

Chapter 4

The Kazakh Ethical Tradition and Anti-nuclear Ethics



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Abstract The article analyses the contribution of the Kazakh traditional ethics to the formation of a modern harmonious world. The peaceful and harmonizing nature of the philosophical ethics of various civilizations at different stages of history characterizes the diversity and unity of human aspirations for peace and harmony. The development of nuclear weapons in the modern world is a serious challenge to this concept of development. Ethical ideas of different nations can be used as a weighty argument in favour of the refusal of mankind from nuclear weapons. The authors focus on the harmonious worldview of the nomads, who understood the interconnectedness of the world of man and the world of nature.

4.1 Introduction

A tolerant and peaceful tradition of philosophizing has formed in the Kazakh spiritual culture, reflecting the people's dream of peace, freedom, well-being and fraternal interaction between nations. It seems, on the whole, that many years of colonial and postcolonial dependence has failed to erase the values of good, justice, peace

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and social optimism from the minds of people. A clear example of the enactment of these values was the decree of the First President of Kazakhstan, Nursultan Nazarbayev, to close the Semipalatinsk Test Nuclear Range on August 29, 1991, as we will elaborate throughout this chapter (Decree of the President 2016; Әрлан 2016; Einstein-Russel 1955). This arguably courageous political step was preceded by a broad anti-nuclear social movement “Nevada Semipalatinsk”, initiated by the famous Kazakh poet Olzhas Suleimenov (2003). For Kazakhstan, the abandonment of nuclear tests and subsequently the complete abandonment of nuclear weapons meant a return to the peace-loving values of Kazakh people, finding genuine freedom to independently decide their own fate, free the vast Kazakh steppes from weapons, authoritarian Soviet violence and despotism. Such a growth of national and civil identity has become a key factor in the collapse of the Soviet Union (USSR).

The Kazakh ethical tradition, which can be said to inform the types of values articulated above, draws on understandings of ideological systems, value orientations, beliefs, mythopoeic and other spiritual and cultural manifestations of the people and its representatives. These have existed for many centuries, since the appearance of the ethnonym “Kazakh” in various Kazakh state formations on the territory of modern Kazakhstan, which formed the complex behavioural codes and representations that distinguish them from other nations. Against this background, this chapter first outlines the history and contemporary manifestations of such ethical approaches, before exploring their application to the case of nuclear energy. In so doing, it demonstrates the range of technological evaluations such an approach can allow and establishes a challenge for the adoption of traditional Kazakh philosophical concepts going forward into increasing modernization and international collaboration.

4.2 Kazakh Philosophy

In general, the emergence of global social structures relies on the processes of changing, adapting new norms, formulating, propaganda, dissemination and colliding with opposing or other ethical norms found in the codes of honour of other countries and peoples. The Kazakh tradition has experienced a variety of such interactions, colliding with notions of “Zhasau izi” from Yassa Genghis Khan and “Zheti Zhargy”, or the “Seven Laws of Tauke Khan” as it is otherwise known. “Zheti Zhargy” is the code of customary laws of the Kazakhs, adopted in the Kazakh Khanate under Khan Tauke (1655–1715) (Nusupbekov 1979: 334–341). Within this section of our chapter, we focus on seven particular principles that delineate a Kazakh’s philosophical perspective.

In these codes and in the Kazakh language, there are many words denoting a worthy person, or a man of honour. The sages of the Kazakh steppes were seen to be carriers of universal traits that manifest themselves in various facets of reality. Nomadic Kazakhs called such people “Segiz Kirly, Byr Syrly”, “multi-faceted persons”, literally meaning that they had eight faces and one base. This type of person-

ality would possess special ethical qualities such as “danagoy” (striving for wisdom), “danyshpan” (sensible), “kemenger” (being rationally active), “oishyl” (a thinker), “parasatty” (understanding), “akyldy” (smart), “sanaly” (conscious), “bilgir” (knowing), “tarbiyeli” (well educated), “dyrys” (correct), “on” (exact), “talapty” (purposeful), “mandi” (meaningful), “belgili” (famous), “kutty” (fertile) and “kasi-etti” (gifted, talented). The emergence of these terms proves that from ancient times, in the discourse of Kazakh ethical culture formed an idea of a meaningful, virtuous, dignified life. These terms represent to us the value and content of the activities of wise people, respect for ordinary people not only to the wise word, but also to the conscious action and prudent decision.

A person of traditional Kazakh culture follows the unwritten rules that (1) the word is an action, (2) knowledge is an act, (3) morality is an assessment of life, (4) insight is good, (5) foresight is holiness and (6) talent and special qualities show her power. This power consists of achieving influence, the attention of people, authority, the ability to lead people behind them and to inspire them with some idea. Wisdom is courage—the ability to know and to speak the truth and to act according to her. Therefore, the wise men of the steppe, famous for their knowledge, words and actions, were in authority. Everyone turned to them for advice, from simple “sharua” (ordinary person, peasants) to the Khans. They were often near to the governor and at the same time they were autonomous and independent. Nomadic Kazakhs knew the hierarchy and followed this fine line.

The Sages of the Kazakh nomads are always free and independent people. They were able to tell the ruler the truth to their face and to express the aspirations of the people, not caring about their personal welfare and even life. Notable are the personalities of the philosophers Asan Kaygy, Bukhara Zhyrau, Makhambet, Tole bi, Kazdausty Kazybek bi and Ayteke Bi, who possessed the courage of “Tura kɵzkaras, Tura sɵz”, “direct sight, direct word”, which rulers regarded.

The development of the Kazakh nomadic philosophical tradition is based on an understanding of the characteristics of its development. Nomadic Kazakhs represent non-stationary (i.e. dynamic) social groups with open systems of thought. They are able to integrate their various components, despite the different nature of their origin. This made it possible to engage with well-established ideological systems, whilst giving tribute and recognition to them and simultaneously being guided by habitual and adapted to nomadic life and life representations.

4.2.1 A Traditional Kazakh Ethical Code

The traditional Kazakh ethical code can be evidence by the adoption of Islam as the dominant worldview of the Kazakh nomads. In the works of famous nineteenth century first Kazakh orientalist Shokan Ualikhanov—and in the particular article “On Islam in the Steppe”—he points to the fact that the steppe people have a freer, independent spirit than the “Bukhara or Tatar mullahs” (Valikhanov 1985a: 293). The nomads, along with the observance of Muslim traditions, preserved the rites of

other ideological systems, such as Tengriism. So, the concept of “Tanir”/Tengri—Heaven—took root in the Kazakhs as a synonym for God-Allah. Animistic representations, that is, a belief in “aruakh”—spirits or impersonal natural forces—were also widespread amongst Kazakh nomads, and even amongst modern Kazakhs, representing an integral part of their national outlook despite the general identification of themselves as both Muslims and completely modern secular people.

In the context of this chapter, it is important to emphasize that a belief in spirits—ancestors or impersonal forces of nature—is transmitted on an intuitive, unconscious level in the context of transgeneration. It is also understood as a process and the formation of a new one, based on previous and transmitted experience. Aesthetic canons (Mukanov et al. 2017) and ethical rules, in spite of the experienced and current transformation, retain their original, naturally determined content. Thus, the ecological way of life of the nomads, in which their main advantage was to preserve the immutability and loyalty to Mother Nature, further determined their way of thinking and choice of a behavioural model under shifting social conditions. For the Kazakhs, these social and technological contextual challenges were, amongst others, forced sedentarization, collectivization, industrialization and the militarization of the territory including tests in the Kazakh steppe of the latest types of biological and nuclear weapons. In summary, the traditional values of the steppe people of the past still play out an important role in midren time. The essences of the seven principles of the Kazakh ethical code (Amrebayev 2015) were and are still used (Table 4.1).

All this ethical category can be interpreted at micro and macro levels: at the micro level, as a personal, associated with a purely human community, and at the macro level as immersed to the ideas about the world and nature.

The first principle “Ana Kurmetteu, Ana Sutin Aktau”, or “Respecting the mother, the intention to justify the milk of the mother”, is the greatest and very first principle that is accepted by those holding Kazakh philosophies. From one hand a man ought to preserve the moral and ethical qualities that were laid down by the mother and transferred as an ethical code. Every person should to live according to the mother’s moral expectations. He must justify the milk of the mother, the gene that she passes to her baby. On the other hand, according to the ideas in the Turkic

Table 4.1 The seven principles of the Kazakh ethical code

Principle	Focus on
Respecting the mother	To be held worthy and meet the moral expectations of the community
Respecting the native hearth	Internal, community consistency
“Zheti ata”—to know by heart the names of your own seven ancestors in the male line	The preservation and transmission of the genealogical tradition
Serving the Fatherland	Bravery and fighting spirit
Sacred attitude to the word	Conscious harmonious communication
Hospitality	The value of human communication
Conscientiousness	Maintaining the honour and dignity of the person

nomadic culture, Umai-ene, the angel—spirit is the patron of mothers and pregnant women, which also had been associated with the native Earth-Water and protects everyone to be born. Therefore, each person should strive to justify the milk of Mother-Earth.

Secondly, the code stipulates respect for the native hearth. “Kara shanyrakty kurmetteu” or the ability to protect and to save your hearth. This is a focus on internal, community consistency, rootedness in the family. When the time comes and the sons leave the nest, create their families and raise their own “shanyraks”. However, in the family hierarchy, in the minds of the Kazakhs, at the top is the father’s “Kara Shanyrak”. Sometimes “Kara Shanyrak” is associated with the historical homeland. In the Kazakh tradition, excommunication from a kind of tribe was a tragedy.

The third ethical principle is the requirement to preserve and transmit the tradition, continuity of honour and dignity of a person, enshrined in the code “Zheti ata”—people’s knowledge about their seven ancestral tribes and their responsibility for the seven tribes of descendants. We always live in the space between the past and the future. We bear the stamp of the behaviour of our seven ancestors. If they were worthy, if they were honest, and if they honestly served their homeland, then they were honourably fixed in the ethical code of the clan-tribe. For example, your grandfather was the chairman of a collective farm, great-grandfather fought somewhere, great-grandfather was an assistant to some kind of khan, and so on. At the same time, this principle of the “Zheti Ata” also requires decent behaviour from us, because we are responsible for the next seven generations for the gene ethical history of the future. Because if we behave unworthily in society, then they will say about us: “He is a thief, a scoundrel!” In historical memory, it is recorded whoever committed an unworthy act and this seal is borne by their sons, grandsons and great-grandsons. Their social status will already be completely different; they will bear this black seal until they are straightened out. Therefore, I must be very careful about my behaviour, here and now, trying not to let other people down and trying to preserve my purity and fairness of my clan and ultimately national honour and dignity. No one wants her or his child to bear the debts of his father or mother or his ancestor. Kazakhs, when they bury a person, are always asked who will be responsible for the debts of the deceased, and then his son takes the debts upon himself. In an ethical sense, it is a very tense state that always makes one behave virtuously, that is, does not allow oneself to do something dark that could be imprinted on future generations. This connection of seven ancestors and seven descendants is alive and very important.

Along with the preservation of cultural continuity, the stability of the ethical tradition—“Ata Zholy”, or following “the path of the ancestors”—remains as a kind of standard of high ethical behaviour. The introduction of new, modernized ethical canons is a rather complicated process that requires verification through time. You need to remember the traditions and canons and, at the same time, modernize them. Nevertheless, the essence and the main outline remains the same. No matter how we integrate, no matter how we perceive the modern information channels, we maintain contact with time and our people.

The fourth value is “Atamekendi suyu, atakonstsy korgau”, or “Love of fatherland, protect the homeland”. It means love for the Native land, the willingness to sacrifice oneself in the name of the Motherland. In Kazakh tradition, this is very clearly fixed. The Kazakhs, is a nomadic tribe, the people—the army—whose main occupation was constant combat capability, courage and fighting spirit. The Kazakhs are a militant nation, capable of standing up for itself.

The fifth value “Soz Kadyryn tusinu”, or literally “understanding of the meaning and value of the word”. This represents freedom of expression, a very sacred attitude to the word. Kazakhs say: “Are you responsible for your words?” This means to understand the meaning and significance of what you say. A word, as an act, is very important. In the traditional culture of the Kazakhs, the word can be both “a curse” (“kargys”) and a blessing (“bata”). The word conveys not just information but also spirit to a person. We communicate, conduct internal dialogue and present ourselves thanks to the word.

The Kazakhs say: “You can cut off the head, but you cannot make someone fall silent.” There were many facts in history when the sage was telling the truth to the Khan. Unfortunately, contemporary history has taught people to adapt, to tell lies and to live by a double standard. Hence, people think one thing, say another, and act in the third. During the Soviet Union reign or period, there was an ideologization, a collective dupe where the mind was flooded with political myths that the Soviet government spread. And in the Kazakh tradition this cannot be so.

The sixth principle is hospitality. The value of human communication is one of the most important for the Kazakhs. Kazakhs say “Adamnyn Kuni Adammen”, “the life of a person with a person”. No one can live outside society. There is a principle: “Taspen urse, aspen ur”, “If someone throws a stone at you, give him a treat in return and everything will be restored”. This is the understanding that you are not alone in life. You come into this life with crying, and with crying you leave and only decent human relations accompany you. There is not only a linear connection from the past to the future, but also actual branched social ties. We have, for example, this relationship “tuys-tugandar”, meaning close relatives.

A “dzhigit” (young man) has three large groups of close relatives: “Oz Jurt” is his paternal relative, “Nagashy Jurt” the relative of his mother and “Kain Jurt” relative from his wife. And to each of them “dzhigit” has a special attitude, special rights, special communication and obligations. Senior-junior relationships are also regulated and ethically meaningful. There is the saying: “agasy bardin, zhagasy bar, inisi bardin tynsy bar”, or “Who has an older brother, he has a support, who has a younger brother, he has a joy”. The Kazakhs have an exceptional attitude towards the girl. “Kyz-konak”—they say “The girl is a guest”. In her father’s house she always sits in a place of honour, and the attitude towards her is very special and respectful.

All these roles and identities exist in parallel. There is some kind of dialogue to some kind of mutual understanding. There is such a moment as respect for individual freedom. There is the principle: “Oz Yerkin Ozine”, that is, every person is free to do as he pleases without infringing on the rights and status of another person.

The seventh principle “ar-uyatyn saktau”, or literally “save consciences”. It means the preservation of the honour and dignity of the person himself, based on conscience.

All seven universal principles are inherent in Kazakh traditions, which can unite people, regardless of the income status, place of residence, means of communication and whether they classify themselves as having a traditional or modern outlook. These differences can merge and when we talk about social design, we are talking about building these bridges that bring different nations and states together to resolve common tasks.

4.2.2 Particularities of Nomadic Life-Style

The peculiarities of the nomadic lifestyle and its cultural and artistic potential are notable, and they have become the major sources of the formation of Kazakh worldview. There are several positive characteristics of the nomadic lifestyle. We focus here on “independence”, “view on death” and “communication”.

The nomadic Kazakh nation was integral to nature, and the determinate set of its nomadic life was the “human-nature” paradigm. The nomadic lifestyle was tightly connected with constant movement, and the movement represented the aspiration for improvement and constant renovation. The nomadic lifestyle has added the practical character to Kazakhs’ way of life. The desire for the hoarding and the richness was alien to Kazakh nation. In contrast, the challenge of constant resettlement and the long and difficult task of migration from one place to another have led to the development of the characteristics of patience, mutual understanding, caring, ability to live in a community and discipline, amongst others. In the sedentary way of life, there tends to be a problem of ruling power, whilst in the nomadic community the relationships amongst people are regulated through traditions, customs and constant shifts. A nomadic person, in contrast to a settled person, remains a relatively independent individual in society.

The endless space of the nomadic lifestyle has become the basis of a particular culture, and of the distinctive arts of the Kazakhs and its high spiritual inspiration. Chokan Valikhanov, one of the first Kazakh scientists in the nineteenth century, has fairly stated that the poetic and conceptual spirit of nomadic Kazakhs was influenced by light-hearted nomadic life or by constant contemplation of the nature, by open stellar sky and boundless green steppes. He wrote: “The shaman man was amazed at the sun and worshiped him; I saw the moon and bowed to her; he bowed to everything in nature, where he noticed the presence of this inexplicable force, eternal as time, which he called the blue sky, Kok Tengri. The origin of shamanism is the adoration of nature in general and in particular” (Valikhanov 1985b: 50).

In our opinion, we can constructively use as a method the insight intuitively interpreted by Dilthey as a personal development. To understand is to experience personally, to reveal the vital connection of what is understood with the aggregate experience of a person’s life (Nuryшева and Smirnova 2015: 4). So the main cate-

gory of the philosophic worldview of Kazakhs is life, “omir”. Life is the most important value amongst the values surrounding a human being. Undoubtedly, it is the basis and the absolute pre-condition of all other values. Kazakhs, raising life and comparing it with death, stated: “Myn kungi tamyktan bir kungi jaryk”, or “One day of light is more than thousand days of darkness”; “Oli arystannan tiri tyshkan”, or “It’s better to be a living mouse than a dead lion”; “Tiri adam tirshiligin jasaidy”, or “A living man will live and create”. In the understanding of the Kazakhs, a human being should live his life meaningfully, value each and every day, think about it as much as possible and always aspire for its development. The importance of this existential question about life is raised in almost all of the national songs. Listening to them, it is felt that Kazakhs were diligently calling the fellow countrymen on valuing life, fulfilling it with the meaning and were regretting that it is transient. To express their philosophic thoughts, Kazakhs were using the words of its rich and extremely beautiful language.

In the understanding of Kazakhs, only a human himself through his actions is able to fill his life with meaning. Kazakhs say: “Duniege eki kelmek jok”, or literally “Do not come into this world twice”, meaning he has been given with only one opportunity to be and only he himself is accountable for his life. The characteristics of life are also explained through the category “dunie” or “world”. It should be stressed that the word “dunie” is applicable when explaining the objective reality (dunie-bolmys), the material richness (dunie-bailyk) or the surrounding reality (dunie-alem), but the main philosophical meaning of “dunie” is fully disclosed when characterizing life. The following word combinations “dunie-jalghan”, “kum dunie”, “ottin dunie” and “dunie-arman” perfectly reflect the relativity and shortness of life. These thoughts are particularly well expressed in “kara-olen”—the simplest way of a verbal creation of Kazakh nation. “Kara-olen” is a quatrain that was composed by every Kazakh. “Kara-olen” precisely reflects the everyday life of Kazakhs. From the first side, it might seem that in “Kara-olen” it is suggested to live a life-dunie effort, easily, in welfare and joy, but the philosophical thoughts of Kazakhs about life-dunie reflect another view. The Kazakh nation teaches to fill the life with effort, following the right satellite of life, with good friends and relatives.

The category that defines the meaning of life is death. In understanding the Kazakhs’ way of life, death is a natural life phenomenon. It does not exist outside of life but is in the dialectical unity with it. Thus, death is perceived by Kazakhs in tight connection with the lived life of a human. Certainly, every person has a subjective fear of death, but Kazakhs rarely make the absolutization of death and the ignorance of life. In addition, there is no concept of life as being meaninglessness due to the existence of death. If life was meaningful, death cannot erase it. A person is only afraid of death if she was not able to fulfil her life with good actions and intentions. The great Kazakh poet Abay in a poem devoted to his son Abdrahman (Kunanbayev 1895), who passed away at very young age, stresses that it is important how he lived in his way, but not the fact that he died. The attitude of Kazakhs to death is strongly stressed in the thoughts of Kazakh commanders—“Batyr”—who protected their territories from the enemies.

The category “aralasu”, “communicating”, reflects the relationship between the individual and the society, his ability to live in peace and understanding with his fellow countrymen and the representatives of the entire humanity. The human existence is itself always developing, changing and renovating the process of communication. A human being develops his personality only in the society, through communication, in the dialog of “I” with the “Other”. A Kazakh nation has a striking aspiration for communication. It can be said that “aralasu” is itself the meaning of life for Kazakhs, and one of the highest values. It is thought that the reason for such aspiration to communication Kazakhs has developed from the nomadic lifestyle. The Kazakhs valued every moment of communication not only with their relatives and their countrymen, but also with all other representatives as well. The aspiration to the communication has been transmitted from one generation to another. The guests of Kazakh land always noted the hospitality, patience, deep emotional state and sincere purity of the thoughts of Kazakh people.

From the eighteenth century, Kazakhs were involved in the orbit of Russian politics. During the twentieth century, the Kazakhs were involved in all historical events related to the creation, functioning and disintegration of the USSR. The wide social programs of the Bolsheviks, promising economic, political and national freedoms, in fact, turned into several tragedies for the entire population of Kazakhstan. Along with tremendous social achievements (in education, health, urban development, etc.), Kazakhstan was a platform for social experimentation (forced sedentarization, famine 1931–1932, repression 1937, creation of a testing ground in Semipalatinsk) during the totalitarian period of the Soviet regime. An objective study and assessment of historical events became possible only with the beginning of the Independence of the Republic of Kazakhstan since December 1991. Comprehension and philosophical reflection of these events is still in progress and not completed.

4.3 The Case of Nuclear Policy

Kazakhstan, which has gone from being the owner of the fourth nuclear arsenal in the world to the leading country in the field of nuclear disarmament and the non-proliferation of nuclear weapons, makes a significant contribution in the area of international relations and nuclear policy. Arguably, Kazakhstan is a leader in the world’s anti-nuclear movement and has thus proved strict adherence to the principles of the peaceful coexistence of nations.

Today, the traditions of harmony, continuity of the Kazakh nomadic wisdom, can be observed in framework of modern ideological innovations. One of the central ideologies of the development of the people is inter-ethnic harmony and peace between the peoples of the country, manifesting as the ideology of non-violence and the preference for compromise in international affairs. In this vein, some consider that Kazakhstan has become a platform for dialogue on a variety of the top issues of today. As an example, there are initiatives to convene the Congress of Leaders of World and Traditional Religions, a platform for dialogue on the Syrian settlement,

and the Presidents of Kazakhstan and the United States agreed to create the only Central Asian training centre on nuclear safety.

On March 2, 2018, in New York, on the day of the celebration of the next 26th anniversary of Kazakhstan's accession to the United Nations, the Republic of Kazakhstan held the official signing ceremony of the Treaty on the Prohibition of Nuclear Weapons (TPNW). This event symbolized the institutional consolidation of the peaceful aspirations of the Kazakh people. The agreement was signed by the Permanent Representative of Kazakhstan to the UN, Kairat Umarov, in accordance with the powers granted to him by Presidential Decree Nursultan Nazarbayev No. 617 in January 9, 2018 (<https://www.inform.kz> 2018).

The Treaty on the Prohibition of Nuclear Weapons was adopted on July 7, 2017, with the support of 122 UN member states. This document was the outcome of two negotiation sessions of the UN Conference, both of which combined to establish legally binding instruments on the prohibition of nuclear weapons, with the aim of securing their complete destruction. Despite this global peace initiative, the nine states, de facto and de jure possessing nuclear weapons—the countries of the so-called Nuclear Club, including the USA, Russia, China, Great Britain, France, India, Pakistan, North Korea and Israel and their allies—boycotted to initiative. To date, 56 States have signed the Treaty, 5 of which have been ratified. Kazakhstan has become the 57th signatory state. The document comes into force 90 days after the deposit of the 50th instrument of ratification. Thus, by participating in the Organization of the Comprehensive Nuclear-Test-Ban Treaty (OCNTBT), Kazakhstan is taking an active part in the anti-nuclear movement.

4.3.1 Case 1: The Semipalatinsk Nuclear Test Site

For the first time in the world—at the end of World War II on July 16, 1945, at 5.30 am near the Alamogordo settlement (New Mexico, USA)—a nuclear explosive weapon with a capacity of 20 thousand tons of TNT equivalent was tested. On the 6th and 9th of August, 1945, respectively, the Americans dropped two atomic bombs on the Japanese cities of Hiroshima and Nagasaki. As a result, they were virtually erased from the face of the earth; their populations of a total of 145 thousand people were destroyed. After these barbarous steps, the USSR took up the development of its nuclear program. This marked the beginning of an era of nuclear confrontation between great global powers (Z.G Saktaganova 2012).

In the beginning of 1946, the USSR actually began organizing its infrastructure with a view to US nuclear confrontation. It created specialized management structures under the government, as well as scientific, industrial and laboratory complexes whose tasks included searching for, mining and processing uranium ores, developing technology and manufacturing fissionable materials as well as atomic bomb structures. The development of nuclear weapons was led by the scientific and technical council of the First Main Directorate under the USSR Council of Ministers. In 1946, a nuclear centre (KB-11) was organized in Arzamas-16 near the city of

Gorky (Nizhny Novgorod), where a group of scientists led by Yu. B. Khariton was engaged in scientific research leading to the creation of nuclear weapons. In August 1947, the Decree of the Council of Ministers of the USSR made a decision to create an atomic test site under the code name “Training site No. 2”.

For the construction of the waste repository at Training site No. 2, an area 140 km west of the city of Semipalatinsk (on the territory of modern Kazakhstan) was chosen. It was surrounded from the south, west and north by low mountains, remote from large settlements, and had the necessary transport infrastructure. The Semipalatinsk Nuclear Test Site (SNTS) included the lands of three regions: Semipalatinsk, Pavlodar and Karaganda. Under the site, a total of 18,000 m² was withdrawn from the economic turnover. One of the main stages associated with the creation of a nuclear weapon is the stage of its field testing. The tests were carried out not only to study the damaging factors of nuclear explosions, but also to determine the main characteristics of the charge, to check the correctness of theoretical calculations and to confirm the full suitability of the ammunition necessary in case of emergency.

At the same time, the decision of the Kremlin government did not take into account the needs and interests of the local Kazakh population, who had become hostage to the authoritarian policies of the Soviet state. The Stalinist government showed its inhuman essence.

As a result of the mobilization of human, financial and technical resources, as well as tough organizational control by the ruling party and the military-industrial complex of the USSR, in the space of 2 years Kazakhstan built the Semipalatinsk Nuclear Test Site, the second in the world. At the end of July 1949, the State Commission accepted the test site, determining its readiness for nuclear testing. The first ground-based nuclear test in the USSR took place on August 29, 1949, at 7 o'clock in the morning; the height of the explosion of the charge was 38 m above the ground, the capacity of 20 thousand tons of TNT, the wind speed of 40–50 km/h.

The program of the first atomic test in the USSR, formulated in Government Decree No. 2142-564 of June 19, 1947, was focused mainly on solving two main tasks: (1) evaluating the design of a nuclear charge and (2) obtaining the data necessary to study the effects of a new weapon on various military facilities, installations and animals. Despite the fact that the SNTS was the main nuclear test site of the USSR, it was not intended for the production of high-power explosions and as a result, did not suggest measures for the comprehensive protection of the adjacent territories' population from contamination due to nuclear explosions.

The volume and depth of exposure to radioactive materials depended on the strength and direction of the wind during ground tests. For example, the explosion on November 22, 1955, was the most powerful in the history of testing nuclear weapons at the Semipalatinsk Test Site. When using charges in the megaton class, it showed that it is very difficult to ensure general safety and, crucially, to exclude the possibility of causing defects to various structures in the areas adjacent to the test site as a result of shock waves. Clearly, the territory of the Semipalatinsk Test Site was not adapted to conduct high-power explosions. On November 22, 1955, a RDS-37 thermonuclear bomb was tested at an altitude of about 2 km as it was

dropped by an aircraft. On October 11, 1961, the first underground nuclear explosion in the USSR was carried out at the test site.

From 1949 to 1989, at least 468 nuclear tests were carried out at Semipalatinsk, in which at least 616 nuclear and thermonuclear devices were detonated, including 125 atmospheric (26 ground, 91 aerial, 8 high-altitudes) and 343 nuclear test explosions underground (of which 215 in the tunnels and 128 in the wells). Dozens of hydronuclear and hydrodynamic tests were also conducted (the so-called NCR—incomplete chain reactions). The International Nuclear Test Ban Treaty (which applied to the three environments of air, space and under water) was signed on October 10, 1963, in Moscow between the USSR, the USA and Great Britain. After this, only underground explosions began to take place at the test site.

The total capacity of the nuclear charges tested in the period from 1949 to 1963 at the Semipalatinsk Test Site was 2500 times higher than the power of the atomic bomb dropped on Hiroshima. The radioactive clouds of 55 air and ground explosions and the gas fraction of 169 underground tests went beyond the site. It was these 224 explosions that caused the radioactive pollution of the entire eastern part of the territory of Kazakhstan. To this day, the country's population is experiencing the echoes of these tragedies through both the radioactive contamination of people and their descendants and irreplaceable damage to the environment, flora and fauna of the region.

In 1989, the famous Kazakhstani public figure poet Olzhas Suleimenov created the movement “Nevada-Semipalatinsk”, bringing together victims of nuclear testing around the world. The last explosion at the site was carried out on October 19, 1989. On August 29, 1991, the Semipalatinsk Test Site was closed by the authorities of the Kazakh SSR. In order to eliminate the effects of nuclear tests, for more than 20 years, Kurchatov scientists continue to work on examining the territory of the former SNTS in order to accurately establish its real boundaries based on the scientific analysis of water, air and earth samples, testing for the presence of an increased radiation background.

The task is to identify contaminated sites in order to prevent the physical access of people and animals to them. And such sites are available not only in the territory of the site but also beyond. According to Erlan Batyrbekov, today, 7860 km² out of 18,000 km² of the landfill has been surveyed. These are mainly lands of the northern, western and south-eastern parts of the former landfill. The first stage of rehabilitation of the affected territories was the complete elimination of the entire military infrastructure of the landfill, which included the destruction of stockpiles of nuclear weapons and warheads, mines, mines prepared for underground explosions and much more. American scientists have already expressed a desire to take part in the work to eliminate the consequences of nuclear tests at this site, and since 2016, large-scale work has begun. Positively, the general director of the National Nuclear Centre of the Republic of Kazakhstan (NNC RK) noted that “hundreds of kilometres of land, the radiation background of which is quite normal, can be used for household needs” (Gulieyva 2016).

For the first time, scientific experiments have been launched in collaboration with scientists at Semey State Medical University. Their essence lies in the study of

radiation dust on biological organisms, using the subject of laboratory rats so that they can observe how it can penetrate into a living organism and with what consequences. It is radiation dust that is produced at one of the Kurchatov reactors.

In August 2015, as part of security provision in the SNTS, together with the National Guard of Kazakhstan and the United States Threat Reduction Agency, three levels of physical protection of all secret objects and objects of increased radiation hazard that are located here were tested. According to the results of testing, the National Nuclear Centre of the Republic of Kazakhstan received the highest rating from both Kazakhstani military services and their American counterparts.

The Semipalatinsk nuclear area is amongst the regions of the planet most affected by nuclear experiments. Today, the Semipalatinsk Test Site has become silent; nuclear charges have been removed from Kazakhstan and it has become a nuclear-free zone, but atomic bomb tests remain in the genes of people. Radiation has damaged their genetic code. The closure of the nuclear test site met the urgent needs of people who were forcibly held hostage by authoritarian political decisions. At the same time, it also symbolized the enduring philosophy of the life of the Kazakh people—the hope for the revival of life in the long-suffering land of Kazakhstan.

In general, in the Kazakh philosophical and ethical tradition, life has been granted to man from above, and the task of man is to fulfil the high humanistic mission of building relationships with each other. A Kazakh proverb says: “Adamnyn kuni adammen!”, “The life of a man with a man!” It follows that no utilitarian geostrategic considerations can justify the cruelty and injustice of people towards each other. Another important aspect of the problem is the ecological attitude of the Kazakh nomads to the world around them. Here, the nomads, in accordance with the cyclical perception of the world, tried to leave nature as untouched as before their arrival. In contrast to the settled culture, the task was to leave behind not material, but spiritual artefacts of culture, a good memory in the hearts of people, high moral and ethical examples, ethical canons of decent behaviour and heroic deeds.

In accordance with these ethical foundations, the perception of the nuclear test site and tests, of course, was that of a national tragedy, a test similar to the era of “Zar-Zaman”, or “the Age of sorrow”, which represented the loss of nomadic life and thus the harmony of man and nature. The proving ground personified the onset of a technological civilization opposing the values of humanism. The creation of the testing ground by the Soviet government on the territory of the blessed Steppe was a challenge to the natural harmony and a kind of spiritual genocide against the people who lived there serenely. The cruelty of the Soviet regime towards the people was manifested in the fact that it did not even protect or warn them about the danger.

Unfortunately, the successors of the USSR, the modern Russian leadership, did not even apologize to the Kazakh people for the damage caused and did not take a single step to compensate the people and nature. Although there have been examples in history when states were rehabilitated in the eyes of the people, such as Germany apologizing to Israel for the genocide of the Jews during the Second World War, which indicates a high moral responsibility and moral standards of a modern civilized dormitory, this has not happened between Russia and the Kazakh people.

4.3.2 Case 2: *Kazakhstan's Refusal of Nuclear Weapons*

After the closure of the nuclear test site in Semipalatinsk, Kazakhstan faced a difficult dilemma: whether to preserve or abandon the arsenal of nuclear weapons. Geostrategic conditions spoke in favour of maintaining this weighty and forceful line of defence in a young country that had just gained independence. A number of sympathetic countries of the Muslim area, which perceived Kazakhstan as a kindred country, even offered support in maintaining the first “Muslim nuclear weapons”. The President of Kazakhstan later said that after the collapse of the USSR, Kazakhstan had specialists, the necessary infrastructure for the introduction of military nuclear programs and the delivery systems. According to him two decades ago, the emergence of Kazakhstan as a new nuclear power was only a matter of political will and time. “But we showed political will and, in principle, unconditionally renounced membership in the nuclear club. Despite the tough opposition of the then Soviet leadership of the military-industrial complex, I signed a decree on the closure of the landfill. The day of August 29 became the point of record of the acquisition of the status of a region free of nuclear weapons throughout Central Asia” the president stressed (Zakon.kz 2012). The Head of State noted that Kazakhstan also voluntarily abandoned the world’s fourth largest nuclear potential, inherited from the Soviet nuclear machine: “it was over a hundred ballistic missiles, with 1200 nuclear warheads capable of reaching any point on earth”, Nazarbayev added.

In the context of global confrontation and international turbulence, high conflict potential and the desire to achieve the goal at any cost according to the Machiavellian strategy, Kazakhstan assumed a noble mission. It was the first to voluntarily give up a very weighty argument in world politics—the “nuclear club”. Kazakhstan also symbolized the popular psychology of peace and the primacy of mutual understanding over the ideology of confrontation. For traditional nomads, the most important concept is self-esteem, which doesn’t mean superiority over someone but rather the desire to establish a dialogue, to get to know another, to become a friend to him and to appease a guest.

In March 2016, at the anti-nuclear summit in Washington, Nazarbayev, the President of Kazakhstan announced the manifesto “The World. The 21st Century”. The world media reported that according to the decision of the UN Secretary General Ban Ki-moon, the manifesto was given the high status of an official document of the two main organs of this world organization—the General Assembly and the Security Council. This was seen as a very important recognition of Kazakhstan’s initiatives. In the emerging global anti-nuclear movement, Kazakhstan’s manifesto “The World. The 21st Century” has become the main policy document for all member states of the United Nations.

The document describes that more than 60 years ago, outstanding scientists Albert Einstein and Bertrand Russell made a manifesto in which they formulated “a harsh, terrible, and inevitable question: should we destroy the human race, or should humanity give up wars?” (Einstein-Russel 1955). The great scientific minds of the twentieth century prophetically warned people that if nuclear weapons were used

without fail in a future world war, it would potentially destroy all life on the planet. Their warning that all disputes between states cannot and should not be resolved through war remains highly relevant in the twenty-first century. To eradicate war is the most difficult task of mankind. But mankind did not have any other reasonable alternative. This task should be considered by world leaders as an absolute priority compared to other issues on the global agenda.

In the twenty-first century, humanity needs to take decisive steps towards self-demilitarization. Otherwise, there is a stark but nonetheless realistic potential that the planet will turn into a repository for radioactive materials. Our planet is unique, we do not have another such planet and we never will. Therefore, mankind needs a comprehensive Program “21st century: a world without war” (Akorda.kz 2016).

4.3.3 Case 3: Nuclear Industry of Kazakhstan

Currently, about 80% of global uranium products are produced by five countries—Russia, Australia, Canada, Niger and Kazakhstan. According to the Minister of Energy Kanat Bozumbayev, Kazakhstan is the World leader on uranium mining and it covers 39% of requirements of world nuclear power. In 2016, the country produced 24,700 tons of uranium, which is 76% more than in 2009 (The Atomic Company “KazAtomProm” 2017).

Uranium extraction in Kazakhstan is carried out by 12 companies, including 11 joint ventures with Russia, China, France, Canada, Japan and Kyrgyzstan. At present, mined uranium in Kazakhstan is fully exported to other countries, and primarily to China. “The Kazatomprom enterprise includes joint ventures with companies from Canada, Japan, China, the Russian Federation, and the share of participation of the national company Kazatomprom is from 30 to 65%”—informed Minister of Energy of Kazakhstan Kanat Bozumbayev (Zakon.kz 2017). He recalled that there is no sale of uranium products in the domestic market.

The nuclear industry in Kazakhstan is one of the most promising resource sectors in terms of developing technological potential, both in the industry and in the country as a whole. Uranium is a strategic raw material for the nuclear power industry and has limited reserves. Positively, Kazakhstan has the second largest natural uranium reserve in the world, with 12% of all explored deposits. The country’s reserves are estimated at more than 800 thousand tons, whilst the global total of reserves and resources is 1,4 million tons. This leaves Kazakhstan with significant competitive advantage over other countries. Moreover, it is noted that if this resource is managed rationally, in the next 50–80 years, Kazakhstan will have an advantage over economically developed countries, “where natural resources are less significant and are significantly exhausted”, said the Minister of Energy Kanat Bozumbayev (Zakon.kz 2017).

In the Kazakh everyday consciousness, the dominant concept of “tirshilik” emerges, which means the requirement of existence in the name of continued life, meeting the needs of the family and children. For Kazakh nomads, the family is an

absolute value. “Balasyz uy mazar!” or “Without children, the home is a grave!” “Tirshilik” denotes the material existence of man, the survival in the harsh conditions of nomadic life. It relies on the spiritual basis of interpersonal relations, their moral and ethical content. The categories the “tirshilik” or “existence” and “omir” or “human being” are mutually connected. To exist physically means to be, to be held in a spiritual sense, i.e. meaningful, self-aware human activity.

4.3.4 Case 4: Nuclear Fuel Bank

In accordance with the Agreement of the International Atomic Energy Agency (IAEA), the President of Kazakhstan agreed to locate the Nuclear Fuel Bank in Kazakhstan (U.S. 2017). Situated in Eastern Kazakhstan and opened on August 29, 2017. Proponents advocated the creation of a repository as a vital security measure during the escalation of international tension regarding the proliferation of nuclear technology. It is envisaged that the Ulba Metallurgical Plant in Ust-Kamenogorsk, located near the Chinese border, will store 90 tons of low-grade enriched uranium. This amount of fuel is sufficient for one nuclear power plant to operate without interruption for about 3 years. The project cost is 150 million US dollars and was implemented with the financial support of the American billionaire Warren Buffett. Buffett contributed \$50 million on the proviso that donor countries collected another \$100 million. The USA allocated 49.5 million dollars; the European Union gave 29.1 million, the United Arab Emirates 10 million, Kuwait 10 million, Norway 5 million and Kazakhstan 400,000 dollars (Халабузарь 2017).

For Kazakhstan, the repository is a chance to win international benevolence and to strengthen the country’s critical role in nuclear power. There are already a number of nuclear fuel banks in the world. One, created in 2010, is in neighboring Russia. Proponents of the project say that the IAEA’s control over the Kazakhstan’s repository ensures its neutrality, a vital element in the super-sensitive nuclear industry. Mohamed ElBaradei, Nobel Peace Prize winner and former head of the IAEA, said the new fuel bank was “a high point in the efforts of the international community to reduce the nuclear danger and strive to create a safer world” (Халабузарь 2017). Indeed, the presence of the Nuclear Fuel Bank in Kazakhstan actually helps to reduce nuclear tensions between countries, as it allows low-grade enriched uranium from the Bank in Kazakhstan to be used for peaceful purposes, without being suspected by international observers.

The topic of creating a bank in Kazakhstan for a long time has been a source of serious discussions in Kazakhstani society (Информационная система ПАРАГРАФ 2011). First, many have put an equal sign between a nuclear fuel bank and a nuclear waste storage. Secondly, there was no experience of implementing such projects on an international scale, although a number of banks of nuclear fuel were created in the world. Amongst the mechanisms of guaranteed supplies of low-enriched uranium, created with the approval of the IAEA, mention should be made, for example, of a guaranteed physical reserve of LEU of the Russian Federation

stored at the International Uranium Enrichment Centre in Angarsk and guaranteed provision of enrichment services for LEU in the UK. Own stock of LEU is also available in the USA. The IAEA experts believe that the site of the Ulba Metallurgical Plant, chosen as the location for the LEU bank, fully complies with safety criteria. The company has 60 years of experience with uranium hexafluoride (by 1986, up to 600 tons of low-enriched uranium dioxide powder and about 1000 tons of fuel pellets per year were produced here), appropriate infrastructure and qualified personnel and a reliable physical protection system. In addition, the Ulba Metallurgical Plant's IAEA safeguards regime has been operating for over 20 years. According to supporters of the project, the creation of the LEU bank will be an important step in the process of nuclear non-proliferation, and Kazakhstan will be a prominent participant in the peace initiative (Shaternikova 2019).

The nomadic Kazakhs not only strove for peace, but also reconciled other nations, always striving to create opportunities for good and sincere conversation. In Kazakh culture, there is a tradition of *Asar*—helping fellow tribesmen in building a house or supporting a difficult task.

Kazakhstan belongs to the category of countries that have decided to implement a nuclear energy program and are actively creating the necessary infrastructure.

Today, Kazakhstan has ratified a number of international agreements that allow to establish broad cooperation with the countries that are the main developers and suppliers of nuclear technologies (Karenov 2016: 20).

4.4 Conclusion

The modernization of the Kazakh society broke many of the threads that held the traditional clan communities together, but in the minds of the people, old paradigms are preserved and reproduced in a new way to answer new and current challenges. It seems that the current Kazakh challenge is how to use or adapt traditional Kazakh ethical principles to the tasks of social modernization whilst also being aware that globalization erodes cultures by unifying social standards and ethical norms.

It is the task of the national intelligentsia of our generation to adequately reconstruct and transmit the traditional ethical code and social ties, as mentioned above, and to create synergistic opportunities for young people to become involved in advanced models of culture and social development. It is hardly possible today to write a new national ethical code, to distribute it amongst people and to ensure that it is read. Instead, having studied the national, tribal traditions already approved by many generations of the Kazakhs, and noting their cultural embeddedness, it is more effective to use their positive principles to strengthen the nation today. Kazakhstan (as with many countries in the world) needs the modern ritualization of social life; modern national ethical traditions; informal, ethnically shaped social norms; and standards that would distinguish the country from other nations and strengthen its own unity. Global and comparative forms of philosophy, as set out in

this edited volume, can further exchange insights in how preserving strengths from ancient cultures locally and adapting and matching them with worldwide tendencies.

Today, it is important for the Kazakh nation to maintain self-awareness of a single family and pride in its own culture and history if it wants to stand in the face of global competition of ethical meanings. “Birlik bar zherde - tirlik bar”, “In unity, strength and ability to act”—this is the formula for the Kazakh success. This formula was left to the Kazakh people by their ancestors, and they need to culturally convey it to their descendants.

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