schedules of the Indian constitution. Despite of the 5th Schedule, little tribal advisory councils of scheduled tribes living in the reserved forests or in scheduled areas of the states have been formed so that the state governments continue to administer the reserved forests and are prone to lease some areas to private mining and industrial companies, entailing the eviction of tribes; the redistribution of lands from upper castes to landless peasantry stipulated in the 9th Schedule is poorly observed.

In reprisal to the intensification of Naxalites’ activities, a counter-insurgency movement called Salwa Judum, signifying in Koya *Peace Marc’* or *Purification hunt*, was formed in June 2005 under the leadership of Mahendra Karma, a tribal leader, Member of the Indian National Congress, Minister of Industry and Commerce of Chhattisgarh from 2000 to 2004. This movement, supported by the state and central governments which deployed paramilitary troops (National Security Guard commandos, Nagaland Armed Police, Central Industrial Security Forces and Central Reserve Police Forces), caused a civil war situation endangering the tribes. Accused by either Naxalites or Salwa Judum, tribal people have had been repeatedly the target of attacks destroying the infrastructures symbolising the development such as school, roads, electricity, etc. (Naxalite side), or creating a climate of fear by using arson, abductions, rapes, murders, etc. (Salwa Judum side). The terror atmosphere forced the tribes to flee their

30 Navlakha, Gautam/Gupta, Asish (2009): The Real Divide in Bastar. In: Economic and Political Weekly 44, 33. 20–21. Sen (2011).

31 Sen (2001), 153.

32 Pingle (2014) and Asian Centre for Human Rights (2006). In her conclusion, Sundar (1997) relates an attack of a special Bastar battalion by Naxalites which occurred in 1989.

village for seeking protection in another state. In addition to this migration, numerous villages have been abandoned by their dwellers to join what it is called *relief camps* or *Salwa Judum camps*, either voluntarily for protection against Naxalites or for advantages promised by Salwa Judum, or forcedly displaced by the militia in order to weaken the relationships between tribal and Naxalites.³³ These camps, under the control of the CRPF (Central Reserve Police Force), Indian reserve battalions, and SPOs (Special Police Officers), served as base for forcedly enrolling tribal, notably youths and women. The authors of the report of Asian Centre for Human Rights argue that “the temporary relief camps have been turned into centres for military training and anti-Naxalite indoctrination education. As on 4 March 2006, 3,200 Adivasi boys and girls have been recruited as Special Police Officers (SPO) in Dantewada district alone at a fixed honorarium of Rs. 1500 to each per month. Many SPOs have not been paid any honorarium. Many have joined in the SPO with the promise of regularization in the State Police Force.”³⁴

While in the first years of their creation, these camps were covered by a food programme, food distribution was suddenly stopped, leaving the tribes deprived of their lands without any resources,³⁵ except to join the Salwa Judum movement, or to escape secretly during the night. The pressure applied to tribal by these two opposite armed groups is not only destructive for the livelihood of individuals, but also for the tribal relationship as many families and village communities are divided between those adhering or supposed adhering to Naxalites and to Salwa Judum. Such a

33 The report of Asian Centre for Human Rights quotes a camp dweller who explains: “We have shifted to the Arrabore relief camp just about 15 days ago. We have been told that my husband will be employed as Special Police officer if we shift to the relief camps started by the Salwa Judum and that he will get a monthly salary of Rs. 1500/ plus free ration.” Asian Centre for Human Rights (2006), 16.

34 Asian Centre for Human Rights (2006), 4.

35 Information of the person who housed me during my short stay in Chhattisgarh (July 2013). He took me on a tour of five camps, among which, he intervenes as a Registered Medical Practitioner for delivering free medical services. In all these camps, I noticed the numerous abandoned huts or houses, their dwellers having succeeded to escape according to information provided by neighbours. During my period of fieldwork corresponding to the collect of, many tribal of these camps were engaged in the collection of *mahua* seeds that they sold and partly transform in oil used for cooking.

situation leads to suspicion. As a chief of an IDP settlement replied when I asked him to explain the history of his displacement from Chhattisgarh:

“I am here because my village has been destroyed by Naxalites. I succeeded to escape into the forest where I hid. After two days, I returned to the village. There had some died people who were laid; there had no longer anything, my house was burnt and my cattle had disappeared. I have never related this story. Here, nobody speaks about this; we don’t know who is Naxalite or who is against Naxalite. This is better to never speak about that, we have to live together...”

The denunciation by the academic and activist milieu of the Human right violations perpetrated by Salwa Judum to the Supreme Court,³⁶ resulted on 5 July 2011 by the order declaring Salwa Judum illegal and unconstitutional and demanding the disbanding of the special police officers.³⁷ The condemnation of Salwa Judum, however, does not put an end to the armed conflict, nor to the violence, as the CRPF and Indian battalions continue to control the roads and ex-Salwa Judum camps and intervene in Naxalite-affected zones, and SPOs are still active.³⁸

3. *The Survey of IDPs Settlements*

The anthropological study commissioned by MdM was conducted in ten settlements located in the three revenue divisions of the Khammam dis-

36 See Open Letters to Government and Maoists (2006). In: Economic and Political Weekly 41, 27–28. 2977–2979. It appeals the government to stop the violations of human rights perpetrated by Salwa Judum and police force. See also criticism by Balagopal on the results of the National Human Right Commission (NHRC), commissioned by the Supreme Court to write a report on allegation of violations of human rights by both Naxalites and Salwa Judum, which condemned mostly Naxalites. The appointment of police by the NHRC for examining allegations and conducting enquiries is denounced by the author as an “unfortunate choice (...) The report makes no pretence of neutrality or objectivity. It has a 13-page introduction which is mostly a harsh comment on the Naxalites, described at the very outset as a *menace*, followed by a five page chapter titled *Human Rights Violations by the Naxalites*. The third chapter of just one and a half pages is on *Human Rights Violations by Salwa Judum* and another one and a half pages on the *Role of the Local Police, Security Forces and SPOs*.” Balagopal, K. (2008): The NHRC on Salwa Judum. A Most Friendly Inquiry. In: Economic and Political Weekly. 2183–2186.

37 See: http://www.countercurrents.org/Supreme_Court_judgm_679794a.pdf.

38 See: http://articles.economicstimes.indiatimes.com/2012-07-24/news/32827923_1_spos-salwa-judum-contempt-petition (retrieved on 26.11.2015).

trict, Bhadrachalam, Palwancha and Kothaguten, among them seven are situated inside the forest (see the map). For carrying out the study, I benefited from the help of a local NGO selected by Mdm as partner in its project of mobile clinics which selected the settlements, organised the transport, and food when I requested to stay the night in the settlement, and provided the translators. In each settlement, I conducted the survey in two steps: at the arrival, with the *pedda* (settlement chef), and then with all the IDPs of the settlements. In the situation of displacement where the chef's function is very unlikely be hereditary, the *pedda* is either the person who founded the settlement, or was selected by a group of IDPs who founded the settlement for his ability to speak Telugu and/or his educational level necessary for dialoguing with, and obtaining support from, local administration. The door-to-door survey has collected information from 116 persons (forty two families) residing in six settlements, and from two focus groups of eight to ten persons in the two remaining settlements due to lack of time.³⁹ Although my mission was to investigate the IDP's health and their perception on health care, it appeared essential to enlarge the study on their living conditions in the settlements, as these conditions impact significantly their health. In addition to open discussions with the *pedda-s* and IDPs to investigate their migratory trajectory and their difficulties and needs in the settlement, an exploration of the surrounding milieu was conducted. It comprised the water bodies used by the IDPs, lands for cultivation, kitchen gardens and the forest from where they collect food, medicinal plants, and some commercial products such as *mahua* flowers and seeds, resins, wood, etc. Several medical centres mentioned by IDPs during the discussions were visited: two primary health centres (PHC), four community health centres (CHC) and the government hospital

39 Three week fieldwork to conduct such a survey was definitively too short, notably in taking into account the time necessary to reach the settlements. That obliged to work intensively in each settlement in order to visit all the residents; a task far from being easy as the interviews required two language translators English/Telugu and Telugu/Koya, and at my request, a male and a female for Koya language. After around ten interviews, it was often difficult to capture translators' attention. These conditions to carry out the survey have obviously hindered the collect of information, notably, regarding the IDPs' behaviours related to hygiene and health including pregnancy and delivery that Mdm expected amazingly to obtain. To compensate the short duration, I requested that several nights were spent in settlements.

of Bhadrachalam. Interviews with a register medical practitioner (RMP),⁴⁰ two auxiliary nurse midwives (ANMs) in charge of IPD settlements,⁴¹ and the staff of the department of nutrition of the Integrated Tribal Development Agency located at Bhadrachalam were also carried out.

To get a better estimation of the IDPs' living conditions in the settlements, it needed to have an insight into those of the tribal people residing in the region from where the IDPs came. This comparison was all the more relevant so as a large part of IDPs, as it will be shown later, pointed out Andhra Pradesh as a state more developed than Chhattisgarh. Welcome and supported by a colleague of the local NGO's responsible; I spent a week in Chhattisgarh to visit several villages and Salwa Judum camps, situated around Konta and along the road Konta-Sukma. It was not possible, however, to reach the villages situated inside the forest that some IDPs had mentioned as their native place. According to my host, the tracks to go to the villages were impracticable because of rain, but I think that it was consequent to an order from the police who visited him the second day of my stay. The previous day, on my host's recommendation, I was gone to Sukma, with a document attesting that I conducted a comparative study on food pattern of Koya tribes in Andhra Pradesh, Chhattisgarh and Odisha, to be registered by the police station and collector.

40 The category 'rural medical practitioner' or RMP was established by the Government of Andhra Pradesh the 26.09.2008. The registration in the AP Para medical Board demands a full process of training, examination and certification. The RMPs use biomedical tools, but they are authorised to prescribe or use the medicines only sold *over the counter*. They are classified as paramedics and cannot use the title of *Doctor*. See: <http://cm.ap.gov.in/excmysr/26sep08press2.asp> (relieved on 24.07.2013).

41 The name of the IDP settlement is quite often the name of the closest village. When the settlement is established for several years and easily reachable, it may be recognised by the PHC and visited by the ANMs. However, the IDPs mention that the visits of ANMs who are in charge of monitoring the IDPs' health and implementing food scheme to pregnant and delivered women, are very irregular, and that food comprising rice, dhal and eggs, is rarely distributed.



- 1-Gaggaran (from 2006)
- 2-Gaddiguppa (from 2012)
- 3-Motey (from 2010)
- 4-Bandala Patu (from 2010)
- 5-Regada (from 2012)
- 6-Kothur (from 2006)
- 7-Pusuguvagu (from 2010)
- 8-Buchirai (from 2010)

CHC: Community Health Centres
 PHC: Primary Health Centre
 Hosp: Hospital

Map drawn by MdM

4. Foundation of the Settlements: Impact on the Forest

The approach of IDP settlements is far from an *enchantment*. After a more or less long (2 to 8 km) and difficult way in 4X4 vehicle and by foot, through the forest, one enters a wide area, from where emerged from place to place burned trunks, a few trees and small patches of grass and shrubs which have survived cutting or fire. Then, one reaches fallow and

ploughed lands that indicate the proximity of the settlements. The settlements are composed of twenty-five to forty huts of diverse sizes, organised in several groups of habitations ordered according to the relationship of the inhabitants and to their arrival in the settlements. Huts' walls are built, according to the sites, with branches or bamboo sticks plastered with mud, and topped by a roof made of grass or leaves of the palm tree. In the oldest settlements, the huts are more elaborated with a roof of tiles bought from Koya villagers living nearby, and walls well plastered and, for Dorla huts in particular, decorated with white drawings. The groups of huts, including some shelters for cattle and goats and a kitchen garden are sometimes enclosed by a barrier of bamboo or branches closely stuck into the soil for protecting the inhabitants from wild animals (snakes, tigers, bears etc.). If such a habitat inside the forest corresponds to the ecological universe of tribes, in Andhra Pradesh, it results from the impossibility of these displaced tribal people to find another environment to live.

The migratory stories of the *pedda-s*, which present numerous similarities, reveal how they were constrained to found the settlement inside the forest. Forced by Naxalites or anti-Naxalites to quit their villages or Salwa Judum camps, they fled to Andhra Pradesh in the hope of finding help from the Koya families which employed them for seasonal labour in agriculture. The Koya-s constitutes an important tribal community in Khammam district, and especially in the region concerned by this study. They live essentially from settled agriculture on lands more and less close to, or encroached on, the forest, from which they draw some food produces.⁴² The Dorla and Maria/Muria IDPs consider them as relative,⁴³ and rely on this to obtain the solidarity of Koya *sarpanch-s*.⁴⁴ In two cases, the *pedda-s* obtained, a piece of land to erect their huts, but in general, they were

42 Mis'ra, Kamal K./Bondla, D.J. Narendra (2010): Cultural Dimension of Biodiversity. Conservation among the Tribes of the Eastern Ghats. In: Indian Anthropologist 40, 1. 1-20. This tribal community conducted several rebellions against the colonial power and the Nizam rulers to defend their rights on the forest. Organised under the banner of the Communist Party of India, they obtained from the landowners, in the 1950s, the redistribution of a part of their lands, notably paddy fields, and of their cattle. Rupavath (2015).

43 This relationship is confirmed by several authors such as Mis'ra/Bondla (2010), and Mukherjee, Sonali (2014): Mining and Women. The Case of the Maria of Chhattisgarh. In: Social Change 44, 2. 229–247.

44 The *sarpanch* (H) is an elected member of a village who is at the head of the *pañcāyat*, the administration of the village. His function concerns the management

badly received. On the one hand, the Koya-s fear that the IDPs' presence intensifies Naxalites' activity in this region, and on the other hand, they are not willing to share their lands and resources with the IDPs. In the first step, the *pedda-s* tried to stay close to the Koya village they knew, but they were pulled out by the Forest Department staff. Obligated to remain hidden during the day for avoiding to be discovered by the police, they recount that forest became the only means to survive. However, it did not prevent them from harassment by the Forest Department. The *pedda-s* of settlements located deeply in the forest mention that, before succeeding, they were displaced several times, by the Forest Department staff who burnt their hut. The strategy they found to thwart a new displacement was to identify IDPs in quest of living place in order to form a community sufficiently large to be able to clear a large area of the forest and to construct a good number of huts in a short time. This strategy echoes the attitude of the Forest Department when new IDP settlement is discovered. The officer of this department at Kothagudem I interviewed told me: "If we imprison or send a case to court, the human rights members intervene immediately and the people [IDPs] are released. We can do nothing, except to burn the huts when we discover a new settlement under construction. But when a large part of the forest has been already clear, it is too late. If we burn the huts, they will go to another place, and another area will be devastated."

In this region, the forest bears the traces of the numerous attempts to establish a settlement. On the way that led to settlements, it was common to go through two or three areas more or less wide clear of trees. The agricultural system used by tribal people in Chhattisgarh is shifting cultivation which has survived despite its condemnation by the colonial rulers and by Indians after Independence. The change this agricultural method has experience has been the use of wooden plough. But in Andhra Pradesh shifting cultivation is seldom possible. The shift of lands, after three-five years of cultivation, will generate inevitably conflicts with the Forest Department. In this context, the IDPs privilege permanent agriculture. It prevents from displacements by the Forest Department, and the surface of land gained from the forest allows for compensating the feeble yield during the first years of cultivation. But in counterpart, it accentuates the degradation of

of the village infrastructure (road, electricity, water, school, etc.) and the development of the villagers (cards for various social schemes, schooling etc.) He acts as an intermediary between the state government and the villagers.

the forest milieu of this region as tens of hectares are deforested to fit the requirement of the settlements' dwellers.

In the objective to establish their settlement, the *pedda-s* used two means for finding IDPs: they visit the tribal weekly markets, places of transaction for commodities as well as of meeting between tribal people, and call their relatives and acquaintances living in Chhattisgarh. The number of families residing in these settlements during the ethnography who declared to be come on the invitation of the *pedda* was high, certainly more than fifty percent in certain sites. This questions the identity of these persons: are they IDPs? Indeed, discussions revealed that their venue was not motivated by insecurity and violence issues, but by attraction to a better life: the state of Andhra Pradesh was perceived as more developed than Chhattisgarh; they expected to benefit from its socio-economic advantages and social schemes. Such motivations, however, do not deprive them to be classified IDPs as the definition of United Nation (1998) includes also persons who leave their residence "in order to avoid the effects of armed conflict." The venue of this population, not directly affected by the conflict, increases obviously pressure on the forest milieu. Such a damaged environment raises important ethical issues about two realities which cannot match: that of the degradation of the forest while the preservation of environment has become a world priority; that of populations which, to survive, are obliged to live in the forest and to clear the trees for insuring partly their food security. The conditions in which they have to live are inhuman. Their life is constantly at risk, as much by diseases related to their living conditions as by those inherent to the environment in which they are forced to live.

5. *Living Conditions as Precarious as Inhuman*

After opening the discussion with the *pedda-s* and the IDPs on their migratory history, my first question to evaluate their living conditions was to ask them to list their needs according to the priority. This question allowed for investigating if health was perceived by IDPs as an issue, and what were the main obstacles they met in this new environment. Although the IDPs knew that my venue was related to the project of mobile clinics, no one of the 116 interviewed persons mentioned health services. The two major needs which emerged were bore well (100 times) and ration card (80 times).

In all the settlements targeted by the study, access to water and availability of drinking water was a major issue. The water was drawn from streams located often far from the settlement (one to two km). The quantity of the water depends on the season, and its quality is dubious. At the period of study which coincided with the beginning of rainy season, the streams were well supplied, but the water was muddy, even when drawn from some wells dug along the water bodies. Moreover to be mixed with mud which, according to the areas, is charged in particles coming from mining activity, the water was contaminated by faecal matters coming from cattle and sites of defecation used by the IDPs. The water conditions have important consequences on IDPs' health. When they were questioned on their health conditions, skin diseases and diarrhoea that they attributed to the quality of water were mostly mentioned. The lack of immediate access to the water affects also the general state of health, notably that of women in charge to go to the stream, twice a day, the morning and afternoon, for bathing, washing dishes and clothes, and bringing water back for cooking and drinking. This task adding to the intensive daily activities concerning land (deforestation, agriculture, cattle care, kitchen gardening), construction of huts, house work (pounding cereals, cooking, children care, etc.), requires energy which that the food is not really able to provide.

Except for the settlements established in 2006, most of those covered by the study were too recent to have lands capable to feed the communities. The lack of cattle to plough the land and of seeds was mentioned as hindrances. In the most of new settlements, some huts, with only a few furnishing, were closed. Requesting the reason, I heard quite often that the families were returned in Chhattisgarh to obtain cattle and seeds from their relatives.⁴⁵ The IDPs were constrained to buy rice, pulses and spices from

45 These families concerned those who had migrated for socio-economic reasons. In order to convince their relatives to give cattle, they are forced to stay two months and more in Chhattisgarh. The interest to get seeds from Chhattisgarh is not with regard to the symbolic attachment to the native place (nostalgia, identity construct), as mentioned in numerous studies of migration in which 'ethnic' foods serve to maintain the link with the culture of origin. Holtzman, J.D. (2006): Food and Memory. In: *Annual Review of Anthropology* 35. 261–278. Mannur, Anita (2007): Culinary Nostalgia: Authenticity, Nationalism, and Diaspora. In: *MELUS* 32, 4. 11–31. Nyman, Jopi (2009): Cultural Contact and the Contemporary Culinary Memoir: Home, Memory and Identity. In: Madhur, Jaffrey/Abu-Jaber, Diana

the Kirana stores (governmental low cost shop)⁴⁶ and, when they had a little of money, vegetables from the tribal market. The way they got money was limited. Some got seasonal work in Koya or Lambada lands for a meagre salary, 80 to 100 INR per day according to the task; women were less paid, and the number of work days rarely more than ten per season. IDPs living close to a paper factory might be employed, but the hard work conditions prevented them to be regular: they worked 24 hours (8AM to 8AM) with two breaks for meals, for which they were paid 200 INR. In order to save the 40 INR requested for the rickshaw, they left the settlement at 4.30 AM and returned the next day around noon. Low wages and work conditions testify their exploitation by the population of the region. Moreover, the milieu in which they were living, due to its high degradation, offered little possibilities to complement their revenues. According to the location of settlements, IDPs might collect flowers and seeds of *mahua* tree, resin of *sal* tree, honey or timber, but the amount they got mirrors again their exploitation by brokers. In one of the settlements where men were squaring off some trunks, the *pedda* explained that, for each timber resold between 2000 to 3000 INR, they were paid between 600 and 800 INR.⁴⁷ In contrast, the IDPs installed since 2006, had more opportunity to get money, notably by selling cattle, pigs and goats.

The food pattern of Dorla-s and Muria-s/Maria-s is based on two meals a day, one between 9 and 11 AM and the second after 7 PM. IDPs' eating pattern follows this rule, but some families complained to be obliged to skip one meal, and sometimes, to beg rice from hut to hut. "If we have money, we buy a few onions, tomatoes, potatoes, aubergines, lady fingers,

(eds.): *Auto/Biography Studies* 24, 2. 282–298. Srinivas, Tulasi (2006): *As Mother Made It. The Cosmopolitan Indian Family. Authentic Food and the Construction of Cultural Utopia*. In: *International Journal of Sociology of the Family* 32, 2. 191–221. Sutton, David E. (2001): *Remembrance of Repasts. An Anthropology of Food and Memory*. Oxford. In this context, it was related to the adaptation of seed varieties to cultivation in the forest milieu (soil poor in micronutrients, rain-fed cultivation) and, regarding rice, to its higher nutritional quality.

46 In June 2013, they bought rice at 15 INR per kg and *tur dhal* (pigeon peas) at 45 INR per kg. In a settlement whose the IDPs had benefited from the help of the *sarpanch* of a village to establish temporary themselves, they bought rice and grains from the Koya farmers of this village, who employed them seasonally.

47 This transaction is entirely illegal. When we left the settlement, we crossed some rickshaws at top speed which transported several pieces of wood destined to house building. The severe regulation on the tree cutting which causes high wood cost, has favoured mafia networks which use tribal or forest dwellers.

and rice, but if we haven't, we have to look for bamboo stem, *boddu kora* (wild green leaf), tubers, and wild animals (deer, rabbit, rat, varan, and red ants)." The kitchen gardens, present in all the settlements, provide some green leaves and vegetables. However, during the survey, conducted at the end of summer, no vegetables were available. The visit of huts confirmed the scarcity of food storage and the poor diet, quite often composed of rice and *boddu kora*.

The main food-related issue is much more scarcity than unbalance, notably for IDPs established in 2006 as the cereals they cultivated from their traditional seeds are more nutritional than the rice bought in Kirana shop. On the one hand, the cereals are more varied, and on the other hand, they are de-husked manually so that they retain a large part of their nutritive quality. They attributed to the rice from Chhattisgarh nutritive values: "If we eat this rice in the morning, we are not hungry for the whole day, but if we eat PDS rice, we have no energy to work." However, the cereals and grains they cultivate in Andhra Pradesh' forest are only red rice, maize, and *thur dhal*, while in Chhattisgarh, they grew a large range of varieties: red rice, maize, sorghum, small millet, pigeon peas, black gram, red lentils and green gram dhal. The abandonment of cereal and pulse varieties, for which I did not succeed to know the reasons, is obviously detrimental to their diet, as it deprives them from diversified micronutrients and amino-acids. Such a diet, poor in proteins and micronutrients, is not compensated by animal proteins: milk, considered the food of the calves, is not drunk and used by these tribal people, and meat from domesticated animals (beef, pig, hens) is consumed only occasionally at biographical and religious celebrations. The hunting, essentially practised at periods corresponding to the sowing of lands, provides some protein resources, but in such a degraded environment, the availability of animals remains very feeble. Interestingly, when I questioned a group of ANMs in a CHC about IDPs' hygiene, all their responses revolved around the food habits that they qualified as unclean, and denounced as responsible in diarrhoea. The foodstuffs they mentioned were dried fishes and meat of wild animal. These food items, when they were present in the huts, were preserved hung above the stove and exposed to the smoke fire. While these nurses have also the role to educate the people on health including nutrition, their perception on tribal food, obviously, questions their knowledge of nutrition. Their representation of the IDPs as *Others*, those who hold "a non-

normative and socially subordinate status,⁴⁸ was decipherable in their remarks, not only on food, but also on health-related subject and delivery.

Although food was mentioned as a main need, conditions such as scrawny bodies and children's swollen bellies weakness were never uttered. Symptoms of weakness, headache and dizziness, as well as complaints of low blood pressure were never related to a state of undernourishment. According to the literature on these tribes, these symptoms are perceived as caused by evil spirit attacks.⁴⁹ Interviews of doctors and the lab technicians of CHCs and Bhadrachalam hospital revealed that the haemoglobin concentration in the blood of the IDPs who consult with complaints of weakness, headache, dizziness, etc. is on average half of the normal level (in India), i.e., 5 to 6g/l. It is worth mentioning that these tribal populations are identified as being subjected to have genetic disorders favouring anemia, such as to be bearer of the Dully-negative phenotype, a condition which does not protect from the infection of *Plasmodium falciparum*,⁵⁰ or to have sickle cell trait, a genetic abnormality of haemoglobin resulting by curved shape red cells, more prevalent in Marias than in Dorla-s.⁵¹ Food scarcity, in such conditions aggravates anaemia, and consequently, favours infections and mortality, notably of infants and children.⁵²

Among the sample, the main infections which were identified, except for wounds sometimes seriously infected, are tuberculosis (two cases, both treated by CHCs' medical staff) and respiratory infections. As the rainy season was begun, many people complained on fever, that they related to malaria, a disease that they feared due to its high mortality. The mortality caused by malaria is all the more high so as the people are weakened by undernutrition coupled with hard work, and may have genetic blood ab-

48 Seidman, Steven (2013): Defilement and Disgust: Theorizing the Other. In: American Journal of Cultural Sociology 1. 3–25.

49 Grigson (1938).

50 Varma, Ishwar C./Archana, Thakur (1993): Duffy Blood Group Determinants and Malaria in India. In: Journal of Genetics 72, 1. 15–19.

51 Negi, R.S. (1962): The Incidence of Sickle-Cell Trait in Two Bastar Tribes. In: Man 62. 84–86. Negi, R.S. (1964): New Incidence of Sickle-Cell Trait in Bastar. In: Man 64. 171–174.

52 Arnold, Fred /Parasuraman, Sulabha/Arokiasamy, P./Kothari, Monica (2009): Nutrition in India. National Family Health Survey (NFHS-3) India, 2005–06. Mumbai. The HUNGaMA Survey Report (2011): Fighting Hunger & Malnutrition. Hyderabad.

normality. Two IDP deaths caused by malaria were mentioned during the survey. While the number of deaths mentioned by IDPs was of four adults, that of infants and children were higher. Two families declared having lost a baby, four a child, and one, three children among them, two in Andhra Pradesh. It was difficult to know the cause of the death. The mothers mentioned fits, fevers or respiratory distress, symptoms they related to evil spirit attacks for which they consulted only the traditional practitioner. The traditional practitioner (*wadde*), when he is available in, or close to, the settlement, is always consulted. Only if the treatment fails and the disease is too debilitating for working, they turn to medical centres. But IDPs were reluctant to visit them. They complained that the medical staff was little attentive to them and have to wait hours before being treated. Some mentioned that they were obliged to be accompanied by an IDP who speaks Telugu, and other emphasised that they had to go to another centre, because the centre had not the means (doctor, exploratory tools, medications, etc.) to treat them. This last point was confirmed while I was in a CHC: an IDP youth with a leg seriously inflamed up to the groin caused by a snake bite, arrived from a PHC where he was refused and, without the intervention of the president of the NGO partner of MdM, would have to go to Bhadrachalam Hospital (20 km away) under the pretext that the centre did not have anti-venom serum. The local NGO's responsible, finally, succeeded to convince the CHC's staff to hospitalise the young patient who was put on a drip containing anti-venom. If I did not get any response about the reason the CHC's staff attempted to refuse the young patient, it seems to me that it was to avoid the occupation of a bed which would have necessitated more care and surveillance, notably during the night.

As I could experience in the PHC and CHC I visited, I was never invited to see the wards, simply because they were empty. Such medical attitude and limitation is not only detrimental to the patient's health, but it also increases the transportation expenditure. The cost of transportation, in a situation of total deprivation, is an obstacle to visit medical centres. In addition to these difficulties, their *illegal* presence in Andhra Pradesh, even though they never mentioned this criterion, might be also a reason that thwarts the recourse to medical centres. The medical staff of the diverse visited centres did not show any empathy to the IDPs, and seemed ignored their living conditions. They considered IDPs as *bad patients*:

“They come only at the last stage of the disease, so that they complain that our medicines are not working. They are not confident in our medicines and

they do not take them properly. As soon as they leave the PHC, they throw them away and go to their traditional practitioner.”

The medical staff perceived them as “not civilized” people:

“they want to live as they always lived, inside the forest, far from our word.”

6. Conclusion

Despite the multiple difficulties to survive in such a hostile environment, the *pedda-s* were optimistic on the improvement of the living conditions of their settlements. The fact that NGOs (MdM, ECO and NGO partner of MdM) helped them, even though their programme does not cover their need in food and water, allowed them to feel protected from the repressive attitude of the Andhra Pradesh government, and to expect some social advantages attributed to the people of Andhra Pradesh. IDPs consider Andhra Pradesh as a living place better than Chhattisgarh. This is not only that they feel more in security, but especially, as commonly pointed out during the interviews with those who came on the invitation of the *pedda*, for its development and its social welfare policy. Although dwelling inside the forest, the IDPs are not isolated. They maintain the contact with the outside world through cell phones recharged in the village close to their settlement or, in some cases, thanks to a solar panel they brought from Chhattisgarh, or through weekly tribal markets. In these markets, they come in contact with IDPs, installed in Andhra Pradesh since several years, who have benefited from governmental advantages (bore well, ration cards, *anganvadi*,⁵³ integration in schools, etc.), through the NGOs’ plea. The IDPs do not call themselves Dorla or Muria/Maria, they adopt the name of Guttikoya. This name, supposedly stemmed from human right defenders (NGO, academic or lawyer),⁵⁴ defines a scheduled tribe refer-

53 An *anganvadi* is a crèche for pre-school children until five year old. Launched by the Indian government in 1975, it is a part of the ICDS (Integrated Child Development Services) scheme aiming to combat child hunger and malnutrition. The programme, in principle, provides nutritious food to children as well as to girl adolescents, and pregnant and lactating women.

54 Despite my attempts, I did not succeed to know how the change of name was done. Remarkably, these IDPs are called in Khammam district, Guttikoya, not only by NGOs and local people but also by official people such as those of the Forest department.

enced in the list of notified tribes of Andhra Pradesh and, in principle, covered by welfare schemes. By this way, they expect not only to get social and economic advantages, but also the right to live in the forest and cultivate the land they cleared out. However, in waiting to get recognition from the Andhra Pradesh government, they have to survive in a harsh environment which deprives them from essentials such drinking water and food, and for the children, from schooling, and affects their health weakened by hard work, and notably for some women, by psychological distress resulting from traumatic events experienced in Chhattisgarh (murders, rape, beating, etc.), during the migration (repetitive displacement, police's enquiry, rejection, disease and death) and in the new settlement (death and disease, difficulties to find food, family separation).

The Andhra Pradesh/Telangana government is not willing to provide assistance to the recent settlements as IDPs represent a source of problems in terms of security due to the spectre of Naxalite activity and of environment degradation. Its solution is to control the frontiers with Chhattisgarh and to ignore the IDPs' living conditions. Facilitating their integration into the welfare programmes would definitively attract more migrants from Chhattisgarh, due to the fact that the state of Andhra Pradesh is perceived as more economically and socially developed. Such afflux of population would endanger the stability of the region, Khammam is not only one of the most backward districts of the state with around 20 percent of tribal and 80 percent of rural populations, but also a region which was the siege of many political dissensions around rights to land, and is today in the heart of a debate about the Polavaram irrigation project, several times stopped by financial constraints, and disagreement between the three concerned states or by activists (Chhattisgarh, Odisha and Andhra Pradesh/Telangana). The dam on the Godavari River at Polavaram, once completed, is expected to displace 276 villages with a population of 300,000 persons among them half are tribal people. While 56% of the project is completed, activists and the National Commission for Scheduled Tribes are already fighting the Telangana government against its failures to compensate displaced people which contravene the the Forest Rights Act, 2006, and the Land Acquisition and Rehabilitation Act, 2013. They renounce the low quality of lands when they are distributed and the localisation of tribal people which deprive them to access to the forest produces. Such a displacement of population belonging mostly to the tribes as well as its exploitation by government officials and decision makers leads obviously to

the development of activist movement and Naxalite reprisals, and thus, to a tribal people's future ever more precarious and insecure.⁵⁵

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Conflict and Environment in Sri Lanka, a Complex Nexus

*Anthony Goreau-Ponceaud*¹

1. Introduction: a New Type of War

Since the conclusion of the Cold War, a new type of war has engulfed the global South, threatening the security of the rest of the world. The *new wars*, which are mostly internal and regional forms of conflicts, have threatened progressively the lives of civilians more than those of combatants. Moreover, these *new wars* are frequently described as a complex humanitarian emergency. Regularly depicted as a post-Cold War phenomenon, complex humanitarian emergencies are characterized by a multiplicity of man-made causes, often infused with political dissent and prolonged violence.² The Sri Lankan case study is an example among many others of these new wars. For the best part of three decades (from 1983 to 2009), Sri Lankan society was torn apart by a war between successive governments and the Liberation Tigers of Tamil Eelam (LTTE), the Tamil insurgent group fighting for a separate homeland for the Tamil minority.³ The conflict generated large-scale refugee flight over several decades, contributing to the formation of a substantial Tamil diaspora⁴ of around a

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2 Duffield, M. (1994): *Complex Emergencies and the Crisis of Developmentalism*. In: *IDS Bulletin* 25, 4. 37–45. Duffield, M. (2001): *Global Governance and the New Wars: The Merging of Development and Security*. London. Duffield, M. (2007): *Development, Security and Unending War*. Cambridge.

3 McDowell, C. (1996): *A Tamil Asylum Diaspora. Sri Lankan Migration Settlement and Politics in Switzerland*. New York. Fuglerud, Ø. (1999): *Life on the Outside. The Tamil Diaspora and Long Distance Nationalism*. London.

4 In this paper the term diaspora is used as an analytical category to describe the migration processes and transnational connections of the approximately one million Sri Lankan Tamils displaced all over the world. The usage of the term diaspora implies that Tamil migrants refer back to a *homeland*. Diasporas are not static entities but heterogeneous and dynamic formations. As Brubaker writes: “In sum, rather than speak of ‘a diaspora’ or ‘the diaspora’ as an entity, a bounded group, an ethno-demographic or ethno-cultural fact, it may be more fruitful, and certainly more pre-

million people.⁵ Like other diasporas from conflict-ridden societies, this transnational population has kept close contact with relatives and communities left behind and with political developments in the erstwhile homeland. This sizeable Tamil diaspora usually funded the insurgency driven by guilt about those they had left behind. This millions strong diaspora is a reservoir for separatists aspirations and has been willing to fund violence in the past. A new generation has been politicized by the final months of the conflict. This new war is also a good example to study the relationships between war and environment. Academic researchers, environmental organisations and advocacy movements in Sri Lanka, while working and campaigning on problems and issues pertaining to the South, appear to have been either ignorant or silent on the ecological consequences of the war. The paucity of data also means that we will not be able to present quantitative information; we will, however, attempt to paint a qualitative picture of the consequences of the war on the environment.

During the Eelam Wars⁶, there was considerable concern about the use of unconventional weapons and specifically chemical weapons (such as the utilization of acid, thermobaric bomb, cluster bomb munitions or white phosphorous), bombs and mines. At the same time deforestation took place during the 1980s and early 1990s when Government soldiers cleared

cise, to speak of diasporic stances, projects, claims, idioms, practices, and so on.” Brubaker, R. (2005): *The Diaspora* Diaspora. In: *Ethnic and Racial Studies* 28. 1–19. 13.

- 5 Fuglerud (1999). Goreau-Ponceaud, A. (2014): Ganesha Chaturthi and the Sri Lankan Tamil Diaspora in Paris: Inventing Strategies of Visibility and Legitimacy in a Plural Mono-Cultural Society. In: Gallo, E. (ed.): *Migration and Religion in Europe. Comparative Perspectives on South Asian Experiences*. Farnham. 211–231.
- 6 Eelam Wars are the 4 stages of the Sri Lankan civil War that took place from July 1983 to May 2009. Nobody knows how many thousands died in the final week of the war. As mention by Frances Harrison, “the world turn a blind eye to the tens of thousands civilian deaths that took place in the north-east Sri Lanka in the space of just five months in 2009” (2012:6). The winning strategy used by the government of Sri Lanka involved scorched-earth tactics, blurring the distinction between civilians and combatants, and enforcing a media blackout. The human cost of the “Sri Lankan option” as this winning strategy is referred in the academic circle is terrible. Since the defeat of the Tigers there’s been no attempt to address the underlying causes of the conflict. Sri Lanka is a small country but according to some accounts there are more than 200,000 internally displaced Tamils, 40,000 war widows in the northern town of Jaffna alone, according to the UN population figures there would appear to be well over 100,000 people missing as a result of the final five months stage of the war (Harrison, 2012).

the rainforests because they served as refuges for rebel forces. This also displaced small-scale farmers. Between 1990 and 2005 Sri Lanka had one of the highest deforestation rates of primary forest in the world with more than 18 percent of the remaining forest cover lost in that period.⁷ Reconstruction efforts in the wake of the 2004 tsunami also increased the pressure on the country's forests. All these warfare practices are not only attacked but also weaponized environment. In a Kantian framework, the natural world is deserving of respect and the natural world and its contents have inherent worth, thus meriting an attitude of respect from human beings.⁸ From this affirmation of biocentrism,⁹ human beings ought not directly and deliberately destroy the natural world in pursuit of political, social or military objectives. In a biocentric pattern, how to immunize environment from warfare activity? War inevitably distorts the ways in which humans are dependent on the natural world. With the Sri Lankan case study I will show that war undermines the context of conditions for liveable life, delivering destruction to the natural world.¹⁰ This destruction occurs as the result of a failure to recognize not only the way humans are dependent on the environment but the way humans are inserted into a web of interdependences with all other life forms.

Recently, environmental historians have shown an interest in war and its effects on the natural environment, but their work essentially focuses on World War II and the nuclear era.¹¹ These studies often highlight the links between the conduct of war and industrial and agricultural practices in a society. The vast majority of work on the relationship between war and environment focuses on military, political and economic aspects, but largely neglects ecological upheavals – that is, changes in the interactions between organisms and their environment – and the long-term environmental changes caused by the evolution of social and natural relations between humans and ecosystems, which accompanied the conflict. Studying

7 Lindström (2011).

8 Taylor, P.-W. (1986): *Respects of Nature: a Theory of Environmental Ethics*. Princeton.

9 Biocentrism is the belief that the Earth not only has a value beyond its use value to humans (intrinsic value) but also that humans ought not to act in such a way as to interfere in natural processes.

10 Butler, J. (2009): *Frames of War: When is Life Givable?* New York.

11 Tucker, R.-P./Russell, E. (eds.): (2004): *Natural Enemy, Natural Ally: Toward an Environmental History of War*. Corvallis. Clossmann, C.-E. (ed.) (2009): *War and the Environment: Military Destruction in the Modern Age*. College Station.

the relationships between war and environment in Sri Lanka is also interesting regarding the role of religion in the production of ethical principles (Buddhism and Hinduism). One theme within contemporary environmentalist discourse concerns the idea that the way in which people treat their natural environment can be related to their religious beliefs and practices. We have to compare the moral status of the environment and how it is produced by these two major religions of the island and interpreted in a context of war.¹² My paper will be divided into three parts.

After describing why Sri Lanka is particularly suitable for dealing with the subject, I will analyse in my second part the impacts of war on human and natural environment. In this part, I will show that in a process of inflicting damage on an enemy whose survival depended on rural natural resource based economy (the Jaffna peninsula), the natural world became a direct object of attack. The destruction directed at the paddy fields, forests and jungles of Vanni (Northern Province) treated the environment as a mere means to an even more destructive end. Furthermore, the use of landmines transformed the nature itself into a weapon. Step by step, during the Sri Lankan civil war, nature is transformed from a relational partner into a weapon. Large-scale population displacement linked to the war also leads to environmental change, disrupting local ecosystems and livelihoods. The conflict had detrimental impacts on the environment. The biodiversity, natural resource base and wealth of the State have been significantly harmed by bombings, planting of landmines and aerial attacks. Elephants and their terrain, one of the most fiercely guarded wildlife reserves of Sri Lanka (such in Wilpattu national park) of Sri Lanka, have been adversely affected. Human habitation has also been through dreadful ruins and degradation and has been a cause of serious concern to the government and people.

The civil war in Sri Lanka (1983–2009) saw massive migrations amongst the civilian population and widespread damage to villages and towns. The events of the war changed the cultural landscape and, in the

12 The Hindu tradition has received much attention within religious environmentalist literature with commentators arguing for its innate sensitivity towards the natural world. For many scholars, Hinduism and Buddhism have great promise as a basis for an environmental ethic, because it teaches a concern for the other animals and nature as well as our fellow humans. Both Buddhist and Hinduist world view is holistic and seeks harmony at all levels: within each person, among persons in society, and within the universe, of which humans are but a part.

same time, the cultural landscape influenced the course of the war. By cultural landscape, I am referring to everything from settlement patterns, house types, transportation networks, land use patterns, and urban morphology to less tangible elements of iconography and perceived meaning. The variable character of this landscape played an important role in structuring the course of the war. Fieldworks for this study were conducted during the summer of 2015 in the Eastern Province of the Island and between 2010 and 2015 both in France and in India among the refugees from Sri Lanka (Sri Lankan Tamil links to the sixty million fellow-Tamils who live just across the water in the southern tip in the Indian mainland made the Sinhalese insecure. A majority with a minority complex is how many have described them). These fieldworks included numerous semi-structured interviews regarding the landscape histories of villages, towns and patterns of flights and displacement¹³. These findings revealed that a clear relationship existed between the civil war and the cultural landscape created what we could name a *warscape*. As defined by Korf/Engeller/Tobias (2010), *warscapes* are “landscapes characterized by brutal violence, political volatility, physical insecurity and the disruptions and instabilities that exist in many civil war zones that different social actors navigate through.”¹⁴ The Sri Lankan warscape was not confined to the territories of Sri Lanka, but extended into a transnational space linked to a refugee diaspora. On the one hand, the war caused dramatic changes in the morphology of the cultural landscape, creating three distinct landscapes (pre-war, wartime, and post-war), while on the other hand the cultural landscape went far to structure the character of the war.¹⁵ In such context, the certainty of uncertainty has become a fundamental reality in the lives of social actors (for those who made a political choice and were involved in the LTTE as combatants and are now living abroad as refugees all they want is to find somewhere quiet to live in obscurity – as far away from their fellow-Tamils because of the fear of betrayal).

13 During these fieldworks, I conducted semi-structured interviews with refugees both in India and France and former combatants in order to reconstruct the landscape history and gain more detailed local knowledge about the history of the war and its effects. I did this research with the assistance of a local guide and translator.

14 Korf, B./Engeller, M./Tobias, H. (2010): The Geography of Warscape. In: Third World Quarterly 31, 3. 385-399.

15 Korf/Engeller/Tobias (2010).

In my third part, I will analyse the impacts of human and natural environments on war. The military victory achieved in the north over the Liberation Tigers of Tamil Eelam has created an appearance of peace in the country, but minority ethnic communities have a strong feeling of dissatisfaction since their control over their lands has been reduced. It is feared that the continued military control of the area is set to provide opportunities for businesses, including foreign investment that will take control of the land and other natural resources. Sri Lanka's military is dominating the reconstruction of the Northern Province, weakening international humanitarian efforts and worsening tensions with the ethnic Tamil majority. Since the war ended in 2009, hundreds of millions of dollars have poured into the province, but the local populations, mostly left destitute by the conflict, have seen only slight improvements in their lives. Instead of giving way to a process of inclusive, accountable development, the military is increasing its economic role, controlling land and seemingly establishing itself as a permanent, occupying presence. In the North there is one Sri Lankan soldier for every eleven citizens. According to Harrison, the Sri Lankan military has actually expanded since the end of the war, adding 100,000 men to its ranks. Combined with what many Tamils see as an effort to impose Sinhala and Buddhist culture across the whole of Sri Lanka and a failure to address many social aspects of rebuilding a society after conflict, these policies risk reviving the violence of past decades. Furthermore, the tsunami that hit the island in December 2004 led to a death toll of 35,322 and displaced 516,150 people. In 2005 plans for rebuilding the country suggested the expulsion of all coastal fisher people. Their land was to be used for the development of tourism zones and modernized cities, designed for rich elite. It was also intended to switch into large-scale industrial fishing that would replace the small-scale, beach-based fishing on which people's livelihoods depended. Labour protection laws were to be revised to enable the free hiring and firing of workers, since it was assumed that investors were unlikely to come to countries where labour was protected by law. In Sri Lanka, the ethnic bias and identity politics embedded in land policies have a long history.

The last part will conclude that environment is a quasi-person in Sri Lanka which has an agency. These human and natural disasters are a real collapse of everyday life that can create the conditions for an unprecedented explosion of different dynamics (social, political, environmental and economic) dynamics. As Bruno Latour writes, it is even possible that in such contexts, to experience the disturbing and electrifying feeling that

things could turn differently: in this case, “we are no longer sure about what we means.”¹⁶

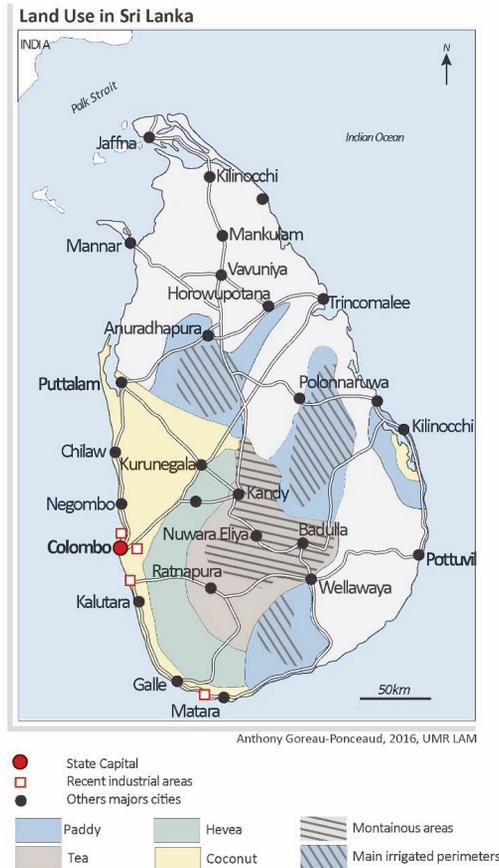
2. The Sri Lanka Conflict

The conflict in Sri Lanka is neither a simple ethnic contest nor a mere two-sided affair. Studies from the fields of political economy, geography, anthropology, and sociology emphasize that the titanic military struggle between the Government of Sri-Lanka (GoSL) and the Liberation Tigers of Tamil Eelam (LTTE) was the product of a continuing series of alienating and isolating moves by GoSL and escalating responses from the LTTE. Sri Lanka has remained in the global map of conflict for more than two decades. Since 1983, displacement in Sri Lanka has been embedded in intractable conflict which has produced an ongoing condition of insecurity.¹⁷ What began as a conflict between the Sinhala and the Tamil communities gradually grew into a demand for the creation of separate homeland for the Tamils. After almost three decades of brutal armed conflict, on 19 May 2009, the GoSL declared victory over the LTTE. The final stages of the conflict saw numerous allegations of violations of international humanitarian law and international human rights law. In May 2009, Sri Lankan military forces finally declared victory over the Tamil Tigers. The deadly conflict cost the lives of an estimated 80,000–100,000 people including Army soldiers, Tamil fighters and civilians. By 2007, the civil war had displaced more than 460,000 people in the North-East region of Sri Lanka. The final stages of the war alone created an estimated 300,000 internally displaced persons.

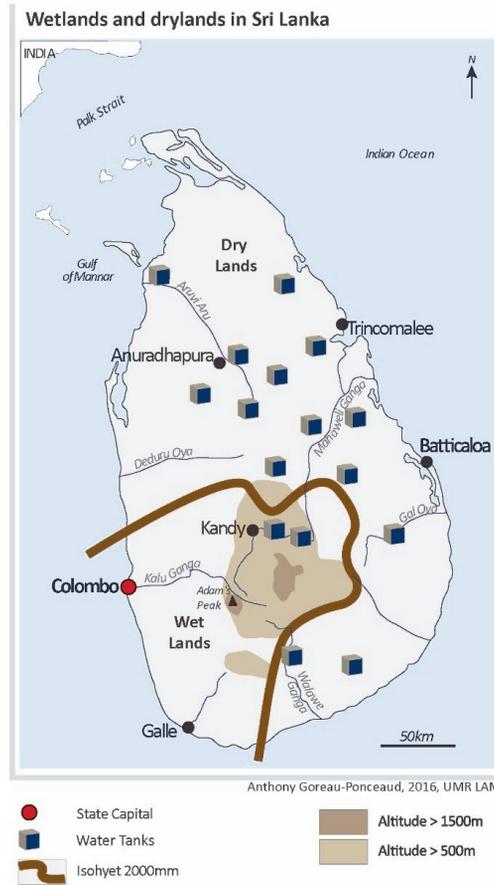
16 Latour, B. (2005): *Reassembling the Social. An Introduction to Actor Network Theory*. Oxford. 6.

17 The 1983 pogrom – generally taken to mark the beginning of the war in the country – was a major turning point in the conflict and it is considered by the Tamil Diaspora as the beginning of the war and as the beginning of the life in exile. Tamils call it “Black July”. In the capital, Sinhalese mobs used the killing of the thirteen soldiers as the trigger for a pre-planned pogrom. They attacked Tamil shops and homes, burning them and hacking people to death in the streets. The rioters came, armed with electoral lists as well as machetes, so they could distinguish who was Tamil.

Figure 1: Ecosystems and population in Sri Lanka¹⁸

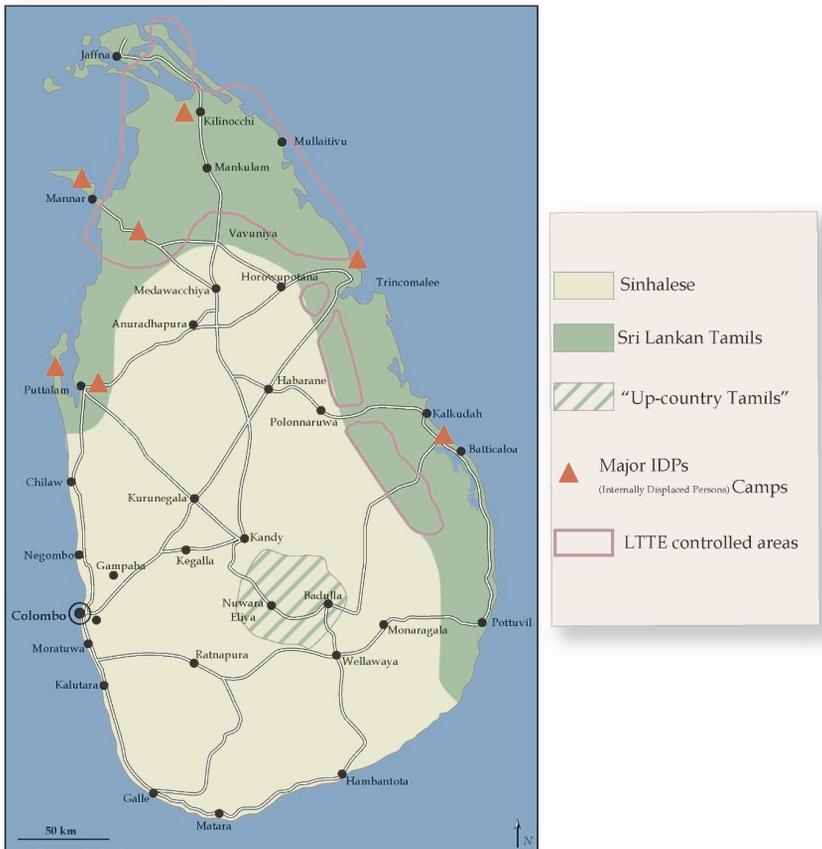


18 Legend: The question of “who was here first” assumes prime importance in the island, and historical writings of the colonial masters and the local historians have played a crucial role in defining the identity. As pointed out by Spencer, “both ‘official history’ and ‘opposition history’ agree on the basic terms of the argument: present conflicts can only be explained by reference to the past. The war which has been fought between the armed Tamil separatists and the Sinhala-dominated government has been accompanied by rhetorical wars fought over archaeological sites, place-name etymologies, and the interpretation of ancient inscription.” (Spencer, J. (1990): Sri Lanka: History and Roots of Conflict. London. 3.) The Northern and Eastern Provinces are characterized by key distinctions in terms of LTTE control, social organization, population composition, and conflict im-



pacts. The community of northern Tamils, particularly those from Jaffna, held pre-eminence in terms of caste (vellalar), culture, and preference under British rule (Bush 1993). The LTTE has always made its base in the Northern Province, first in the largest population center, Jaffna, and then in the Wannai region, with their headquarters in the Kilinochchi District just to the south. While Jaffna and the Wannai once had substantial Muslim majorities, these populations were displaced by LTTE fighters during the 1990s. The conflict in the north has always been characterized by clearly delineated lines of control. By contrast, Eastern Province has been characterized by considerably greater population heterogeneity, a more complex system of overlapping political and military control, and a much less conventional and diffuse mode of conflict.

The “new war” in Sri Lanka in 2008



Anthony Goreau-Ponceaud, 2016, UMR LAM.

According to the 2001 census, Sri Lanka’s population composition by ethnicity/nationality was 74 percent Sinhalese (primarily Buddhist), 18 percent Tamil (primarily Hindu)¹⁹, and 7 percent Muslim.²⁰ Total population was about 20 million. A substantial proportion of the country’s population

19 There are two distinct groups of Tamils in Sri Lanka: the Sri Lankan Tamils and the *Up-country Tamils* who are the descendants of bonded labourers brought from southern India in the 19th century by the British colonial authorities to work on plantations.

20 *Muslim* is considered an ethnic group in Sri Lanka. The Muslim population consists of two separate groups, descendants of pre-colonial Arab traders who speak

lives within two compressed coastal ecosystems, a moist plain in the south and a dry zone in the northeast (figure 1). In Sri Lanka, ethnicity sometimes overlaps with and sometimes diverges from religion: Tamils can be Christian or Hindu, and Christians can be Sinhala or Tamil. Moreover, as mentioned by Goodhand/Klem/Korf ethno-nationalism holds an uneven relationship with religion.²¹

The origins of the civil war have their roots in the power relations during the colonial era of the multi-ethnic state.²² The country has a long history of communal politics operated along these ethnic divides, resulting in several rounds of ethnic violence since 1915.²³ The transformation processes after independence from the British Commonwealth cultivated the tendency toward ethnic polarization between the Sinhalese majority and the Tamil minority in the east and northern parts of the former Ceylon. The broad development leading to war in Sri Lanka can be traced to the profound alteration of the demographic landscape after independence from British colonial rule in 1948. As mentioned by Brun/Lund,²⁴ in the Eastern region in particular, the post-independence government's settlement policies and colonization schemes had involved moving large number of peasant families from the largely Sinhalese Southern Province to areas bordering the Tamil and Muslim dominated Northern and Eastern provinces respectively. More precisely GoSL policies with respect to population and development in Eastern Province have been characterized first by a regime of ethnic transmigration of Sinhalese populations, and second by an effort to segregate all three ethnic groups into segregated zones of

Tamil and live in the north and east of the island (particularly in Ampara and Trincomalee, formerly in Jaffna) and descendants of colonial-era Malay migrants who live on the south coast. Members of both groups also maintain a significant presence in Colombo.

21 Goodhand, J./Klem, B./Korf, B. (2009): Religion, Conflict and Boundary Politics in Sri Lanka. In: *The European Journal of Development Research* 21, 5. 679–698.

22 Spencer (1990).

23 While the ethnic divide traces back to the presence of two separate Sinhalese and Tamil kingdoms at the time of colonization, the first grievances emerged with British policies favouring Tamils in colonial schools and civil service jobs.

24 Brun, C./Lund, R. (2008): Making Home During Crisis: Post-Tsunami Recovery in a Context of War, Sri Lanka. In: *Singapore Journal of Tropical Geography* 29, 3. 274–287.

ethnic concentration.²⁵ Upland areas of Eastern Province have always had a Sinhalese majority population.

In the immediate post-colonial period GoSL engaged in a number of major irrigation and flood control projects on the Maya Oya, Gal Oya, and the Mahaveli Rivers.²⁶ These projects provided preferential water access to upland Sinhalese populations and served as a platform for programs encouraging the systematic migration of Sinhalese populations into cleared jungle and populated Tamil – or Muslim-majority areas.²⁷ When the economic liberalization measures were introduced after 1977²⁸, especially Mahaweli river development and settlement project²⁹, the conflict assumed a new phase. The Mahaweli project, which covers about one-third

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- 25 Routray, B.-P./Singh, A.-K. (2007): The Pawns of War. In: South Asia Intelligence Review 5, 12.
- 26 Peebles, P. (1990): Colonization and Ethnic Conflict in the Dry Zone of Sri Lanka. In: Journal of Asian Studies 49, 1. 30–55.
- 27 Peebles (1990). Korf, B./Engel, S. (2006): On the Incentives of Violence: Greed and Pride in Sri Lanka's Civil War. In: South Asia Economic Journal 7, 1. 99–116. Korf, B. (2005): Rethinking the Greed–Grievance Nexus: Property Rights and the Political Economy of War in Sri Lanka. In: Journal of Peace Research 42, 3. 201–217.
- 28 Economic liberalization – as a politico-economic phenomenon – has been a contributory factor in the escalation of the ethnic conflict since 1977. 1977 stands out as a landmark year in Sri Lanka's post-independence political and economic history. The newly elected government led by Jayewardene's UNP created history by changing the political system of the country toward a centralized power system and introduced economic liberalization policies that were a contrast to import-substitution policies of the Bandaranaike coalition that governed the country from 1970 to 1977. Actually, there are many links between economic liberalization, changes in the governing structure and ethnic conflict. Another thesis to understand the escalation of the conflict is that the combined effect of economic and political changes created grounds for a sense of alienation and counter-nationalism among the Tamils in the north and east. A different position found in the literature is that the conflict itself led to economic disparities between the northeast and the rest of the country rather than economic liberalization per se creating the ethnic conflict.
- 29 In 1963, the Government, with the assistance of the Food and Agriculture Organization and United Nations Development Program, launched the first mapping of the area in preparation for a huge development project in the Mahaweli river basin. It was found that the area had enough water, land and space to cater successfully for a resettlement program of vast magnitude. The economic liberalization policies and programs of the post-1977 governments required an authoritarian regime, which controlled civic and political liberties that Sri Lankan enjoyed for several decades after independence.

of the country's surface area, has played an important part in the country's development policies, as a strategy of solving some of Sri Lanka's demographic and economic problems. In fact, the aims of the Mahaweli Development Project were to achieve national sufficiency in rice, to stimulate production of non-traditional crops, to create income generating activities in agriculture, and to construct a power capacity large enough to enable intensive cultivation through trans-basin irrigation.³⁰ The settlement package was characterized by central planning, implementation, management, and monitoring under the Mahaweli Board. Land in the Mahaweli project was given to three different types of settlers. For several decades the project has been marketed as a way to bring Sinhalese civilization back to the north-central of Sri Lanka. There is no doubt that the ulterior motive behind the colonizing of Tamil areas with Sinhalese peasants was to eventually transform a Tamil majority province into a Sinhala one. The transfer of the Sinhalese population from the south to the predominantly Tamil dry zones under this scheme increased Tamil fears. Of the 75,000 households settled under the Accelerated Mahaweli Development Project (AMDP), only 1.9 percent were Hindu and 2.9 percent were Muslim. Some would argue that the project was a direct cause of the intensified ethnic tensions between the Sinhalese and Tamils in 1983. A consequence of the settlement schemes and movement of people was major shifts in demographic and ethnic composition, creating Sinhalese majority in many constituencies which earlier had been dominated by Muslims or Tamils.³¹ Such population shifts and the accompanying revision of administrative boundaries, and consequently electoral representation, made the Tamils in the Northern and Eastern provinces feel that the Sri Lankan state was treating them as secondary citizens and diminishing their life chances.

The set of conflicts included socio-economic aspects (such as deprivations of land, income, employment and education) and, among other fields related to cultural policies. Through policies related to language³² – most

30 Mahaweli Authority Annual Report <http://www.parliament.lk/uploads/documents/paperspresented/annual-report-mahaweli-authority-2014.pdf>.

31 For a discussion on the dry zone colonization, see Brun, C./Lund, R. (2009): Unpacking the Narrative of a National Housing Policy in Sri Lanka. *Norwegian Journal of Geography* 63, 1. 10-22. And Peebles (1990).

32 Bandarage, A. (2007): *The Separatist Conflict in Sri Lanka: Terrorism, Ethnicity, Political Economy*. New York.

importantly the Sinhala Only Act of 1956³³ –, citizenship, university admission and development, aimed at discarding the colonial heritage and British/Christian domination, the minorities were gradually marginalized. For many Tamil immigrants the destruction of the public library in Jaffna in 1981 was a key moment.³⁴ It was seen as a symbolic expression not only of discrimination against the Tamil culture, but also as a will to erode Tamil civilization. One of the implications of this perception is the importance of Tamil language as a portable cultural asset and the maintenance of Tamil art (such as Bharatanatyam³⁵). This is shown in the establishment of numerous Tamil schools and Tamil culture clubs in the diaspora such as in France.³⁶

The marginalization of the Tamil minority in Sri Lanka led to a radicalization of parts of the Tamil youth. Protests against the *Sinhalesation of the state* were staged mainly by Tamils from the north and developed into a LTTE-led militant struggle for Tamil self-determination. The LTTE claimed a monopoly position in the field of the Tamil resistance movements to fight against the Sri Lankan Armed Forces. The LTTE declares itself a religiously neutral organization, fighting for a secular state. The LTTE has gained a global reputation for its tactical success in overcoming a significant resource and legitimacy gap, for narrowing this gap through a highly globalized network, and for its ruthlessness in leveraging the resources of the Tamil populations and maintaining control. In addition to governing, until recently, large stretches of northeast Sri Lanka, the LTTE has maintained a standing army, intelligence agencies, an elite women's battalion (the *black tigers*), the world's largest non-state navy (the *sea tigers*), and more recently a rudimentary air force that staged a number of audacious attacks on the Sri Lankan armed forces. The so-called Eelam

33 The newly elected government led by Bandaranaike initiated two major processes in 1956: the de-secularization of the State and the statisation of the economy.

34 Knuth, R. (2006): *Burning Books and Levelling Libraries: Extremist Violence and Cultural Destruction*. Westport.

35 Bharatanatyam is not only a means to express devotion but it is also an artistic form enabling the Tamil people in diaspora to narrate the events of civil war. Bharatanatyam is a means of affirming Hindu or Tamil identity and for many Tamil girls, this dance (both in the diaspora as in the homeland) is regarded as an important vehicle for becoming familiar with Hindu myths and traditional Hindu social values. See Goreau-Ponceaud, A. (2011): Tamils in France. In: Rajan, I./ Percot, M. (eds.): *Dynamics of Indian Migration*. New Delhi. 64-90.

36 Goreau-Ponceaud (2014).

Wars were not only a local South Asian affair but particularly a transnational phenomenon with a strong international dimension. An attribute of the Tamil Diaspora is the *long-distance* nationalism of the majority of Tamil immigrants.³⁷ The LTTE received a support from a majority of Tamils in the Diaspora. One of the most significant consequences of Sri Lanka's civil war has been the moving of its Tamil population both internally and internationally leading to the making of a *refugee diaspora*.³⁸ Separated from northern Sri Lanka by the narrow Palk Straits, the southern Indian State of Tamil Nadu has been an important destination for refugees fleeing the long civil conflict between the GoSL and the Liberation Tigers of Tamil Eelam (LTTE). Most arrived from Sri Lanka's war-torn Northern and Eastern Provinces where Tamils form a local majority. Ebbs and flows in numbers have reflected escalations and lulls in hostilities. The majority of Tamil Nadu's 60 million-strong population share a nominal ethnolinguistic identity with the Tamils of Sri Lanka.³⁹ According to Oberoi, "there is a strong bond of kinship between Indian Tamils and their co-ethnics in Sri Lanka, which has been an important motivating factor in India's policy toward this group of refugees."⁴⁰ The common ethnicity between Tamils in India and Sri Lanka, and as such between the

37 Fuglerud (1999).

38 Van Hear, N. (2014): Refugees, Diasporas and Transnationalism. In: Fiddian-Qasmiyeh, E./Loescher, G./Long, K./Sigona, N. (eds.): *The Oxford Handbook of Refugees and Forced Migration Studies*. Oxford. 176-187.

39 As pointed by Demelza Jones, "Trans border ethnic kinship between the Tamils of southern India and Sri Lanka has been evoked in both primordial terms of a common linguistic and religious heritage, and historical mythology, and in the more instrumental sense of a shared political imperative of safeguarding Tamil identity from domineering external forces - in the case of Sri Lanka, from aggressive Sinhalese nationalism, and in Tamil Nadu through opposition to a perceived Hindi-speaking national hegemony." Jones, Demelza (2012): *Our Kith and Kin? Sri Lankan Tamil Refugees and the Ethno-Nationalist Parties of Tamil Nadu*. In: *Nationalism and Ethnic Politics* 18, 4. 431-451.

40 Oberoi, P. (2006): *Exile and Belonging. Refugees and State Policy in South Asia*. New Delhi. 201. If examples presented in the refugee studies literature lead to an expectation that ethnic kinship between refugee and host results in favourable reception and assistance, we should specify in that case that the aftermath of the assassination of former Indian Prime Minister Rajiv Gandhi by an LTTE suicide bomber during a visit to Tamil Nadu in May 1991 is treated in this article as a critical moment, resulting in a shift by Tamil Nadu's political elite from sympathetic consideration of the Sri Lankan Tamil refugees as co-ethnics, towards a hostile, security-focused response.

refugees and the Tamil Nadu host, is emblematic of a wider tendency within the Indian context for refugees to share ethnic kinship with sections of the host population. These refugees have experienced repeated displacement, returning to Sri Lanka during ceasefire periods only to be uprooted again when violence re-escalated.

3. *Impacts of War on Human and Natural Environment*

In 1917, a German psychologist and artillery officer, Kurt Lewin, reflected on the phenomenology of the battlefield. Originally posted on the Western Front, he noticed that the soldiers had a peculiar perception of the landscapes. Those who were engaged in combat saw space differently from civilians who lived safe from danger. The *landscapes of peace* appeared undulating and unlimited, extending as far as the eye could see. The *war landscapes* were ordered and circumscribed, delineated by the signs of violence and destruction.⁴¹ Landscapes take on special significance in times of war, reflecting the mental constructions through which the soldiers apprehend the physical world and conceive the boundaries of belligerency. In the case of the Sri Lankan, the warfare activities have directly or indirectly impacted and modified surrounding landscapes. A plethora of geographers have conducted research on the war in Sri Lanka, the displacement it generated during the conflict,⁴² the geopolitics of aid that shapes the political landscape,⁴³ and the geographies of conflict at the intersection of the conflict and the 2004 tsunami,⁴⁴ particularly in the North and East of the country. Very little has been written about the effects of this war on the environment of the northern and eastern part of the island. Intensification

41 Lewin, K. (1917): *Kriegslandschaft*. In: *Zeitschrift für angewandte Psychologie* 12. 440–447.

42 Brun, C. (2008): *Finding a Place. Local Integration and Protracted Displacement in Sri Lanka*. Colombo. Brun, C./Jazeel, T. (eds.) (2009): *Spatialising Politics: Culture and Geography in Postcolonial Sri Lanka*. Thousand Oaks. Hasbullah, S.-H./Korf, B. (2013): *Muslim Geographies, Violence and the Politics of Community in Eastern Sri Lanka*. In: *Geographical Journal* 179, 1. 32–43.

43 Hyndman, J. (2007): *The Securitization of Fear in Post-Tsunami Sri Lanka*. In: *Annals of the Association of American Geographers* 97, 2. 361–372.

44 Blaikie, P.-M./Lund, R. (eds.) (2011): *The Tsunami of 2004 in Sri Lanka: Impacts and Policy in the Shadow of Civil War*. London. Hyndman, J. (2011): *Dual Disasters: Humanitarian Aid after the 2004 Tsunami*. Sterling.

of the war and large scale military operations of recent years initiated by the Sri Lankan forces have taken place under a media blockade and press censorship, so that the extent of destruction is not known to the wider community nor reported in the media. Furthermore, as yet no analytic framework or paradigm shapes the study of the environmental consequences of war and military operations. We could also add that the environmental effects are significantly different between the winner and the loser. Indeed, despite the end of military conflict, war continues by other means, and its representation encapsulates a nationalist politics of victory that at once vilifies the defeated LTTE *terrorists* and excludes Northern Tamils from the Sri Lankan polis. The LTTE's former hideouts, training facilities, weapons, and vehicles are now tourist sites on display for public viewing.

The environment and its state of health is an essential component of post-war recovery, going hand in hand with the recovery of human population. The 2004 tsunami unfortunately added to environmental destruction, causing high levels of salinity in soils and making the well water in many areas undrinkable. The coastline also changed, with some protective coral barriers vanishing and landmines dangerously dislodged. As the war in the Tamil areas of the island escalated through the mid 1980's, the state of balance that existed in the environmental systems throughout the *Tamil homeland* began to be disrupted. The deterioration continued through the 1990's as the causal factors aggravated and the adverse impacts led to what we could consider as an environmental crisis in the Tamil homeland today. In the Northern part of the island, much of the environment has become compromised due to the protracted fighting which has destroyed both trees and soil. Landmines have prevented farmers from being able to sow and manage their crops; the High Security Zones⁴⁵ have also prevent-

45 The high security zones were basically set-up to protect military camps, strategic installations, and the lifelines of security forces in Jaffna - Kankesanthurai harbour and Palaly airport - from LTTE attack. These zones comprise large chunks of territory surrounding or encompassing strategic military installations. In the Jaffna peninsula there were 18 high security zones (HSZs) covering about 190 km². While the HSZs have by and large served their purpose of securing military installation, they have led to the displacement and economic deprivation of civilians. The displaced persons have to live either with their relatives or at refugee camps. This apart, there are large tracts of agricultural lands that fall under these zones that have deprived many farmers of their livelihood. The HSZ have been progressively released in several stages since 2010.

ed people from either inhabiting or farming their land – something that is a huge stumbling block in the negotiations between the Tamils and the government and causes aggravations for all those who have homes and land in these areas. Soil erosion has also undermined centuries-old farming practices and systems of land maintenance.

4. *The Loss of Palmyra Trees and Forests*

Ecological changes wrought on the landscape of the Jaffna peninsula are widespread. The characteristic and dominating feature of the Jaffna landscape is the Palmyra palm. Standing-up of twenty-five meters high, it is dedicated to the god *Pillaiyar* (or Ganesh) and consequently considered sacred. There used to be extensive Palmyra groves throughout the peninsula and its islands – at the beginning of the war there were an estimated five millions palms: these have been decimated.⁴⁶ The tops of many of these trees have been lopped off, either accidentally by multi-barrel rocket launchers or deliberately to provide sights of the militants in the jungle. The SLA, the militants and the local populace have also extensively cut down the Palmyra, for a variety of reasons: to sell, to make shelters and bunkers, or use as fuel. The making of bunkers, fencing and fortifications and the clearance of landing strips have all led to the loss of a huge numbers of these palms. Between 1956 and 1985, natural high forests decreased from 44 percent to 27 percent of the total land area. Most of the deforested area has been now converted into low productivity grasslands. During the subsequent period of the conflict, both sides fortified themselves by building bunkers, defence lines and camps for soldiers. Trees were cut to build thousands of bunkers and for firewood.

More precisely in the early years of the militancy, a number of camps were established by the militants in the forested area of Vanni (or Wanni).⁴⁷ The Vanni was the centre of the LTTE's de facto state from the mid-1990s until 2009. The cadres of the early militant groups were mostly from the urban area, especially from the Jaffna peninsula. They came to the forests without the familiarity, understanding and knowledge of the natural environment. A consequence of their presence in the forests was

46 Derges, J. (2013): *Ritual and Recovery in Post-Conflict Sri Lanka*. Abingdon.

47 The Vanni is a large area of scrub jungle and forest.

the incursion of domesticated species of plants, particularly food plants. In many cases, they held an urban utilitarian view of the forest. In many areas militant groups were also engaged in illegal logging and marketing of timber as a source of revenue. The dense forests in remote areas, such as Vanni, served as hideouts for insurgent groups, like the LTTE, but they also provide safe haven for refugees fleeing from conflict. Both cases result in over-exploitation of forest resources. The presence of the armed militants in the forests created significant environmental consequences. On the one hand the forest became the home of the militants; it provided them with food, shelter and training ground.⁴⁸ On the other the forest became a hunting ground for the Sri Lankan armed forces; they increasingly mounted military-style operations within the forests in search of the militants. The Sri Lankan army carried out a number of raids and later bombing campaigns in this region. Both caused severe disruptions to the delicate balance that existed in the dry-zone forests and other areas of natural vegetation of the Vanni and the East.⁴⁹ There has also been large scale clearing of mangroves in many areas of the north and the east to deny shelter and protection for the Tamil resistance forces. The clearing of mangroves vegetation, for both firewood and for security reasons, also have an indirect effect on the population sizes of many fish species, prawns and migratory birds; these use the mangroves as breeding grounds.

The use of heavy explosives in aerial bombing, carpet-bombing, naval cannon and shelling destroyed buildings, vegetation, trees, animals, birds.

48 We can also add that according to Saverimuttu: "Apart from the use of forests by the militants, there was also an increase in the illegal logging in the peripheries of the forests of the North and East. The virtual non-existence of forest wardens, the collaboration of some elements of the Sri Lankan armed forces with illegal loggers and the general lack of imposition of the law contributed to this increase. The number of colonies of Sinhala settlers that were established in the forests in the Tamil homeland also increased, especially in the Manal Aaru (Welioya) area, causing further deterioration of forests." Saverimuttu, T./Sriskanarajah, N./Jayapalan, V.I.S. (1999): *Ecological Consequences of the War in the Tamil Homeland in Sri Lanka*. In: Research Report. National Peace Council and Marga Institute. Colombo. 72-78.

49 The only positive impact of war on the environment is largely due to the fact that it tends to keep people, including poachers, out of conflict areas. This is attested by the spectacular bird diversity and numbers recorded from the Giant's Tank in the Vanni region of the northwest Sri Lanka, from where a large number of people fled during the war. But this is an exception rather than the rule, for in most instances war tends to do more damage to wildlife and its habitat.

The use of white phosphorus bombs, as described by the ex-serviceman of the LTTE in my interview conducted both in France and in India,⁵⁰ caused severe injuries. The chemical weapons are characterized by their capacity to affect humans, animals and plants through their toxic properties. Killing, or producing casualties, is of course not the only utility of chemical weapons. Their operational significance includes primary physiological effects of the agents, for example harassment, incapacitation, debilitation, and lethal effects. However, secondary effects of chemical weapons use may include economic damage through for example contamination of land, machinery, or crops, as well as psychological and social effects of terrorizing. The psychological effects are of particular importance in the context of new wars as these can avail a disproportionately greater strategic impact than the primary effects of the actual use. In that way the role of chemical weapons as a propaganda tool is conspicuous in the thick fog of war that engulfed Sri Lanka with claims and counter claims of the use of chemical weapons. We can remark that both sides (GoSL and LTTE) were using the allegations to try and win political points, less certain is whether either side is actually using agents. Following the utilization of white phosphorus bombs, both sides pointed at each other, condemning the use.

In the last three months of the fighting 5,000 people – including 2,000 children – had been killed. With the fall of Kilinochchi in January 2009, which was the administrative capital of the LTTE's de facto state in the Vanni area, the LTTE retreated east; where most of the heaviest fighting took place. The protracted civil war will finally come to its bloody conclusion on the shores of the Nandikadal Lagoon in mid-May 2009.

Damage to soil and wells and the residue of large craters have affected agricultural productivity. The poisoning of the earth with anti-personnel mines and improvised explosive devices (IEDs) in combat territory, the most extreme example of ecological violence, constrained supply routes. Rice production had decreased by one-third, during the war, with 700 hectares left uncultivated for over a decade. For instance, according some reports from GoSL, 11,200 hectares of low land were released from military occupation for rice cultivation in 2009. Diseases associated with stagnant water such as malaria and dengue fever have increased, as has

50 Independent confirmation of the use of these chemical weapons is not possible because journalists were barred from entering the area during the fighting.

cholera and typhoid due to inadequate sanitation in the IDPs camps. Road clearance by the army has been extensive: all the vegetation within a one and a half-kilometer radius of all major roads was cut to prevent surprise attacks. Another exacerbating feature has been the major military offensives that often took place at critical times in the farming cycle: before harvesting or after sowing.

5. *The Wildlife Issue*

Landmines set with the intent to maim rather than kill in order to use up more resource in the care of the injured, are an issue for both human and non-human population that draw severely on the already depleted resources. Both the government forces and the LTTE used mines during the conflict and it is estimated that approximately 482 sq km is contaminated by mines and UXO⁵¹ in the North⁵². Vast areas were mined by the LTTE without any documentation. Finally, the severe flooding in 2011 uncovered landmines from the country's decades long civil war. These unexploded mines are just another problem in a long list of difficulties for some of the poorest people in a country that is still recovering from the civil war.

The free availability of guns during the war and the use of wire snares appear to have had a serious impact on wildlife. Government troops and guerrillas have hunted wildlife for food. Their impact would have been most severe on large mammals with slow reproductive rates, as these are the ones that are likely to disappear first. The spotted deer used to be the most common and numerically abundant large herbivore in the Wilpattu National Park.⁵³ But today, its numbers have declined significantly. Other protected areas (like the Yala East National Park) were also affected by illegal timber extraction and poaching and are still in danger of becoming *empty forests*. Uncontrolled hunting of wildlife not only reduces the popu-

51 Unexploded ordnance (UXO) are explosive weapons (bombs, bullets, shells, grenades, land mines, naval mines, etc.) that did not explode when they were employed and still pose a risk of detonation.

52 For more details see Abhayagunawardena, V. (2011): Vicious killer. In: Frontline 28, 18. 27 August – 9 September.

53 After an interval of almost 18 years, the Wilpattu National Park, one of Sri Lanka's oldest and scenic conservation areas was re-opened by the Minister for the Environment and Natural Resources, Rukman Senanayake on 16 March 2003

lation of the target species, but it caused serious landscapes level changes in habitats and faunal assemblages. While the viewing of wildlife in national parks has been a well-established and accepted form of non-consumptive exploitation, the consumptive use of *non-endangered* wildlife even outside protected areas is a thorny issue that is bound to arouse controversy in such a predominantly Buddhist country as Sri Lanka. Unfortunately, the problem with wildlife is that the people who wish to preserve it are rarely those who have to pay the cost. Wilpattu, on the west coast of the island, was a rebel stronghold during the long 26-year civil war against the Tamil Tigers. Today it is better known as Sri Lanka's largest park and home to leopards, Asian elephants and sloth bears. Development is prohibited in national parks but after peace was declared in May 2009, the government began work on a road right through Wilpattu, known as the *New Mannar Road*. In addition, landmines have also either killed or maimed an unknown number of large mammals including elephants. For instance, according to wildlife veterinarians, as many as 10 elephants are killed or injured each year by landmines. Frequently, the resettlement of human populations results in further developments of land for housing and agriculture, resulting in the displacement of many elephant populations. This increases both the chance of human-elephant clashes and the chance that elephants will be forced to scavenge for food in areas that have not been cleared of landmines because they do not have the same value to human populations as other areas. Resettlement efforts made by human populations must be cognisantly managed to leave enough safe land for elephants to forage, decreasing the tendency for them to wander into dangerous territory or lash out against humans. Plans to circumvent human-elephant conflict in Sri Lanka include the protection and rehabilitation of seven areas for elephants to safely live with an abundance of food and water, and the installation of electric fences by the Department of Wildlife Conservation all of which will keep elephants from wandering into villages and farmland. Further education of the general public as to how to deal with elephants is another important step in human-elephant conflict resolution.

6. *The Peace and its Short-Term Environmental Effects*

The *peace* has different short-term environmental effects. Wars and their aftermaths frequently transform land use and ownership, reshaping *post-*

conflict landscapes through new boundaries, population movements, and conditions of access. Wars and their consequences alter land tenure and uses, often in dramatic ways. People are displaced because of hostilities. Dislocation can totally disrupt land tenure. Lands are also made inaccessible by hostilities, sometimes over long periods due to land mines and unexploded ordnance. As people resettle elsewhere, conflicts sometimes emerge between *uprooted* and *indigenous* populations (like in Puttalam for instance). Identities are frequently key to post-conflict entitlements. Whether linked to nationality, ethnicity, political convictions, kinship, or interpersonal relations, identities are based in part on historical memories. In turn, the memories (and memorial elements) of cultural landscapes have an important place in the politics of identity. I would like to highlight in this fragment the importance of memories in *post-conflict* land issues. Memories are actualized through an embodiment of places of belonging that situate local identities within historicized national territory. Place-based identities are, for example, mobilized through the political currency of historicized *national* heroism. This transcalar claim, between local and national historical narratives, involves spaces defining *local* identities which are re-inscribed within the *national* territory and history for the purpose of resisting *global* land-based economic projects. In that way, in Sri Lanka, since the war is ended, we can assist at new forms of mobility, new forms of travel, distinct from the military manoeuvres and refugee displacements of the past. These new forms of mobility are encapsulated in the expression *warzone tourism*. The opening up of transportation networks after the war (like the A9 Highway) saw tourism extending geographically and intensifying these attributes on ethnically differentiated sites. There is a persistence of wartime hostilities within emergent post-war *dark tourism* practices, which have provoked conflicts over heritage. The tourists to warzones visit sites of religious pilgrimage as well as battle-scarred sites. Sites of pilgrimage in Sinhala culture are not only religious sites, but are also infused with an attachment to location, permeated with a religious and ethno-nationalist imagination. War sites attain a similar significance in the imagination of the people, as sites around which myths and legends about war and its aftermath are created, recreated and imagined. The people who experience this warzone tourism carry a past with them, emanate a certain emotions and have connections that are internalized and reproduced in order to make sense of their worlds in the present moment. This process of recreating or re-conceptualizing the past, deleting or glossing over violence associated with war, as *landscaping*,

implying a sense of transformation or displacement. Post-war efforts at reconciliation are marred both by military triumphalism and top-down policies criticized by Tamil lobbies and humanitarian groups. The continued military presence in the island's north and east, and economic penetration by southern, Sinhalese investors, businesses and contractors, dilute the region's Tamil ethnic insularity. Wartime destruction, depopulation and indigence magnify social inequities giving majoritarian market reform an ideological and political advantage. Tamil residents – displaced and impoverished by war, and smarting from the triumphalism of the Sinhalese – have been distanced from democratic discourses, internally due to militancy and externally due to Sinhala hegemony. They included IDPs and refugees from camps in India returning home. Social fragmentation diminished their capacity for collective civic responsibility. Wartime attrition of democracy, militant and military administration has eroded frameworks of civility. The Tamil community is consequently vulnerable to state hegemony, marketization and tourism.

The decades-long protracted civil war has killed tens of thousands of people and displaced an estimated one million Sri Lankan Tamils abroad. The LTTE may have been officially defeated in Sri Lanka, but artefacts of the LTTE's legacy as a *terrorist* organization have become tourist sites actively cultivated by the Sri Lankan government throughout the Vanni in northern Sri Lanka. The Vanni was the centre of the LTTE's de facto state from the mid-1990s until 2009. This tourism in a recent war zone is a way to militarize civilian space during peacetime. The ancestral home of LTTE leader Prabhakaran at Valvettithurai, his bunker at Mullaitivu, and the LTTE arsenal captured in that district attracted large numbers of Sinhala visitors. The ancestral home and bunker were later demolished while the arsenal has been gathered in an open-air museum for public viewing. This war museum in Puthukkudiyiruppu,⁵⁴ memories of the Tamil Tigers are still publicly present in Sri Lanka, but they are produced by the victor in

54 With the fall of Kilinochchi in January 2009, the LTTE retreated east; along with hundreds of thousands of civilians, to the towns of Puthukkudiyiruppu (PTK), Putumatalan, and Mullaitivu where most of the heaviest fighting took place. The protracted civil war would finally come to its bloody conclusion on the shores of the Nandikadal Lagoon in mid-May 2009. While Kilinochchi was the administrative capital of the LTTE's de facto state in the Vanni area at the end of the war, Prabhakaran lived in a series of houses closer to Visuvamadu and PTK. These bunkers have been converted into army camps as well as tourist sites.

particular ways: dehumanized and militarized, with the LTTE as a potential and lurking threat that sustains the Sinhala nationalist project of ongoing militarization. Through its selective remembering of the Tigers and dead Tamil civilians, the GoSL stokes a triumphalist Sinhala nationalism that reproduces the Tamil Tigers as a future potential threat, and in so doing, provides grounds for ongoing militarization of civilian spaces by the state and marginalization of Tamils and other minority groups in the country who are represented as latent threats.

In the same time, several scholars have highlighted increasing state hegemony via militarization and Sinhalisation during the final stages of the war, and the resultant exacerbation of ethnic tensions.⁵⁵ Six years after the end of Sri Lanka's civil war, Tamil lands, particularly in the north of the island, remain under military occupation. This military occupation process is not about ensuring security. Sinhala army personnel and private investors and contractors engaged in the reconstruction effort form a restless backdrop to resettlement activities, their motivations often subservient to the government. Rebuilding the roads, infrastructure and resettlement falls under the Ministry of Defence and Urban Development which uses army labour.

The army has expanded non-military activities and is engaged in large-scale property development, construction projects, and business ventures such as travel agencies, farming, holiday resorts, restaurants, and innumerable cafes. The army officially runs luxury resorts and golf courses that have been erected on land seized from now-internally displaced peoples. Over the past six years, the process of Sinhalisation has intensified with an aggressive government-led effort that systematically replaces Tamil culture and history with victory monuments dedicated to Sinhalese hegemony and Buddhist religion on the ruins of the Tamil homeland. A similar ethnicisation process is occurring in the eastern region, with the building of hostels and other construction work controlled by the dominant ethnic group taking place in the buffer zone, while people who used to live there are being displaced to new settlements in the far interior. This has created increasing political and ethnic tension among the coastal population in a

55 For more information about this topic see Ismail, Q. (2005): *Abiding by Sri Lanka: On Peace, Place and Postcoloniality*. Minneapolis. Ismail, Q./Jeganathan, P. (2009): *Unmaking the Nation: The Politics of Identity and History in Modern Sri Lanka*. New York. De Mel, N. (2007): *Militarising Sri Lanka: Popular Culture, Memory and Narrative in the Armed Conflict*. New Delhi.

struggle for access to land in the densely populated Muslim and Tamil dominated areas. Since the end of the civil war, Sri Lanka has seen a big increase in tourists and marketed itself as an eco-tourism destination leading to new ethnic tensions.

7. Impact of Natural Events on War: the Tsunami's Case Study

When the Indian Ocean tsunami hit the coasts of Sri Lanka on 26 December 2004, killing more than 36,000 people, and injured 21,000 in a matter of minutes and, in the longer term displaced between 450,000 and 516,000, and destroyed or damaged nearly 100,000 houses and 200 educational facilities (according to the GoSL), the country had already experienced more than two decades of violent conflict. The disasters of the tsunami and civil war, although very different in their genesis and outcomes, also have similarities. They are both slow in unfolding. Even the tsunami, a natural event of a few minutes, became a disaster only as a result of the emergence and reproduction of vulnerability over a long period before its initial devastating impact. Vulnerability is a much debated term but a widely accepted definition is: “vulnerability is a set of characteristics of a person or a group of persons in terms of their capacity to anticipate, cope with, resist and recover from the impact of natural hazards.”⁵⁶ The term can be reworked to relate war where the impact is usually more spatially widespread, more long lasting and multivalent than a single environmental event such as a tsunami. Therefore, in long war, as in Sri Lanka, people of different ethnicities, wealth, age, and gender are constantly trying to anticipate, cope with, resist, and recover from the impact of an ebbing and flowing war. Recovery is defined as the broader process of people deploying their capabilities in a post-crisis situation. Post-tsunami reconstruction like the post-war reconstruction does not only concern buildings, roads and infrastructure, but also rebuilding communities, community networks and livelihoods, and re-enabling a huge number of displaced people suddenly made destitute.⁵⁷

Vulnerability emerges through a number of socio-economic and political forces and often pushes economically and socially marginal people in-

56 Blaikie, P.-M./Cannon, T/Davis, I./Wisner, B (1994): *At Risk: People's Vulnerability and Disasters*. London.

57 De Mel (2007).

to marginal places, which may be hazardous in terms of environmental conditions and discrete events. Thus the war and the tsunami as the threat to come have intertwined social and political antecedents. On the one hand the war has created vulnerabilities through death and disappearance of breadwinners, displacement of agricultural activities, destruction of industrial plant, and thereby employment opportunities. All this in turn has rendered those in the coastal zone especially vulnerable to the effects of the tsunami. Also, there has been a tendency for those with less access to livelihood opportunities and political support during hostilities (typically some Muslims and Tamils) to be displaced towards the poorer agricultural land near the coast. On the other hand this Tsunami compounded the already complicated sequence of political struggles and violent incidents in the eastern Sri Lanka where Muslims and Tamils live in a jigsaw of coastal settlements.

The tsunami disaster of 26 December 2004 is historically one of the most extensive disasters to have affected Sri Lanka. But it was not the first. There was a cyclone which affected Sri Lanka in 1978, and hit 20 percent of the country and affected 800,000 to 1 million people, causing deaths, injuries and severe floods.⁵⁸ However the impacts of the tsunami were therefore enmeshed in a situation where land was already a bitter contested and ethnically-charged issue. Due to the severe tsunami devastation in coastal zone in Sri Lanka; considering future tsunami and disaster risk, the GoSL declared a 100/200 meters strip of land as a *no build zone* along the coastal belt. The Cabinet approved in January 2005 and issued a notification of a *Coastal conservation (buffer) zone* established in order to better safeguard the lives of the coastal population and to protect the coastal environment from any future natural disaster. The dramatic dispossession caused by the tsunami brought to light the endemic displacement of so many members of the Tamil and Muslim communities who had been forced to move to coastal locations to escape the war. Indeed, the buffer zone declared by the GoSL disallowed rebuilding houses within a 200m zone along the east coast and discriminated heavily against Tamils and Muslims who had fled the war and settled in the less fertile and less sought-after land close to the coast, which then bore the brunt of the tsunami.

58 Lewis, J. (1981): The Sri Lanka Cyclone 1978: Socio-Economic Analysis of Housing Destruction. In: Marga 6, 2. 1-33.

There are some endemic problems in the recovery process after the December 2004 tsunami. In particular the recovery work has been embedded in the conflict and was unable to *build back better*. A massive reconstruction and resettlement effort was begun and the slogan *building back better* and *rebuilt communities* became prominent in the discourse on post-tsunami.⁵⁹ In this process, the inflow of foreign aid had important effects on political relations and governance structures in the East. Furthermore we could say that in the case of Sri Lanka, aid delivery cannot be made apolitical. As Uyangoda sums up: “the post-tsunami recovery has been intensively politicized in a context of the unresolved ethnic conflict and an incomplete, installed peace process.”⁶⁰ Displacement has played a major role in the discourse on the civil war in Sri Lanka. It is estimated that more than one-tenth of Sri Lanka’s population has been displaced by the war. The people of the north and the east have paid a particularly heavy price, and many have experienced multiple and protracted displacements during their lifetime. By linking the war and a natural disaster as the tsunami, we foreground both disasters as political and make visible the work of militarization as the key paradigm of governance in present-day in Sri Lanka. The pre-existing uneven power relations between ethnic groups and geographical areas were clearly manifest in the politicized and very unevenly distributed quantity and quality of assistance between the war-affected communities in the predominantly Tamil and Muslim Northern and Eastern provinces of the country and the mostly Sinhalese South. The fact that vulnerable and marginalized people formed the majority of those most severely affected by the tsunami indicated that the disaster itself was not a natural event.⁶¹

Consequently, reconstruction and longer-term development challenges overlap with the dynamics of conflict in the Northern and Eastern provinces. As mentioned by Brun/Lund “while we need to understand and/or redress how disaster and war alter communities and people’s capacities to make changes themselves, we also need to recognize how recovery from disasters and war reinforce power relations between communities

59 Benadusi, M. (2013): Cultiver des communautés après une catastrophe. Déferlement de générosité sur les côtes du Sri Lanka. In: Revet, S./Langumier, J. (eds.): Le gouvernement des catastrophes. Paris. 103-146.

60 Uyangoda, J. (2005): Ethnic Conflict, the State and the Tsunami Disaster in Sri Lanka. *Inter-Asia Cultural Studies* 6, 3. 341-352. 341.

61 De Mel, (2007).

and differentially affect positionalities within the communities.”⁶² Although natural disasters are in a sense *non-discriminatory*, war-affected countries have higher preexisting levels of vulnerability, whilst the distribution of vulnerability tends to be geographically concentrated in the areas most affected by violence.

8. *Conclusion: Environment as a Quasi-Personage?*

The concept of *new wars* was useful in the context of this paper, as it captures the changed nature of the conflict in its many facets. New wars are conceptualized as conflicts of the globalized age in which organized violence is perpetrated between networks of regular armed forces and organized criminal or terrorist groups. In many aspects there have been profound changes in the nature of conflict and the conceptualization of security over the last decades. Whilst irregular warfare is not new and doctrines of counterinsurgency and counter terrorism have deep historical roots, there is a shift in nature and character of warfare from state centric conflicts of the nineteenth and twentieth century, fought by regular armed forces to the messier conflicts, asymmetrical wars, terrorism and intra-state violence fought in the twenty-first century. This shift is articulated in the concept of *new wars* developed by Kaldor.⁶³ If in the *old wars* the territorial gain was achieved through military means, by contrast in *new wars* violence is directed against civilians to establish control over territories for purposes of access to state or political power for certain groups that are defined by ethnic and religious identities rather than nationality per se. In this new context of warfare the nature of organized violence has changed and blurred previously clearer distinctions between war, terrorism, organized crime and large-scale violation of human rights. The Sri Lankan case study reveals that causes of conflict are multiple and interlinked, and develops in a non-linear fashion over the course of conflict. Conflict dynamics in Sri Lanka were increasingly found to be contingent upon contextual factors, rather than on root causes. Furthermore during almost three decades the war becomes the normal context for the unfolding of social life. The Sri Lankan civil war was a protracted violent conflict which

62 Brun/Lund (2008), 277.

63 Kaldor, M. (2012): *New and Old Wars: Organized Violence in a Global Era*. Cambridge.

creates multiple trajectories of threat and opportunity over authorities (GoSL, LTTE, caste system, religious affinities and so on) and makes these highly malleable in space and time leading to the creation of warscapes. Individuals in warscapes are often not just *combatants*, *civilians*, or *victims*, but each pursue different multi-dimensional agendas and life projects which cannot be easily labeled as war or not war-related, as participation or non-participation.

Aims and targets between old and new wars have changed. This change has a significant impact on environment. In this paper we tried to conceive the environment as a sum of relations and interactions. It refers to the complex relationships of interdependence between man, societies and the physical, chemical, and biotic components of an anthropomorphised or artificialized nature. The environment is generally considered as an encompassing entity on which the encompassed has a grip. It is therefore radically distinguished from the other two fundamental components of the social world: the actor and the object. Yet, the environment can be interpreted as almost a character with potential for action. That's what I've tried to demonstrate in my paper. Environment is part of these warscapes and as a quasi-personage. In this paper we saw progressively how land becomes part of larger patterns of violent contestation. Some of these violent contestations were revealed and accentuated through *natural* events such as the 2004 tsunami.

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Political Conflict and its Impact on Environment – A Study of Kashmir of India

Babu Rangaiah / N. K. Kumaresan Raja

Armed conflicts and degradation of environment have always been inter-related. The experiences of such conflicts in South and Southeast Asia have mostly lead to a common conclusion. As an outcome of the afforestation of north eastern part of Sri Lanka, the clearing of the woods paved way for a significant victory for the Government of Sri Lanka to defeat the LTTE, the armed rebels who were known for their guerilla warfare. There are references from the war of Vietnam that armed conflict has a negative bearing on the maintenance of vegetation and consequently impacting upon the environment of the war zone. In the case of Kashmir, the widely known dispute between the State of India, State of Pakistan and the insurgent armed groups, the political situation remains very tense for the past several decades. It must be also mentioned that the thick forest cover of Kashmir paves a natural asylum of armed rebels. Keeping this in view, a study was conducted on the youth of Kashmir on various aspect of the armed conflict including their assessment and awareness on environment, which has given a never before vision of youth in trauma on environment.

Kashmir's extravagant beauty used to draw millions and millions of people towards its enchanting exquisite that is also known as the *last Shangrila* and *paradise on the earth*. The land of Kashmir lies on the ranges of Himalayan Mountain with its wonderful and marvelous lakes, gardens, white cold deserts. Kashmir unfortunately has become disputed with the partition of India and Pakistan in 1947. The conflict in Kashmir valley has resulted in destruction of the life, living, culture and environment, as both India and Pakistan claims the control of the land that has already seen two wars between India and Pakistan. A part of land has been governed by Pakistan and China in the name of Pakistan Occupied Kash-

mir.¹ Kashmir valley witnesses proxy war and terrorist activities in the name of a Liberation movement that was started by Kashmir militants and has put the life of about eight million people in danger. According to reports about 44,638 people have being killed from 1988 to 2018 including civilians, security forces and militants, and thousands of people being kidnapped and missing.

Kashmir conflict has negative bearing on the common man of the land, who experiences regular traumatic events and its consequences. On the other hand, Kashmir valley has witnessed the degradation of environment over the years, which will have negative impact on the overall aspects of human ecology. The present paper attempts to expound the situation in Kashmir both for human experience and impact on environment as a result of political conflict as on the one hand it affects human capital and on the other it has direct as well as indirect effect on the environment. Armed conflict can have negative impact on both environment and human well-being.²

People in Kashmir have been found to experience trauma as a result of exposure to conflict.³ About 46.9 percent youth was exposed to two or three traumatic events; about 28.6 percent found to be exposed to four or more conflict-related events. Most of the people reported that the predominant traumatic incidents have been prolonged curfew, beating or humiliation of a family member, or a friend who goes missing. A small percentage (2.2 percent) of youth reported witnessing fight between militants and security forces.⁴ Studies have also found that people experience mental health issues and psychological distress like depression, anxiety, and post-traumatic stress disorder that affects daily living of the people as they do not feel safe and they also suffer from socio-economic issues.⁵ The Insti-

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- 1 De Jong, K./Ford, N./Kam, S. (2008a): Conflict in the Indian Kashmir Valley I: Exposure to Violence. In: *Conflict and Health* 2, 10. DOI: 10.1186/1752-1505-2-10.
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 - 2 Saundry, P. (2008): Environmental and Socioeconomic Impacts of Armed Conflict in Africa. In: Cleveland, Cutler J. (eds.): *Encyclopedia of Earth*. Washington.
 - 3 Bhat, Rayees Mohammad/Rangaiah, B. (2015): The Impact of Conflict Exposure and Social Support on Posttraumatic Growth among the Young Adults in Kashmir. In: *Cogent Psychology* 2, 1. DOI: 10.1080/23311908.2014.1000077.
 - 4 Bhat/Rangaiah (2015).
 - 5 De Jong/Ford/Kam (2008a). De Jong/Kam/Ford (2008b).

tute of Mental Health and Neurosciences (IMHANS), has observed increased cases of mental health issues.⁶

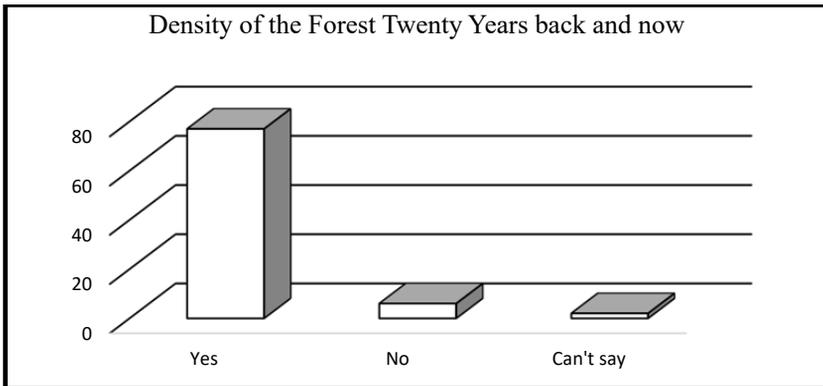
Climate change and environmental degradation is a global phenomenon. Nations are coming together to protect environment. However, sometimes it is not possible to regulate the environment degradation, particularly, when there are armed conflicts. The armed forces and insurgents use and misuse the environment for their own purposes to destroy the other or even to venture peace. For example, in Sri Lanka deforestation was used as the method to end the conflict and to defeat the militants. The history has shown that as a tactic, the devastation of natural environment can destroy the enemy. However, in the modern world, the very presence of armed conflict can destroy the natural environment in some or the other manner. This scenario would best explain the case of Kashmir. The very identify of Kashmir is its scenic beauty and green vegetation. Tourism is the backbone of Kashmir Economy. Tourism and Environment in Kashmir has been complimenting each other. During the course of armed conflict that attained peak during the late 1990's, the environment degradation has been visibly seen. Even today, despite the sporadic peace that enables the operation of Tourism Industry in Kashmir, the consequences of the armed conflict, unplanned and unregulated rent seeking nature of contemporary tourism have only further ravaged the environment in Kashmir. A classic case of the inverse correlation between war and tourism potential could be arrived in the case of Kashmir with scientific identification of the indicators.

The present study used a semi-structured questionnaire to collect the data regarding the deforestation in Kashmir and rehabilitation. For the present study the data was collected from the 85 students of Kashmir studying in masters in universities in southern India. The results are presented in the following sections.

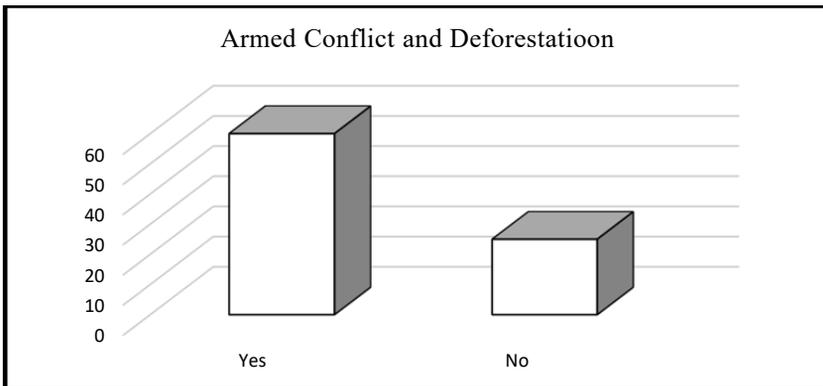
The students were probed to understand the environmental situation in Kashmir. The students were asked whether there was any difference in the density of forest in their dwelling place twenty years back and now. The results are graphically depicted and it shows that clearly there was a huge difference now and prior to twenty years back in the density of the forest area, about 90 percent of the respondents have responded *yes* there is a

6 Hassan, A./Shafi, A. (2012): Attitude Towards Mental Illness in Kashmir. In: International NGO Journal 7, 73–7. DOI: 10.5897/INGOJ12.019.

huge difference and only about 0.07 percent say there is *no* marked difference in the density of the forest. Presently, at most of the places forest looks very thin losing its yesteryears beauty and vigor.

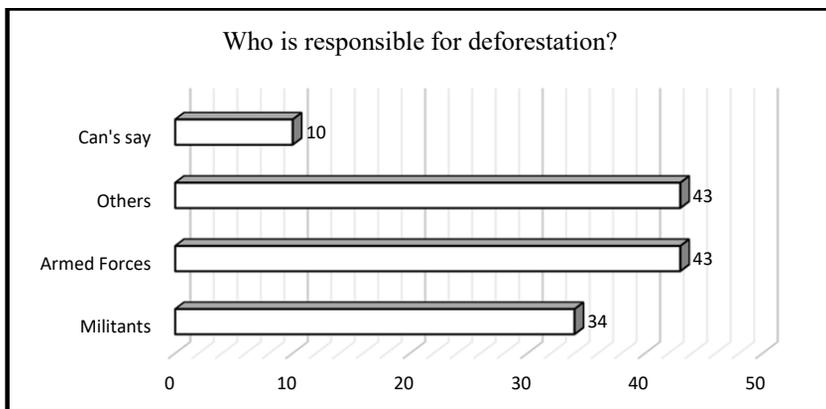


The students were inquired whether they thought that both armed conflict and deforestation has any relationship. And results show that about 71 percent of the respondents said *yes* whereas about 29 percent said *no*. It must be stated that the respondents who answered affirmatively are those who dwell in rural parts, directly dependent on the forest resources who have experienced the impact of the armed conflict over environment.

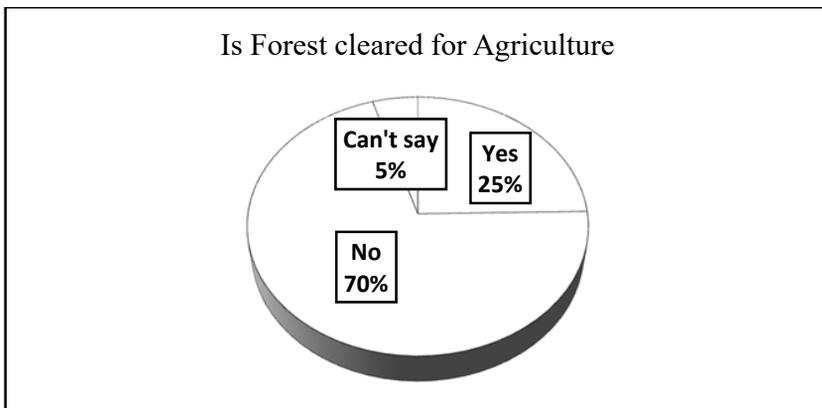


The students were inquired as who they think was responsible for the deforestation. About 40 percent of the respondents opined that militants are

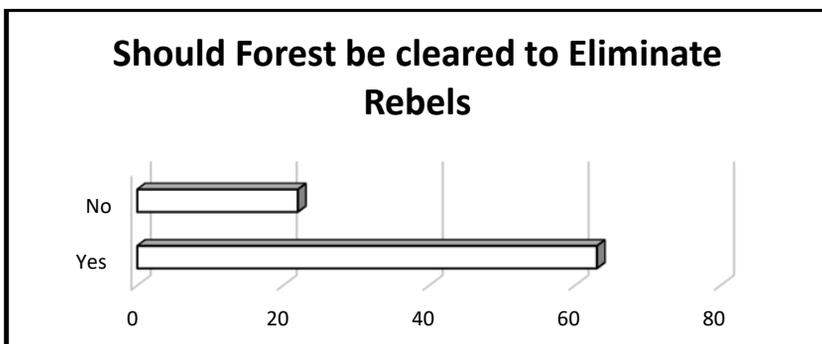
responsible for the deforestation; when 51 percent of the students said it is because of the armed forces and others like due to tourism and other un-regulated activities. However, about 11 percent of the students did not have any opinion for this query. The fact remains that deforestation and armed conflicts are correlated, and armed conflicts does have negative impact on environment is validated.



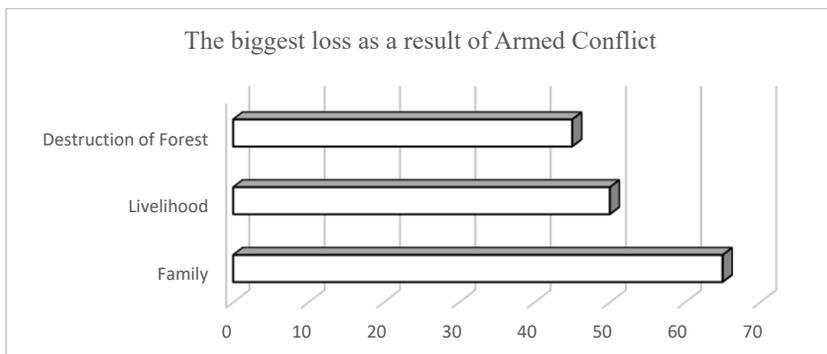
The respondents were questioned whether they agree with forest being cleared for agriculture. Interestingly, about 70 percent youth said *no* whereas 25 percent students said *yes* and 5 percent students were undecided. On a deeper validation of the response, it is found that the students who hail from semi urban areas convey the unplanned urbanisation as the principle factor for the reduction of forest area, yet further investigation on this is outside the scope of this paper. However, it can be understood that the relative degree of impact of armed conflict on the alteration of natural landscape is significantly higher because of urbanisation.



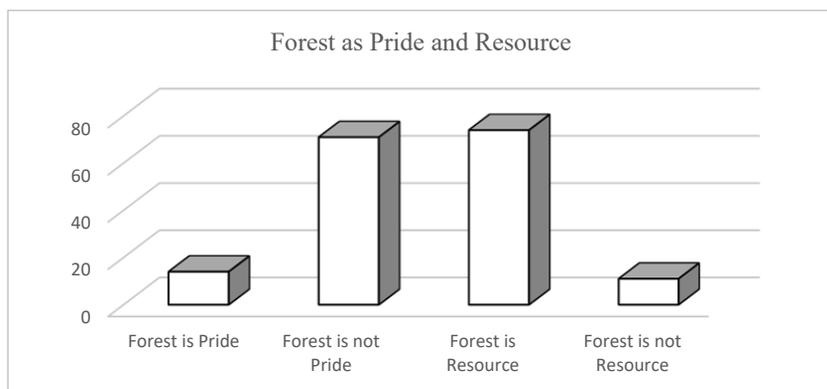
The students were probed to know whether they perceive that the forest be removed to facilitate to eliminate the rebels, around 74 percent of the students said *no* when 26 percent students said *yes*. This again could be stated as the reply was affirmative with the respondents hailing from the bordering districts of the *Line of Actual Control* that demarcates the Indian Administered Kashmir.



The students were explored to know what the biggest loss due to armed conflict was. The majority of the respondents said it is the loss of the family (76 percent), followed by livelihood (59 percent) and destruction of forest (53 percent). Very interestingly the gender of the respondents who perceived the destruction of forests largely is female.



The respondents were asked to know whether forest was their pride or resource. The large number of the respondents said forest was their resource (*yes* 74 percent; *no* 11 percent) rather than their pride (*yes* 16 percent; *no* 84 percent). Incidentally those who hail from rural parts of Kashmir where they make use of forest resources have replied as their resource. Those from urban areas of Kashmir have disagreed it is a pride. At this point, it is imperative that the socio political context in which urban youth, his mobility within other parts of Kashmir during his process of socialisation matters.



The respondents were probed to know who was responsible to plant trees and majority of the students (70 percent) said it was the duty of the government to plant the trees. However, about 35 percent of the respondents said it was the duty of community and about 23 percent said it was the du-

ty of an individual to plant trees. The reliance on State apparatus by a majority of the respondents indicates the belief the people on the civilian establishment in Kashmir. The initiative of the Social Forestry Department of Jammu and Kashmir since 1982 seems to have positive effects in this regard.⁷ The respective table indicates the details of targets and achievements, however, in the absence of independent verification the data could not be validated by the researchers.



Trauma for humans *per se* has never been the loss of life and property alone but the loss of the ecosystem, which the Vietnam War for the first time depicted to the world. We live in the era where obliteration of the nature and environment has itself developed as a method of war, which in the context of the modern sovereignty gets legitimised. Emerging discourses on non-conventional security and the drive for emergent protection of environment converge on areas of armed conflict. Emerging facets of human security includes the protection of natural environment which is linked to the foundational aspect of our security needs. The living habitat of humans is conventionally understood within the framework of national and political boundary ignoring the natural landscape that pre-existed political formations. Across South Asia the natural disasters like tsunami have reinforced that nature never accepts political boundaries. It is nature that nurtures us humans and other living organisms or species. Hence

7 <http://www.jksocialforestry.nic.in/Plan-Non-plan-2016-17.pdf>.

since nature is solely not humans but the biodiversity that envelops human existence, it is rational that we recognise that every species have a basic right to exist, and humans need to take cognizance of the reality that only that part of environment that could sustainably support human life support system could be harnessed and subjected to anthropogenic consumption. In the name of sovereignty and legitimacy the modern nations cannot justify warfare and military exercises at the cost of environmental destruction. The findings of this paper underscores is, that destruction of nature and natural resources in the name of armed conflict impacts irreversible changes on the inhabitants adversely and thus the opportunity of any form of perpetual peace becomes null and void. It is a well-accepted reality that all wars are not waged aimed at controlling natural resources, but the end result of all wars will be the decimation of natural habitat which inevitably leads to resource depletion and irreversible degradation of environment. This precarious situation could immerse any region into very powerful vicious circle of underdevelopment, poverty, political resentment, political alienation and apathy leading to further escalation of war nerves and lead to further catastrophe.

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Livelihood and Environmental Conflicts: An Analysis of Development and Protests in Odisha, India

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According to Global Environmental Justice Atlas, there are more environmental conflicts in India than any other country in the world. Most of the environmental clashes are over water and extractive resource/industry. In this context, the paper is presenting a brief profile of tribal resistance over bauxite mining and aluminium industry in Lanjigarh Block of Odisha. Drawing from extensive fieldwork the paper has analysed the impact of the mining project on lives and livelihood of the native population. It has also examined the participation politics of different communities, organizations as well as mainstream political parties in the movement against the mining project.

1. Introduction

Resistance of the poor and marginalized communities for environment and livelihood is not very new. But when this struggle for protection of environment and livelihood of the small communities sets an important precedent in a democracy, it becomes very significant to analyze. The Supreme Court's decision to go for an environmental referendum in two tribal districts of Odisha, India, on the basis of local communities religious and cultural rights over their habitation has put an end to a much hyped and long environmental conflict in the state of Odisha.¹ In the village council meetings with the presence of representatives of the Supreme Court of India, 12 *Gram Sabhas* (village councils) unanimously rejected the Vedanta Aluminium and State-owned mining corporations' plan of bauxite mining in the Niyamgiri Hill. This people's verdict has set a historic and significant precedent, which could also determine the course of similar environmental

1 Kalahandi and Rayagada district of Odisha. These two southern districts of Odisha are mineral rich and 80 percent of Bauxite found in these two districts.

conflicts in other tribal areas in Odisha and other parts of India. In this context, the paper is presenting a brief profile of tribal resistance over bauxite mining and aluminium industry with special reference to conflict over Niyamgiri Hill of Kalahandi district, Odisha. It has also examined and analysed the participation politics of different communities, community based organizations, and mainstream political parties in the movement against the mining project.

2. *Industrial Development and Environmental Conflicts in Odisha*

Odisha, the ancient land of temples is one of the most resource-rich States in the country. It is predominantly an agricultural state where nearly seventy percent of the working population depends on agriculture. The State also is endowed with vast natural resources, mineral, marine, agricultural and forest wealth. The recorded forest cover in the State is 58,136 km², which constitutes around 34.9 percent of the State's geographical area.² These forest regions of the state are home to the different tribal communities, which constitute 22 percent of the state population. There are 62 different tribal communities present there in the state and out of them 13 communities are considered Primitive Tribal Groups (PTGs) and were assigned special treatments. Almost 44.2 percent of the total land in Odisha has been declared as *Scheduled Area*.³ Forests serve as major livelihood

2 Official forest statistics, Government of Odisha, 2017.

3 Padhi, S./Panigrahi, N. (2011): Tribal Movements and Livelihoods: Recent Developments in Orissa. New Delhi. Mishra, B./Mishra, S. (2014): Mining and Industrialisation. New Delhi. Mishra, P. P./Pujari A. K. (2008): Impact of Mining on Agricultural Productivity: A Case Study of the Indian State of Orissa. In: South Asia Economic Journal 9. 337-350. Mishra, R. N./Maitra, A. (2007): Industrialization and Protest Movements in Orissa. New Delhi. Das, S. P. (2014a): Lanjigarh Mei 'Niyam Raja' Ko Leke Sangharsh. *Bhartiya Samaj Shastra Samikhya* 1. 121-126. Scheduled Areas is a provision of the Constitution of India in which some areas are declared under the Fifth and Sixth Schedule of the Constitution. The basic thrust of the Fifth schedule of the constitution of India is the protection of cultural distinctiveness of the tribal communities. It also deals with the control and administration of the Schedule Areas. It provides protection to the tribal communities on account of their economic disadvantages so that they could maintain their tribal identity without any coercion or exploitation. The total area of the Scheduled Areas of the state contains almost 70 percent of Orissa's forest areas, even though they form only 44 percent of the state area.

resources for tribals and people living in forest fringes as they provide various kinds of Non Timber Forest Produce (NTFPs). These small communities living in and around the forest areas follow a traditional livelihood system, which is based on the shifting cultivation and collection of edible forest produce. In social terms, the traditional livelihood system was based on customary, usufructuary rights of tribal communities over land and forests. The survival of tribal communities critically depends on land and forest resources.⁴

After independence industrial development and dam construction was one of important part of national development. The state of Odisha has built some major mega hydroelectric cum irrigation projects like Hirakud (1948), Balimela (1963), Machhkund (1949), Upper Kolab (1978), Indravati (1978), Mandira, Rengali (1973) and Subarnarekha. Apart from that there are mineral-based public industries like Rourkela Steel Plant (1950), National Aluminium Company at Angul (1985), Hindustan Aeronautics Ltd. (1962). Furthermore, the iron mining in Keonjhar, Mayurbhanj and Sundergarh districts, the bauxite mining projects at Damanjodi and Panchaput Mali of Koraput district by NALCO (1986) etc., were also done to supply the raw materials to these mineral based industries and projects on cement, dolomite and limestone were also established in that phase of industrialization.

A rough calculation shows that, since Independence, Orissa has set up 190 such projects, which has deforested 24,124 hectares of forestland, the basic source of livelihood of the tribal people. Estimates of the magnitude of human population displacement in Orissa resulting from the establishment of various mega-projects during 1951–95 show that different kinds of industrial development projects (dam, mining, big industries, sanctuaries) have displaced around 546,794 families, out of which only 192,840 (35.26 percent) have been rehabilitated.⁵

Diversion of forest and establishment of public and private mega-projects in tribal regions has encroached on tribal people's native lands

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- 4 Padhi/Panigrahi (2011). Shiva, V. (1991): *Ecology and the Politics of Survival: Conflict over Natural Resources in India*. New Delhi. Beck, T./Ghosh, M. (2000): *Common Property Resources and the Poor: Finding from the West Bangle*. In: *Economic and Political Weekly XXXV*. 147-153.
 - 5 Mohapatra, L. K. (1999): *Tribals' Rights to Land and the State in Orissa*. In: Behura, D. K./Pfeffer, G. (eds.): *Contemporary Society Tribal Studies*. New Delhi. Padhi/Panigrahi (2011).

and thereby displaced them. All these projects have had an immense impact on tribal livelihood, community life and political structures, as it has been documented through several empirical studies in the state.⁶ These studies show that, tribals once dependent upon sustainable forest and primitive agricultural economy and unaccustomed to the culture of wage of work now hire themselves out as daily wageworkers. When they fail to get any work, they move to the city as seasonal migrants to work either as contract labours or informal sector workers as coolies. It shows that the depletion of forest and other self-sustaining natural resources tribals and other weaker sections of the population in the hinterland have been converted into unskilled wageworkers.

Available data shows that different industrial development projects have displaced more families in the tribal areas and it still continues till date.⁷ Lack of recent statistics might be one of the limitations of this argument but if we look at the magnitude of the industrialization in Odisha especially after the liberalization of Indian economy we can see that the state has become a major destination of steel plants, thermal power plants, alumina/aluminium projects and oil refineries. The project/proposals in hand include 13 steel plants, half a dozen large power projects, three alumina/aluminum projects and two green field oil refineries, most of them by major national and international industrial enterprises. In 2005, the state government has signed as many as 43 memoranda of understanding with various corporate bodies for setting up of their industrial units at an investment of Rupees 1, 60,000 crore.⁸ These projects are also planned to establish in the areas, which are mainly rich in forest and minerals to facilitate the developers and minimize the difficulties of getting raw materials from a distance places. Therefore, in recent years the state of Odisha has experienced several environmental conflicts and movements in these backward regions of the state.

6 See Patnaik (2000); Dash/Samal (2008); Pattanayak (2010); Sahu (2008a); Lahiri-dutt (2006); Mishra/Mishra (2014); Mishra/Pujari (2008); Das (2014a).

7 See Padhi/Panigrahi (2011); Mohapatra (1999); Swain/Panigrahi (1999); Das (2014b); Das (2014a).

8 See Mishra/Maitra (2007); Das (2014a).

3. Environmental Conflicts in Resource Rich Regions of Odisha

Against this background, if we throw some light on the history of Odisha the responses of the tribals/small communities for their rights are not very new. The incidents involving the subjugation and the deprivation of these communities from their natural rights over resource have its history in colonial as well post-colonial India. These incidents include the uprising of Khodhs of Ghumasar (1835–37), the Gonds of Sambalpur (1857–64) and Bhuiyans of Keonjhar (1867–1868).⁹ Major causes of these conflicts were rights over land and forest resources, which is the major source of livelihood of these small communities. After seven decades of the independence these resistances/protests are still going on because of development deficits and governance deficits in some regions. Recently the state has also witnessed several conflicts around natural resources like land, forest and water. The major environmental conflicts site includes Maikancha in Raygada district, Kalinganagar in Jajpur district, Kashipur in Raygada, Lanjigarh in Kalahandi districts, Laxmipur block in Koraput district Sindhigaon, Gopalpur (1997), Maikancha (2000) and Kalinga Nagar, (2006) etc. Some of these conflicts have resulted police firing and loss of life.¹⁰

4. Battle over Bauxite

The state of Odisha, particularly the southern part of the state that is Koraput, Balangir, Kalahandi, Raygada, Bargarh etc. is endowed with 70 percent of the total bauxite of the country. As stated, above in the post liberalization period these regions have attracted Foreign Direct Investment (FDI). Apart from the Indian public and private enterprises like NALCO and TATA, since 1985 several foreign companies have attempted to explore bauxite ores in these districts. These companies include BALCO Ltd. in 1986, Utkal Alumina, INDAL, TATA, Hydro (Norway), ALCAN (Canada) and HINDALCO etc.

9 Das (2014a). Das, S. P. (2014b): *Livelihood, Environment and Developmental State: Consonances and Dissonances in the Mining Areas of Odisha*. New Delhi. Padhi/Panigrahi (2011).

10 Das (2014a).

Although the movement against bauxite mining in Odisha has started in 1985 in Balangir district to protect Gandhamardan Hill¹¹ and continued with the Kashipur (1993)¹² but the case of Lanjigarh/Niyamgiri is one of the unique which has attracted global attention on the issues of environmental and religious rights of the one of the primitive tribes of the country. In Lanjigarh the local indigenous people were against Vedanta Alumina Ltd. (VAL),¹³ which has planned to extract bauxite from Niyamgiri Hill. The company has planned to mine bauxite deposit from the Niyamagiri Hills jointly with Odisha Mining Corporation Limited (OMC) as per the lease agreement between VAL and OMC in October 2004. For this purpose, 723.343 hectare of land is required by the VAL and out of this 232.75 ha of land was private and was acquired under Land Acquisition Act, 1984 for *public purpose*. Most of this land belonged to scheduled tribes. Another 721.323 ha of land are required for the bauxite mining on top of the Niyamagiri Hill. Most of the land is categorized as forest. In addition to that, a rough estimate shows that 173 villages are situated in the project impact zone within 10 km of the area. The total population in these villages is 50586 who will be directly affected by this mining activities.

11 Gandhamardam hill is considered the mother of all the local people in terms of providing food, firewood, fodder, water (22 streams and 150 perennial springs) and medicines, both for home consumption and sale. The major NTFPs collected by the people are mahua flowers, *sal seed*, *sal leaf* (used for making of plats) bamboo shoots, *charseed*, *kendu* leaf (some part of the Odisha, Chhattisgarh and Jharkhand it is also called *Tendu* leaf and it is used for making of *Bidi* (Indian cigar)), mango, *harida* and *bahada*. The region comprises of tribal peasants and scheduled castes which together constitute 55 percent of the population. The major tribal communities of the area are *Gonds*, *Binjhals*, *Kondh* and *Kultas*.

12 This movement has started from 1993 onwards. Plant in Kashipur directly affects 2500 people in the 24 villages of *Kucheipadar*, *Haldiguda* and *Tikiri Garm* Panchayat. However company claimed that only 147 families from the three villages would be affected. In addition to that 42 villages Chandragiri, Maikanch and Kodipari panchayat would be directly affected by open caste mining at Baphlimali. The project has acquired 1000 hectares of land which has been use for years for cultivation, forestry and shifting cultivation, Note: These data were referred from secondary sources basically books and articles. After 1990s data are not available in consolidated basis. It is generally available locally so it is very difficult to collect these

13 VAL is a subsidiary of M/S Srelite industries (India) Ltd.

The tribal population constitutes 43 percent of the total population¹⁴. The protest against this project started around 2002 when the OMC and VAL started the survey process.¹⁵

5. Conflict over Niyamgiri in Lanjigarh

The case of Lanjigarh is not very different from above discussed protest sites (Gandamardan and Kashipur) in terms of the local livelihood and environment. Agriculture and collection of minor forest products is the primary activity of the people in this place. Agriculture as such is not in a position to meet their basic subsistence needs, almost all household supplement this by collecting minor forest products and non-timber fuel wood from the forest, which they consider as their main subsidiary occupation. Mining has not started in this place because of the people's protests regarding the proposed mining site (Niyamgiri Hill range). But VAL has started its plant and getting raw mineral from neighbouring states like Jharkhand and Chhattisgarh for the production.

Lanjigarh/Niyamgiri is the home of one of the most primitive tribe called *Jarnia Khond/Dongria Khond*. These names are related to their place of living, those Khonds are living near stream (*Jharna*) called *Jarnia* and those Khonds are living in the hill called themselves *Dongria* (in their dialect *dong* means hill). The hills are covered with dense forest and river valleys. These small communities living there practice a subsistence economy based on agriculture, forest products, fishing, and hunting. Their culture is intimately entwined with the surrounding landscape. The *Don-*

14 Note on Bauxite Mining in Orissa: Report on Flora, Fauna, and impact on Tribal population: The supreme Court of India in their order dated 06.09.2007 in IA No. 1324 and 1474 in Writ Petition (Civil) no. 202 of 1995 have sought the following additional information, [www.freewebs.com/epgorissa/Note%20on%20Bauxite%20Mining\[1\].doc](http://www.freewebs.com/epgorissa/Note%20on%20Bauxite%20Mining[1].doc) accessed on 19th June 2013.

15 Sahu, G. (2008b): Mining in the Niyamgiri Hills and Tribal Rights. In: Economic and Political Weekly 43. 19-21. Samantar, P. (2006): Niyamgiri Waiting for Justice. Brahampur. Nayak, S. R. (2007): Environmental Movement in the Context of Development: A Case Study of Lanjigarh, Orissa. New Delhi. Das (2014a). Das (2014b).

garias believe that the hill belongs to *Niyam Raja*,¹⁶ a male deity represented by a sword and worshipped during the festivals of *Dussera* and *Jura Parab*.¹⁷ In addition to this, the region is ecologically and culturally rich and significant for the local population. Several streams coming from the hills are the major tributaries of the different rivers of the area. Apart from that the livelihood and agriculture of these hill communities primarily depends on these water sources of the Niyamgiri. Other than this community, there are other communities living in and around the hill, they are mainly *Kutia Khonds* and some of Scheduled caste population. These tribal communities together with Scheduled castes comprise above 50 percent of the total population of the area.¹⁸

As stated above for their livelihood they fully depend on the forest of the Niyamgiri Hill. The small communities living there maintain a symbolic relationship with nature and natural resources. They enjoy natural rights over the resources surrounding them. There are 36 small and big streams in the Niyamgiri Hill. All the communities living in this area depend on these stream water coming from the streams, for their agriculture. Apart from that, most of the communities use stream water for their household use and drinking purposes. In addition to that, most of the people collect and sale NTFP in the nearest weekly market which is their main cash income. There are 112 villages which are totally depends on this hill and forest. Most of the tribal communities practice *podu* cultivation method, which is also called as shifting cultivation in the foothill of Niyamgiri. *Dongria Kondhs/Jharnia Kondhs*, those who are living inside the forest and uphill areas depend on the forest for their livelihood. They use to cultivate *Mandia* (Ragi), which is their staple food. In addition to that, they also cultivate turmeric, ginger and many fruits in the different seasons like mangos, pineapples, orange, Red banana etc. that add to their cash income apart from the selling of NTFPs like Sal leaves.

16 The King of Law and protector the communities living in the Niyamgiri hill range. People believe that Niyam Raja provides food and shelter for the small communities living in the area.

17 These are the festivals natives of the region celebrate and worship *Niyam Raja* for a prosperous life. Nayak (2007). Sahu (2008b). Das (2014a). Das (2014b).

18 Das (2014a). Das (2014b).

6. *Movement and Participation*

The tribal communities with others in the Lanjigarh have raised their voice against this mega-alumina refinery and mining project like other places of Odisha. As stated above, about 112 uphill and foothill villages will be directly affected by this project and another 350 villages and roughly 10,000 persons around the Niyamgiri Hill will be indirectly affected by the mining. They have questioned the development process by asking *Development for whom and at whose cost*, noting that it basically affects tribal people and their non-renewable livelihood resources. Here masses have raised their voice because their life and livelihood are in danger due to the faulty planning of the government and misleading statistics regarding the loss of home land, forest, agricultural land, natural resources and human resources. The conflict with Vedanta has begun with the land acquisition and the people's protest were started in 2003 with the *Bhumi Puja* (the day foundation stone was laid) for the refinery. When the foundation stone was laid, the agitators broke it down soon after two days and it took a shape of movement when district administration and VAL tried to forcefully evict people from five villages (Kinari, Borbhatta, Kapagada, Badugada and Kordiwari village) took them to the resettlement colony. It took a different shape when several people from village who were initially supporting the project joined the movement because they were not compensated as promised earlier. Most of the people are not compensated because they do not have their land records.

There are mainly three different streams of the movement in the same time, in the same place. First, stream of the people totally against the project and demanding total scrap of the Vedanta Project. Second, group of people are in support of the refinery but against the mining. The third group is in support of the whole project but they demand good (more) compensation and rehabilitation package for their land and livelihood. Local leaders of the first group of people criticized the project and pointed out, that the project is affecting vast tract of fertile agricultural land, water sources, forest, and wildlife. It has already displaced two villages fully and two villages partially and it will displace more villages in near future and finally it will destroy the only source of the livelihood and the religious and cultural symbol of the local people that is Niyamgiri from which they are going to extract bauxite for their refinery plant. According to local activists, the main point is the benefit from the project that will not reach to needy local people, but, the benefit will reach to local elites, prosperous

and rich industrialist. Second stream of the people are in view that the project is good for the development of region but they could not allow mining Niyamgiri, because most of the people depend on the hill for their livelihood. Apart from that, this group suggests that the state should provide mining of bauxite at any other place for the refinery. This group also demands that new rehabilitation package should be given to them because several projects affected people have not got their actual compensation due to corruption by the middlemen. The third stream of the people are basically asking the compensation that they think is not good enough what they are going to lose. In the Lanjigarh the villages and different social groups are also divided according to their ideology and interest.

7. Civil Societies and its Participation

Apart from these, above social and economic divisions, people are also divided under many organizations according to their ideology and interests. Organization like *Green Kalahandi*, *Sachetan Nagarik Manch*, *Niyamgiri Surakha Samiti* etc. are participating in the movement for the protection of Niyamgiri. These organizations have their own agenda, as well as, all of them also have a common agenda. Sometimes these organizations participate in the movement collectively and sometimes they protest separately. Like the above organizations, some other Non-Governmental Organizations (NGOs) are also working in the region. One of the leaders of the *Niyamgiri Surakha Samiti* has stated that the organizations like *Lanjigarh Anchalika Bikash Parishad*, *Nabin Vikash Trust*, *Lanjigarh Unnayan Anchalika Samiti*, *Niyamgiri Adivasi Vikash Parishad*, *Shakti Organisation*, *Kui Bikash Parishad* are sponsored by Vendanta to create public opinion for the refinery and mining. He also accused these organizations for misleading poor and illiterate tribal people in the name of development by providing short-term benefits. Furthermore, some of the movement activists also stated, that Vedanta has employed several local people who help them in creating public opinion for them. Most of the local leaders of the movement are in opinion that the influx of non-tribal people in the region after 2005 has also suppressed the tribals.

8. *Politics of the Political Parties*

In addition to civil societies, mainstream political parties are also involved in the movement through different organizations as well as supporting the cause from outside. The mainstream political parties use these platforms for their electoral politics. It is also evident from the last election that opposing the project, Indian National Congress party candidate has won election and some leaders of Biju Janata Dal¹⁹ (those who are in support of the project) have lost the election because of the movement. During the movement, several social activists and political leaders like Medha Patkar,²⁰ Rahul Gandhi,²¹ and Jairam Ramesh²² visited Lanjigarh and met tribal leaders during the movement. These leaders also promised that they will also fight for the livelihood and religious rights of the native population. In a setback against VAL in August 2010 Ministry of Environment, Forest and Climate Change had withdrawn the forest clearance license given for the mining in Niyamgiri. It put a stop to VAL's plan to mine the sacred Niyamgiri. The withdrawal of the forest clearance is considered as a political decision. The clearance was withdrawn just after the Lanjigarh visit of Mr. Rahul Gandhi (then Vice President, Indian National Congress) where he promised to protect the sacred hill and its people's livelihood.

In addition, the Supreme Court of India in 2013, for the first time in the history of independent India, decided to go for an environmental referendum in the villages of the affected areas recognizing religious cultural rights of the endangered communities under *Scheduled Tribes and Other*

19 Biju Janata Dal is also known, as BJD is a regional political party, which is ruling the state of Odisha from the year 2000 onwards. The Chief Minister and party supreme Mr. Naveen Patnaik is one of very strong support of Foreign Direct Investment (FDI) in the mining sector in the state. Under his leadership Odisha's Mineral sector has attracted huge FDI for different steel, aluminium and power projects.

20 Medha Pathekar is one of the prominent social activists. She played a very significant role in Save the Narmada Movement and known for her environmental activism in India.

21 Rahul Gandhi was the then National Vice-President and presently the President of Indian National Congress (INC) the biggest political party in the United Progressive Alliance (UPA), which ruled India from 2004-2014.

22 Jairam Ramesh is a Member of Parliament from prominent member of INC. He was also the Minister of Environment and Minister of Rural Development in the UPA government during 2004-2014.

*Traditional Forest Dwellers.*²³ In this historic referendum, all the village councils rejected the plan of bauxite mining, which stopped the project. In February 2016, OMC, the state-owned mining corporation again challenged the 2013 Supreme Court judgment. However, the Supreme Court refused to accept the petition and directed OMC to approach appropriate forums against the decision of the village councils held in July–August 2013. In this context, the communities and their leaders think that their battle against VAL and for the preservation of their environment is not over in a state where money matters.

9. Conclusion

Analysis of Lanjigarh environmental conflict reveals, the small and endangered communities are fighting for their rights to livelihood, environment, identity and lifestyle, which is distinct from others. The conflict is also against free market economy which natives of the region think is a major risk to their distinct identity, culture and livelihood. It also reveals different layers of people's participation in the movement. In broader sense, this conflict is a rejection of the present model of development, which stresses upon forceful integration of these small communities into the mainstream. One of the major reasons of the conflict is trust deficit between state development model and the people, which has continuously ignored the people's strength and cultural wealth of the regions. In the contrary, this trust deficit has also created a space for the socially, politically and economically lower section of the society to raise their voice and show their strength. The people's movement helped the poor and marginal groups to access information on their right to life and livelihood. These movements and conflict areas also remind us that there is a need for change in the present model of development.

Indian judiciary and judicial activism has also provided a space for marginal communities against oppression of state and market. Specifically, Vedanta bauxite mine judgment of the Supreme Court provided a hope of social democracy among these small communities. Further, this precedent

23 *Recognition of Forest Rights Act* – better known as the Forest Rights Act (FRA) of 2006

also lays the legal ground for many more communities to fight displacement on religion and cultural considerations.

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