

Invisible Hand

Invisible Hand

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Table of Contents

Overview	04
Theory part	05
Japan's Current Capital Punishment	06
Intent for Punishment and Crime	10
Human Body and Nature	13
Justification of Punishment and its Applications	15
Being Human and Others	17
Invisible Hand	17
Trial by Ordeal – devine Nature –	19
Conclusion	22
List of References	23
Installation part	27
Brain Storming	28
References	29
Concept Sketch	30
Modeling	31
Prototyping	32
Assembly	33
Frame Creation and Testing	34
Finished Installation	35

Overview

Invisible Hand is a project consisting of a theoretical investigation of the three trigger buttons for the death penalty still practiced in Japan and an installation representing a death chamber that embodies its ritualistic setting inspired by the theory. The execution is currently carried out with three buttons that each executioner presses simultaneously to trigger the hanging machine. However, only one button will be functioning and the other buttons are just dummies to reduce the guilt of the executioners by keeping the subject of the act anonymous.

In the theoretical part, the history of the current Japanese death penalty system and the architectural structure of the death chamber are first examined. Then, focus on the concepts of intention and action (consequence), which are commonly associated with criminal code and punishment, and consider the dichotomy of human and nature behind them. After looking at the historical changes in the methods of punishment and the theoretical justifications for their legitimacy, examine whether the previous dichotomy is still adaptable. Finally, take up the example of Trial by Ordeal and concludes with the meaning of the Invisible Hand, by referring to the connection between nature's punishment of humans, which was a manifestation of God's intention, and the current penal system.

The installation is a kinetic sculpture based on a cylindrical iron frame, with two objects resembling witch brooms placed above and below, and the upper broom descends at random times to press down on the lower broom and return to its original position. The witches' brooms was inspired by Moira, the three goddesses of human destiny in Greek mythology, who later appeared as the three witches in Shakespeare's Macbeth. Besides, this is also to imply that an action is taking place that is not intended by man, i.e., a magical action is taking place for the execution.

And here they say that a person consists of desires,
and as is his desire, so is his will;
and as is his will, so is his deed;
and whatever deed he does, that he will reap.

— Brihadaranyaka Upanishad

Japan's Current Capital Punishment

Capital punishment in Japan is still in force and has been carried out 713 times after the second world war ¹. Although the number of executions in 2020 dropped to zero for the first time in nine years since 2011, as of July 2021, 110 people sentenced to death are still being held in detention houses across the country until their execution. Under the current Japanese law, there are 18 crimes for which the death penalty is applicable ², and the verdict is based on a combination of this and past precedents. But it is generally believed that the death penalty is likely to be imposed for the murder of three or more people ^{3,4}. The execution is currently implemented using multiple button switches that each executioner, a state employee who usually works as a prison guard, pushes simultaneously to trigger the hanging machine. However, only one button will be functioning and other buttons are just dummies to reduce the feeling of guilt for the executioners by keeping the subject of the act anonymous. These settings assumably originated in the blank cartridge used for the execution of deserters inside military units in world war I and II in various areas ^{5,6,7}. Members of the firing squad were issued weapons, although one of them contains a blank cartridge to reinforce the sense of diffusion of responsibility for the killing of compatriots. The existence of the possibility that your action might not cause the death of the condemned person might comfort their minds, at least it is supposed to. The death penalty has already been abolished in many countries, although in some countries it is still legitimized as the maximum penalty due to the violation of a certain law. But of course, in reality, the law itself cannot

execute a convicted criminal on its own. So human intervention is always required, even if the method of execution varies from era to era and country to country. In Japan, the judicial hanging was officially devised in 1873 at the beginning of the Meiji era (adopted in 1880), at the time societal upheaval was taking place in Japan and its traditional governmental system was being drastically changed by opening up to the western world in particular ⁸. The government declares a new penal code, in which the structure of the scaffold for the hanging was designed ⁹. Before this reform, various cruel methods of capital punishment were used, such as beheading, fire-roasting, turning, bleaching, and crucifixion during the Edo period (1603-1867) ¹⁰. The most common execution was beheading, which in this case was performed by a town magistrate ¹¹. Under the new code only hanging is allowed for capital punishment and this is also the case under the current law ¹². And the code defines the punishment as follows;

The death penalty shall be carried out by hanging in a penal institution. (Article 11, Paragraph 1 of the Penal Code). Specifically, the floor on which the person to be executed is riding is opened and the person to be executed falls down, at which time the rope around his or her neck causes the person to die under his or her own weight (step-board opening and falling method)

(Grand Council of State Proclamation No. 65 of 1873).

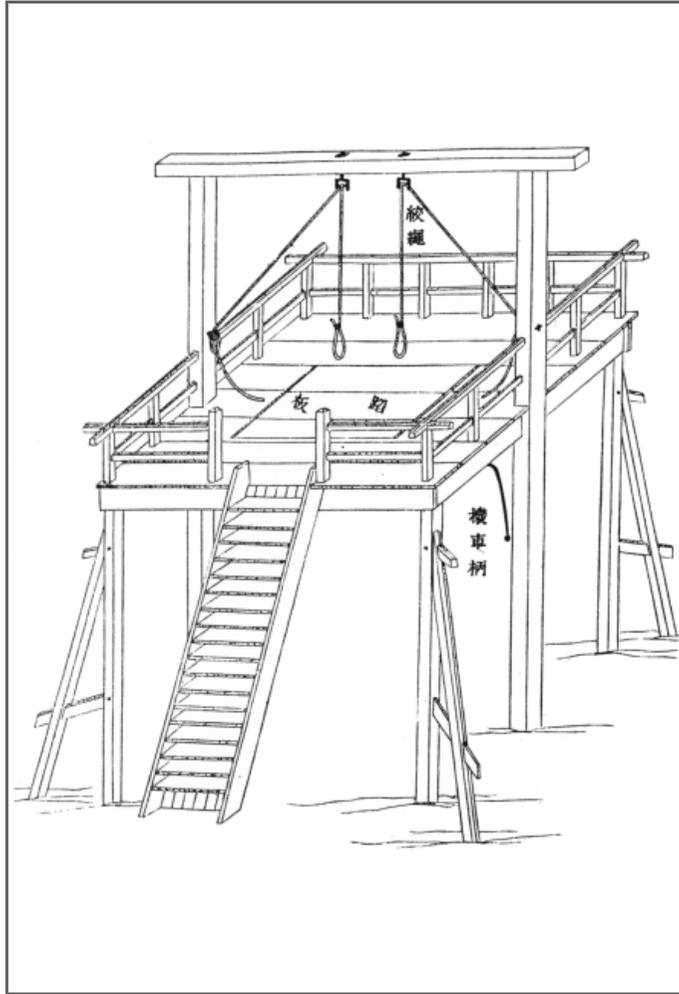


Figure 1.0 Japanese scaffold structure for the execution designed in 1873

In the meantime, the official drop table was developed by the British home office at the end of the 19th century, which defines the appropriate length of the rope depending on the weight of the body, aiming to make the method of hanging effective and spare the convicted criminal unnecessary pain. This type of long-drop or measured drop method is propagated in various countries, including Japan¹³. After WWII, under the rule of GHQ, the government enacted the Japanese Constitution and underwent major democratic changes, but did not make any major changes to the death penalty as the allies still retain capital punishment in the aftermath of the war¹⁴. In the 80s, the abolition of the death penalty gained momentum particularly in Europe¹⁵, and many countries went on to abolish the death penalty and also in Japan the criticism of the method of hanging or even the entire capital punishment raised constantly though, it didn't become a major public opinion and actually the majority of Japanese, nearly 80% accepts the adoption of the death penalty and its rate has been slightly increasing in the last decades¹⁶.

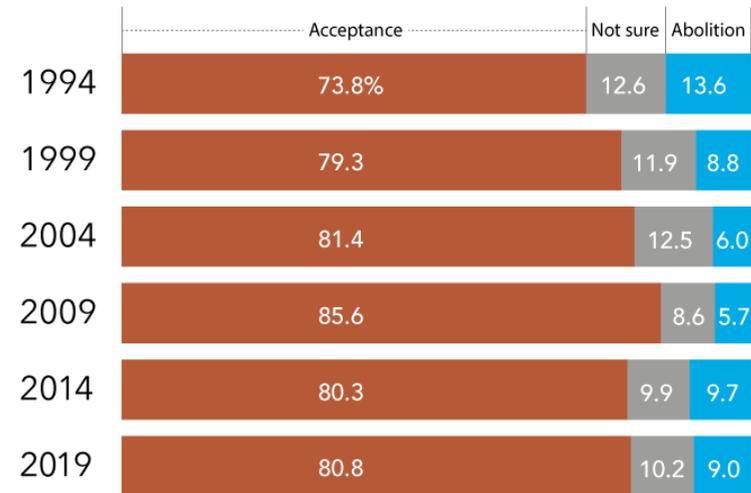


Figure 2.0 Public opinion on the death penalty in Japan

There are 7 detention houses where the execution can be implemented in Japan distributed throughout the country ¹⁷, although their internal structures slightly vary depending on the buildings. The images below are plans of the execution chamber in the Tokyo detention house.

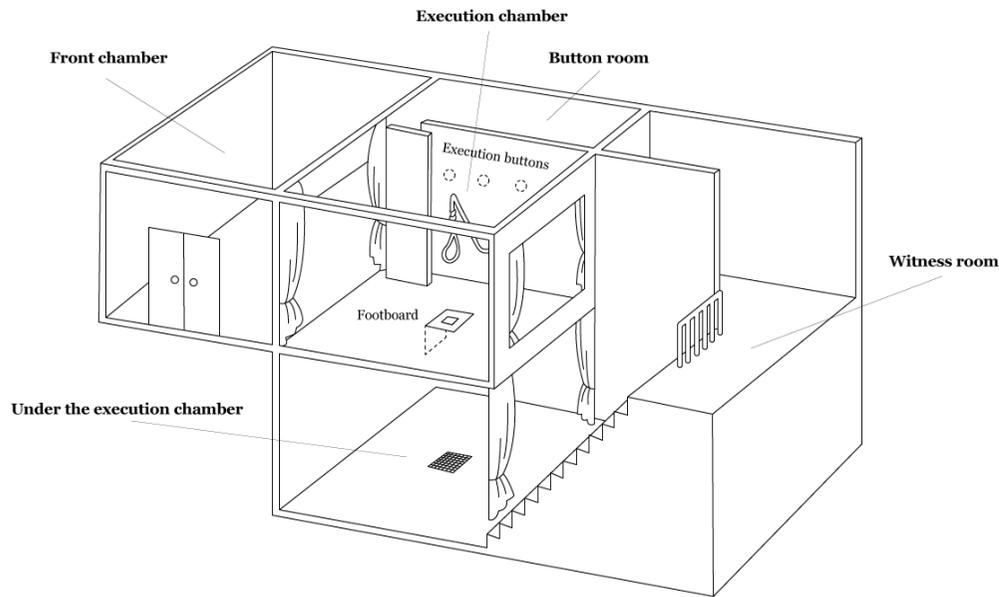


Figure 3.0 Execution chamber in the Tokyo detention house (3D view) ¹⁸

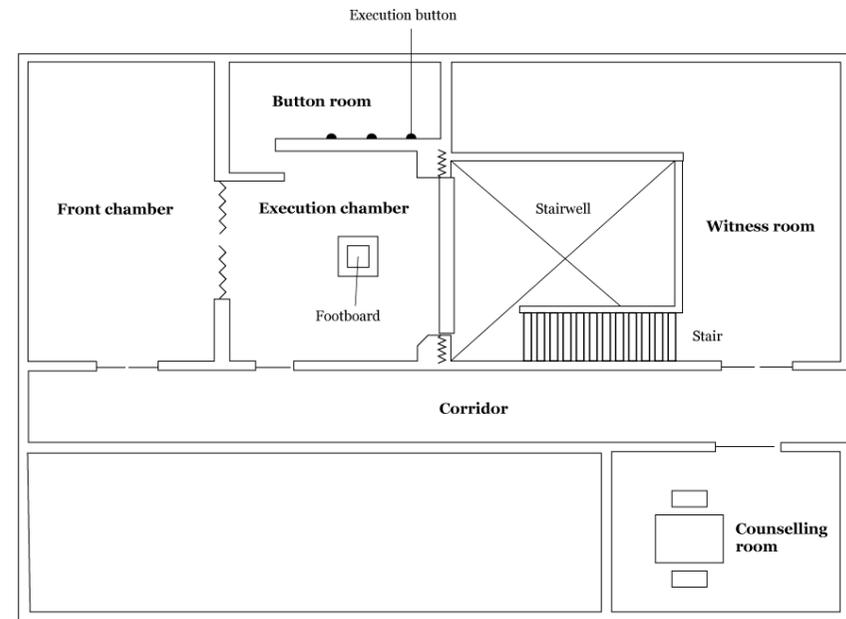


Figure 3.1 Top view

A condemned criminal cannot know exactly when the execution is scheduled. The time between the death sentence and the execution depends on the decision of the Minister of Justice at the time and the health of the condemned criminal, but it is said to be five years on average, with the longest ever being 18 years and five months¹⁹. On the execution day, he/she, in a solitary cell, is called suddenly by several prison officers and marched into the chaplaincy room (Counselling room in the images). A chaplain recites sutras in front of a Buddha statue by his side in the room. Then he is taken to the footboard in the execution chamber and handcuffed behind his back, his legs are also strapped and restrained. He is blindfolded and a rope is placed around his neck. Lastly, he is asked if there is anything left to say. As soon as it is done, a signal is lit and the execution buttons are pressed. The executioners who trigger the buttons won't see the execution directly, since the execution chamber is walled off from them. Five minutes after the doctor confirms the criminal's death, the body is lowered to the floor and placed in a coffin²⁰.

For the psychological state of all those who are in some way involved in the execution and share this gruesome sight, the anonymity of the execution, realized with the deliberately designed architecture, may be helpful for them to a certain extent. It may reinforce the impression that "the execution cannot be helped", since the doer to be stopped doesn't exist. Apart from that, the punishment should be differentiated from killing as an appearance, which is the very reason for the punishment, and it cannot be a reenactment of the person-to-person killing. The anonymity allows the authority to execute as if it's carried out by an invisible administrator, which is to say, the law judges the condemned in the name of justice through the machine. It is also relevant to

note that the force that makes hanging possible is the gravity and human weight of the condemned, something that no one else can be involved in.



Figure 4.0 Buttons used in Tokyo detention house

Intent for Punishment and Crime

The execution is triggered with button switches. Three switches are lined up in a horizontal row, in front of which the executioners stand and press them at the same time. Among the various interfaces, button switches enable a purely binary interaction that can be triggered regardless of what state of mind the executioners are in. Compared to classical execution methods such as beheading, swords and ax transmit the executioner's fear and trepidation to them, while the button switch cancels fluctuating human emotion as noise. Moreover, the button switch requires no skill or ability on the part of the executioner and anyone can carry out the execution without touching the condemned by wiring the tactile switch to the footboard. Once the button is pressed, one's "signal" is transmitted through electricity traveling at the speed of light. It is ultimately decisive and the possibilities of the accidental cause or any interruption are carefully eliminated to trigger it through complete Human intent. This setting cannot be implemented naturally or by chance. For that purpose, the procedure of the execution is carefully structured with a strict manual. But the requirement that capital punishment necessitates intentional triggering has the side effect of creating a bizarre situation. An American philosopher, Robert Nozick pointed this oddity out in his book "Philosophical Explanation" written in 1980.

The conditions demarcating retribution explain what otherwise appears to be a ludicrous phenomenon. If someone sentenced to death falls perilously ill or is accidentally injured or attempts suicide the day before the scheduled

execution, then the execution is postponed and measures are taken to bring the condemned person back to health so that he then can be executed. Although due-process reasons might be conjured up for this, I believe the reason is that his punishment is to involve something's being visited upon him by others because of the wrongness of his act. His death by natural causes or by his own hand would avoid this, so measures are taken to restore him for punishment.²¹

The condemned criminals, as Nozick claimed, ought to be punished by legalized and authenticated human intent and punishment cannot be achieved by the convicts themselves or the natural cause such as disease. In fact, certain solitary cells, called "自殺防止房 (Suicide prevention rooms)" for condemned criminals in Japanese detention houses are equipped with a camera to prevent them from committing suicide²². Besides that, Article 479(1) of the Code of Criminal Procedure states that "if the person sentenced to death is in a state of insanity, the execution shall be suspended by order of the Minister of Justice". Detention houses are staffed by psychiatrists and prison medical officers who care for prisoners on death row, and annual medical examinations are carried out. (However, some have questioned the transparency of this care²³). Given the consequences of the death penalty, the physical and psychological care of these condemned prisoners seems almost insane, even though it's necessary. The detention houses for death row inmates exist to keep them alive and healthy so that they can be killed in a lawful way.

The differentiation between natural death and death by punishment has appeared in some aspects of history in a very radical way. For example, Oliver Cromwell who was an English general and led armies of the Parliament of England against King Charles I during the English Civil War was executed in January 1661 on the orders of Charles II, although he has already died of the natural causes on 3 September 1658. His corpse was disinterred from the grave and displayed in public with two other corpses and then beheaded. Records of such posthumous executions have been preserved, especially in the early modern period^{24,25}. Also in Japan in 1838, the corpses of Oshio Heihachiro and his followers, who attempted to overthrow the central shogunate, were crucified. They had died a year earlier by suicide after a failed rebellion, but it is said that this was done because of a widespread belief that they were still alive²⁶. Most posthumous executions may have had a ritualistic significance, a little removed from our own time, but the basic reason for such punitive deaths - punishing people with human intentions - seems to be related to how we perceive guilt in general. Consider two different cases: In one case, you are standing on a crowded train that is so full that you can hardly move. When the train comes to a stop, the shoulder of the person next to you bumps against yours. However, you do not think this was intentional, say nothing and continue your journey. In the second case, you are standing on a train with very few people on it. A man walks up to you and bumps you on the shoulder. You may be angry and say something to retaliate, or you may be afraid and remain silent. In any way, however, you feel the hostility or malice coming towards you. A distinction is made between accidental and intentional acts, the latter being culpable and the former not, or at least rarely so perceived. If we think of guilt and punishment as two sides of

the same coin, as stated by the principle of "an eye for an eye", we can see that whether an act was done intentionally or not works as a factor in establishing them. In general criminal law, there are two notions which measure the culpability of a specific crime, "Actus Reus" and "Mens Rea" that are derived from the principles set forward by Edward Coke in his "Institute of the Laws of England" published in the 17th century. In his explanation, there are two elements which must be present in order for a crime to exist, one is Actus Reus, guilty act and Mens Rea, guilty mind. "actus non facit reum, nisi mens sit rea (An act does not make a person guilty unless the mind is also guilty)."

The emphasis of the maxim is on the unity of the volitional act(s) or omission(s) component of the actus reus and the mens rea. Stated differently, one does not incur criminal liability for one's volitional criminal act(s) or omission(s) alone, nor for one's criminal mentality alone; rather, it is only where there is a temporal coincidence between one's criminal act(s) or omission(s) and one's criminal mentality that liability attaches.²⁷

A crime can only be committed when the criminal act itself and the intention of the person committing the act occur simultaneously. The lack of Mens rea could result from a mental disorder or mental illness of defendants at the time of the criminal act and in that case, the liability is mitigated accordingly²⁸. As the mental state of a convicted person is questioned for the punishment, it's relevant for the question of guilt as well to confirm Mens rea. Infants are also excluded from criminal liability for their actions, since the responsibility for a crime is based on "capacity and reason sufficient to enable him to distinguish right

from wrong as to the particular act in question" ²⁹. The immaturity of the mental state also leads to the absence of Mens rea. These ideas seem to be based on our common sense, which says that our actions are the result of our intent, and if the intent is not present, not controllable, or not sufficiently formed for some reason, no responsibility is taken for the action. Suppose you are standing in front of a newborn baby. The baby is crying with all the strength they can muster. Can you dare to feel resentment towards the baby and complain to it? No, you can't, knowing that this is a "natural" phenomenon. Newborn babies can neither be guilty nor punishable due to the lack of the agent that controls the body. As we've already seen that the death by natural cause cannot be a punishment, the natural phenomenon cannot be guilty either, i.e. "Nature" can neither be guilty nor punishable. In this day and age, when the era of viewing the world through religion is over, one can mourn the misfortune of those who die in natural disasters, but one does not usually associate it with guilt and cannot punish nature afterward. And in the first place, we do not know what it means to punish nature. Only a mature and sound "Human" can take this position. The classic human-nature dichotomy appears here.

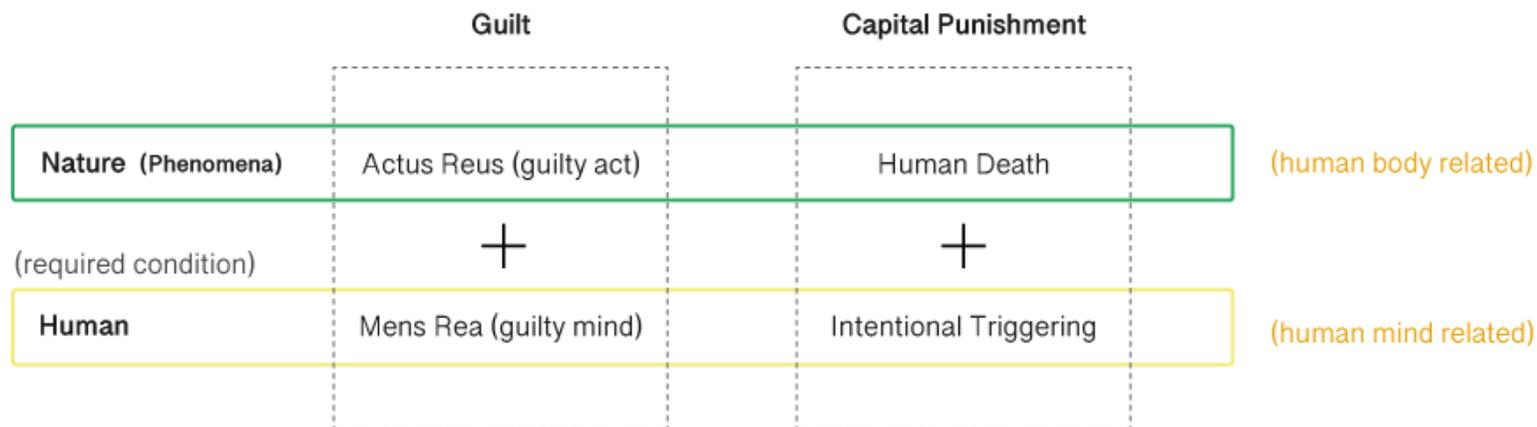


Figure 5.0 Nature / Human diagram

Human Body and Nature

As the diagram shows, "Nature" is concerned with the phenomena of human action or physical condition and is therefore associated with the human body. The term "Human", on the other hand, refers to the human will, which is invisible in contrast to the human body and is therefore associated with the human mind. But as the development of modern psychology proves, the human mind is highly influenced by the physical state and vice versa, so this clear division is conceivable when criminality and its punishment are inquired. And even in reality, the factors surrounding a convict intertwine with the motive for the criminal act, making it unclear how far a person's free will can be extended, which is why this is often a major point of contention in court. Additionally, the methodology of the assessment of criminal responsibility and mental impairment also remains controversial³⁰. However, the point here is that without these two independent notions and the proof of intent to commit a crime, guilt and punishment cannot be realized most of the time. An exception is a negligent homicide, i.e. the killing of a human being without intent, such as accidentally running people over with a car, which can legally be considered culpable. But even in this case, Mens rea is measured and the penalty is reduced accordingly. In the totally opposite case, such as only an intent to commit a crime, no charge cannot be brought, since the consequential infliction is a basis for the judge of a crime and only the existence of Mens rea cannot enable it. The exception can possibly only be a religious transgression, as the famous passage says;

But I tell you that anyone who looks at a woman lustfully has already committed adultery with her in his heart. (Matthew 5:28)

Throughout history, punishment has included brutal torture, public executions and the infliction of almost unbearable physical pain. However, such common punishments have taken a major turn since the establishment of the new criminal codes in many European countries in the late 18th century; Russia, 1769; Prussia, 1780; Pennsylvania and Tuscany, 1786; Austria, 1788; France, 1791³¹. The scaffold, on which convicted criminals were publicly executed, was gradually abolished, and in the 19th century, the modern legal and penitentiary system was developed so that punishment itself became invisible to most citizens. Michel Foucault pointed in his book "Discipline and Punish"(1975) that punishment in this era shifted from the infliction of physical pain to the infliction of psychological pain.

*If the penalty in its most severe forms no longer addressed itself to the body, on what does it lay hold? The answer of the theoreticians - those who, about 1760, opened up a new period that is not yet at an end - is simple, almost obvious. It seems to be contained in the question itself: since it is no longer the body, it must be the soul. The expiation that once rained down upon the body must be replaced by a punishment that acts in depth on the heart, the thought, the will, the inclinations. Mably formulated the principle once and for all: 'Punishment, if I may so put it, should strike the soul rather than the body'(Mably, 326) .
(p16)*

A 'soul' inhabits him and brings him to existence, which is itself a factor in the mastery that power exercises over the body. The soul is the effect and instrument of a political anatomy; the soul is the prison of the body. (p30)

If a person's guilt arises from the fact that the subject of the action, in Foucault's terms "soul", controls his or her body and commits a crime, it is legitimate for the punishment to be inflicted on the soul. For it is not the body that is sinful, but the soul. As we have already seen from the diagram, only the acts related to the human body can neither be completely guilty nor punished. Suppose a vicious murderer uses his left hand to brutally kill a person. Generally or at least in our age, we do not think that this left hand is guilty. We criticize the merciless and brutal Human (soul) which controls this left hand. Often serial killers in newspapers are only shown with their faces facing the camera. We don't see the faces just as a mere body part, we see them as a Human (soul) who controls the body through the pictures. Perhaps we see in the human face its role as the master who is in control of its body, just as you see in that person's face when you express anger at him/her, for example.

Joanna Dennehy: serial killer becomes first woman told by judge to die in jail

Judge told the murderer of three men she was 'a cruel, calculating, selfish and manipulative serial killer'



Joanna Dennehy was driven by a 'sadistic lust' for blood, stabbing three men to death. Photograph: AP

Figure 6.0 A serial killer photo in the newspaper: Image by The Guardian "Joanna Dennehy: serial killer becomes first woman told by judge to die in jail"

In general, violating the law is not only a matter of being judged because of the danger it poses within that state, but violating the rules of a state, even if they are harmless, is damage to the authority and dignity of that state. Therefore, executions are not only judicial but also political. In that sense, before the modern era, public executions had the meaning of demonstrating the power of the state ³². With the rise of human rights awareness in the 19th century, it became more future-oriented, encouraging prisoners to reintegrate into society by correcting atrocious human nature through punishment, and had a strong role as rehabilitation. Under such social tendency, penalties that simply inflict physical injury, such as flogging, have been revised, and such corporal punishment has been abolished in many countries. The death penalty is not included in corporal punishment as a legal term though, this is the only form of the punishment causing direct physical harm allowed in Japan.

Justification of Punishment and its Applications

The reasoning of punishment can be commonly classified into two categories, Consequentialism and Retributivism. Consequentialist accounts regard "punishment as justified instrumentally, as a means to achieving some valuable goal ³³", e.g. it reduces crime by deterring, incapacitating, or reforming potential offenders. It justifies the punishment as means and its efficiency as a social system. In contrast, retributivism can be described as something we intuitively understand by punishment, namely, that those who commit wrongful acts, especially

serious crimes, should be punished even if punishing them would bring no benefit. This basically means that they do wrong and therefore should be punished. In that sense, retributivism is fundamentally a tautological rationalization of punishment and it has a symmetrical relationship between the crime and the punishment imposed. Compared to the viewpoint of consequentialism, the idea of retributivism has been a prevailing idea that was widely spread throughout human history, such as the law of Moses ³⁴, Code of Hammurabi and deontological theory often associated with Kant's contention. These two pillar concepts have branched out into various topics, sometimes intersecting and overlapping with each other depending on the proponent, and in modern times some have called for the abolition of legal punishment altogether, seeking to replace it rather than justify it, which could lead to the complex debates ³⁵. Broadly speaking, however, attitudes toward punishment have been historically shifted, or at least expanded to include the idea of a consequentialist perspective from retributivism as the modern penal system has been constructed. This forward-looking tendency has been radically reflected in specifically Scandinavian countries in recent decades in the form of a new prison design and the reform of its system, e.g. a Norwegian prison in Halden fully renovated in 2010 with a focus on rehabilitation, which is equipped with a music studio, holy room, a gym and all aspects of the prison's design aim to avoid psychological pressures, conflicts, and interpersonal friction ³⁶. Also in Finland, there are lots of educational programs for prisoners in order to reintegrate them into society in the future ³⁷.



Figure 7.0 Communal common room in the Halden prison

As legal penalties, the penal system from consequentialism viewpoint tries to maximize the benefit, in the same manner, there is a form of the punishment functioning as a more active way to control behavior or induce certain decisions by environmental stimuli, these are specifically called operant conditioning or instrumental conditioning³⁸. In general, it is a behavioral analysis that involves observing how a particular reinforcement or punishment elicits a particular subsequent response, and this can be applied not only to humans but also to animals such as animal training. There is also a study of punishment in an animal society from an ethological point of view that tries to find a retribution system between them³⁹.

Being Human and Others

However, the fact that we can use the term punishment in such an expansive way does not mean that the punishment we apply to humans can also be applied to non-human animals. We cannot put animals on trial and convict them for attacking humans. For animals don't have "capacity and reason sufficient to enable him to distinguish right from wrong as to the particular act" ⁴⁰. At least "seemingly" that is so. One cannot punish something which is incapable of understanding why it's being punished. To imagine their execution in the same way as that of a human being is just insane. Of course, if a wild bear that lives in the mountains were to come down to the city and attack humans, this bear would have a fairly high chance of being shot and killed (even though protecting it and returning it to the wild is generally the ideal solution). However, the human way of dealing with such an animal is not punishment, but mere self-defense. When livestock or pets are painstakingly trained to, for example, attack their neighbors with the intent of the person who owns them, there is sin. This is almost self-evident, but it shows that if an object, whatever it may be, is controlled by human intention, the consequences it causes will make it the sin of the person who controlled it. And the controlled object is regarded as a "product" of humans. Also, the human's aggression towards other animals can be considered as a problem or even crime depending on the law ⁴¹, although animals preying on other animals is not really an issue to be punished. In conclusion, we can repeat the following simple and clear thing; it can only be human beings that can be guilty and punished.

It is almost humdrum to mention that a human being is embraced by nature. But when we control nature, we objectify it and by doing that we alienate ourselves from nature. Then it is no longer nature and something that can be sinfully dominated by human beings, e.g. genetic modification, cosmetic surgery, fabrications or fakes in documentary films, as if man curses nature by touching it. When we destroy the environment, we do not accept it as natural. This is not a disagreement with the general ecological idea, but only raises the question of why the estrangement between humans and nature occurs. If nature can be defined as something other than man, even if the earth were to perish and man were to disappear from this world, nature would remain. More specifically, only pure nature would remain because humans that control it would no longer be there and objectification would no longer take place. The seamless, infinite nature would be almost dizzying to imagine.

Invisible Hand

Japanese capital punishment is carried out without knowing the exact person who triggered the execution, as if an Invisible Hand switched the button for hanging. The term Invisible Hand was famously used by Scottish philosopher and economist, Adam Smith to represent that the actions of individuals without any

intention produce social profit, often understood as a symbol of free market capitalism ⁴².

[...] he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. ("The Wealth of Nations", 1776)

The term "Invisible Hand" can be seen as having religious connotations, but it appears that Smith uses this term without it to externalize the effect of the human action in the society – he doesn't write "the" Invisible Hand, but "An" Invisible Hand in his books ⁴³–. So Smith expected that economic activity would autonomously control its balance without human intention. In the context of the social theory, Karl Marx obviously makes a critical reference to this in "Estranged Labor" (1844).

[...] the object which labor produces – labor's product – confronts it as something alien, as a power independent of the producer. The product of labor is labor which has been embodied in an object, which has become material: it is the objectification of labor. Labor's realization is its objectification. Under these economic conditions this realization of labor appears as loss of realization for the workers; objectification as loss of the object and bondage to it; appropriation as estrangement, as alienation.

For Marx, the deprivation of the intent for the products by labors would lead to the alienation from the object they make. The theme he is arguing for is the system of modern labor society and its potential problems, which is different from the crime and punishment issue, but this can be applied to the subject in the sense that the intention of the executioner and the result, or product in

Marxian terms, of the death penalty are detached. Actually, general top-down organizations such as military units or administration offices are prone to such tendencies to clarify the chain of command. In this case, the death penalty is carried out in accordance with the penal code, which belongs to the state, and in this sense, the state's decision and power are transmitted to the executioner, who is the final practitioner. The chain of command and the people who actually carry it out are far apart, and in the meantime, responsibility, that is to say, who and what triggers the conclusive action is evaporated and in the first place, it is the law that makes such a provision, something "faceless". Therefore, capitalist societies and top-down organizations in general, where the intentions and actions of individuals are removed from them, function in a way that removes their liability. This can be seen as an indication of the fear that their actions with full intent will cause guilt in the society or group of people. Remember that the executioner and the condemned are separated by a wall so that the executioner cannot see the consequence of his actions.

Trial by Ordeal – devine Nature –

*He cried, "Wolf! wolf!"
— the neighbors heard, But not a single creature stirred.
"We need not go from our employ,
— 'Tis nothing but that idle boy."
The little Boy cried out again,
"Help, help! the Wolf!" he cried in vain.
At last his master came to beat him.
He came too late, the Wolf had eat him.*

'The Boy and the Wolf' by John Hokham Frere ⁴⁴

A shepherd boy, out of boredom, lies and says, "The wolf is coming!" and creates a commotion. The deceived adults come out with weapons, but to no avail. The boy tells the same lie over and over, so when the wolf really appears, the adults don't trust him and no one comes to help. Finally, the sheep are eaten by the wolf. There are some variations in the ending depending on the version, sometimes only sheep are just sacrificed, but sometimes the boy is also killed by the wolf. This is the well-known tale "The Boy Who Cried Wolf" and one of Aesop's fables. This short story illustrates the lesson of how a bad deed, lying, can get its reward on a person. As typified by Aesop's Fables, which originated in ancient Greece, various folklore anecdotes and folktales often have a didactic and educational aspect that those who do wrong will be rewarded. And remarkably, human or anthropomorphic animal characters are eventually punished in some way,

but the punishment is done quite rarely by humans ^{45,46}. If the boy who lies is not bitten to death by a wolf, but is angered and violated by the adult who was lied to, does that provide a similar lesson to readers as in "The Boy and the Wolf"? Probably not. This would undermine the authority of punishment by nature, which has internalized morality that exists apart from human will and the impact of the punishment for the boy will be reduced accordingly. What is important in such didactic stories is to show that morality and ethics are already embedded in nature and evil deeds will be naturally punished as they deserve. In this sense, punishment in these tales is an embodiment of the human desire that those who have done injustice should be punished consequently. And nature is endowed with a higher value because the relationship between nature and man is unilateral, that is, nature punishes man, not the other way around.

Such a natural view relating to punishment is found in a rather radical way in trial by ordeal, an ancient judicial practice in which a defendant is subjected to an ordeal that inflicts physical pain, and the result of the ordeal is used to determine the guilt or innocence of the defendant. In medieval Europe, for example, "hot and cold" ordeals involving water were common. In the "hot" ordeal, a cauldron is placed on the fire and boiled violently, then a small ring is thrown into the hot water, into which the accused puts his hand and tries to pull the ring out to prove his innocence, or in the "cold" ordeal, a bound person is pulled into the cold water and observed to see if he sinks indicating guilty or floats indicating innocent ⁴⁷. The English historian and medievalist Robert Bartlett generalizes the natural and divine requirements for trials, noting that the unilateral trials all required unusual behavior on the part of the natural elements: hot iron or



Figure 8.0 Water Ordeal; miniature from the Lucerne chronicle of 1513 ⁴⁹

water that would not burn the innocent, cold water that would not sink the guilty. God would intervene to prevent nature from taking its course ⁴⁸. For people in this age, nature is a manifestation of divine will and it can be controlled by God depending on the suspect's innocence. Here one must be reminded that Christ transcended death by wrongful crucifixion and resurrected.

The trial by ordeal has a long history and its origins can be traced back to the time of the Hammurabi Empire, the Old-Babylonian Empire and the Sumerian tradition ⁵⁰. In Japan, the traditional ordeal called, 盟神探湯 (Kukatachi) appeared already in the Chinese official historiography, Book of Sui written in 656 ⁵¹. Remarkably, the ordeal was almost identical to the one practiced in Europe during the Middle Ages, a stone was placed in boiling water and the one who picked it up unharmed was acquitted, and the guilty one's hand was sore. Barlett stresses that trial by ordeal in medieval Europe was not applied to any type of crimes, but only when there is no visible evidence on which to base a judgment, such as homicide, theft by night. Heresy, sorcerers and witches have also a similar "invisible" quality - it was about faith, and that is intangible ⁵². After the ban on ordeals by the Fourth Lateran Council in 1215 and their subsequent disappearance in the thirteenth century, the tradition of the liturgical trial by water survived in two forms, first the baptismal customs and second the ordeal used in witch hunts as Swimming of witches ⁵³, ⁵⁴. Johann Weyer, a physician to the Duke of Cleves-Jülich, wrote in his "De praestigiis daemonum" of 1563;

The fact that, when accused witches are thrown into water with their hands and feet bound, they never sink, but swim on the surface, is regarded by magistrates and police in many jurisdictions not as fallacious evidence, but as certain proof.

Despite the rarity of ordeals for common crimes thereafter, actual cases of the swimming of witches appeared in the sixteenth century at the beginning of the era of witch hunt⁵⁵. The association of witches with swimming seems to have stemmed from the idea that witches were possessed by daemons and therefore had no weight⁵⁶. This swimming ordeal has been frequently employed by the 16th century in many parts of Europe and it continued even until the beginning of the 18th century⁵⁷.

Innocence was tested through nature in the ordeal procedure so that the subsequent course of execution or acquittal is controlled by God's intention. Just as nature itself cannot punish human beings in the modern penal system – it requires human triggering –, punishment in the trial by ordeal cannot be carried out by nature alone – it requires God's intervention –. With the establishment of modern societies, religion was no longer involved in criminal punishments, and the reins of power became, or had to become, held not by God, but by humans. The anonymity of modern punishment implies the paradoxical human attitude that a person must control action from an indeterminate position that can be associated with crime, namely public murder, since the ultimate agent of nature no longer exists. Another common denominator is that their points of view appear to be quite different, although they have special confidence in the intent of the crime to determine a person's guilt. American historian Peter George Wallace points out the faith of people who persecute witches in his book "The long European Reformation" in 2004.

In the later Middle Ages Christian writers began to distinguish magical practices from religious rituals, accepting the efficacy of both but relegating magic to harmful or sinful

*behaviour. In this new mind set, magic was not wrong because it failed to work; it was wrong because it worked effectively for the wrong reasons, because the practitioner collaborated with demons who aided the magician or witch in doing harm.*⁵⁸

For modern people, witchcraft itself is an object of suspicion, but people at that time did not think so, they believed in witchcraft to blame it for the injustice of its application. Witches should be executed because they use their unjust power wrongly with malicious intent. Similarly, regardless of the procedure that the criminal law provided, the punishment of a convict necessarily assumes the ability that he/she committed a crime, meaning that he/she is a (sound) human being. As mentioned above, it was a prerequisite for criminals to be able to recognize the justification of their punishment so that it could be carried out. When people punish others, it implicitly sends the message that you recognize pain as I do, you recognize guilty as I do, and you understand the justice of the penalties as I do. As traditional Christian theology asserts that God created man in God's own image, human created human in human's own image.

Conclusion

From the three buttons used in executions in Japan, we've seen the history and background, the perspective from the criminal law, and the dichotomy between human beings and nature, while taking up the trial by ordeals to explain that the act of punishment itself contains a process of identification between human beings. If this argument can be extended, there are two broad paths: a philosophical discussion of how to view the transmission of human intentions through the tool of the switch, such as Heidegger's theory of tools, or touching on the possibilities and problems of crime and punishment in autonomous tools, especially in recent years, which are spoken of as AI technology. If the internet of things accelerates further in the future, and these devices communicate with each other in an intricate way while being given a "definition" of how to operate by humans, and they move almost without human intervention, it can be discussed whether we should view this as an omnipresent of human intentions or as a further alienation of humans from their environment.

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2. (1) The chief conspirator of the crime of civil disorder, (2) the crime of inducing external disaster, (3) the crime of assisting external disaster, (4) the crime of arson of existing buildings, (5) the crime of breaking up existing buildings, (6) the crime of immersion of existing buildings, (7) the crime of death by overturning a train, (8) the crime of aggravation of the result of the crime of traffic danger, (9) the crime of death by mixing with poisonous substances in waterways, (10) the crime of murder, (11) the crime of death by robbery, (12) the crime of death by rape by robbery, (13) the crime of using explosives, (14) the crime of death by dueling, (15) the crime of death by forcible seizure of an airplane, (16) the crime of death by falling of an airplane, (17) the crime of death by falling of an airplane, (18) the crime of murder by organization, Hostage-killing, organized homicide
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Installation

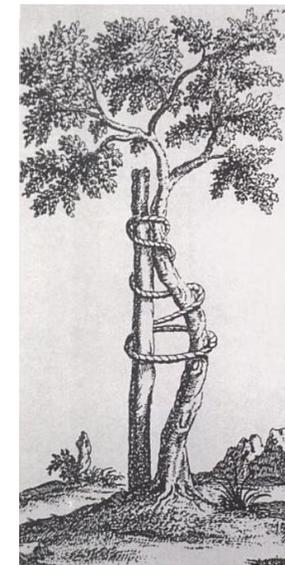


Brain Storming

At first, the idea for the installation was just a vague idea of something inspired by a button switch, and the specific size, materials, and technology required were unclear. I started with an image of the connection between human intention and nature's inaction, and then looked for an object that could correct a specific body from the outside, or at least transform the natural form into a specific shape through human intention, like plastic surgery and Yuki-tsure, which are placed in deep snow areas in Japan to protect trees from the snow. I also researched artworks that might evoke similar themes and imagery, and eventually the installation included my own interpretation of the death chamber for the Japanese death penalty. The use of witches' brooms as a motif was partly due to the fact that witches were mentioned in the thesis, but also because I wanted to incorporate natural materials into the installation, which meant that the initial idea of plastic surgery remained to the end.



“Yuki-tsure”, Kenroku-En in Ishikawa, Japan, 2015



Frontispiece of *Orthopaedia* by Nicolas Andry, 1741

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Concept Sketch

The first conceptual sketch was done using cad software and initially envisioned two witch brooms set up on sticks, with only the top broom moving up and down, and the bottom broom fixed to a chair. As for the principle of operation, I had initially planned to use a motor to achieve a delta-robot-like motion mechanism, but since the only essential motion is linear motion and the technology is a bit redundant for the purpose, and since the sound associated with the mechanical motion would be more ideal if I used a pneumatic cylinder with an air compressor, I dropped the initial motor idea.

Front view

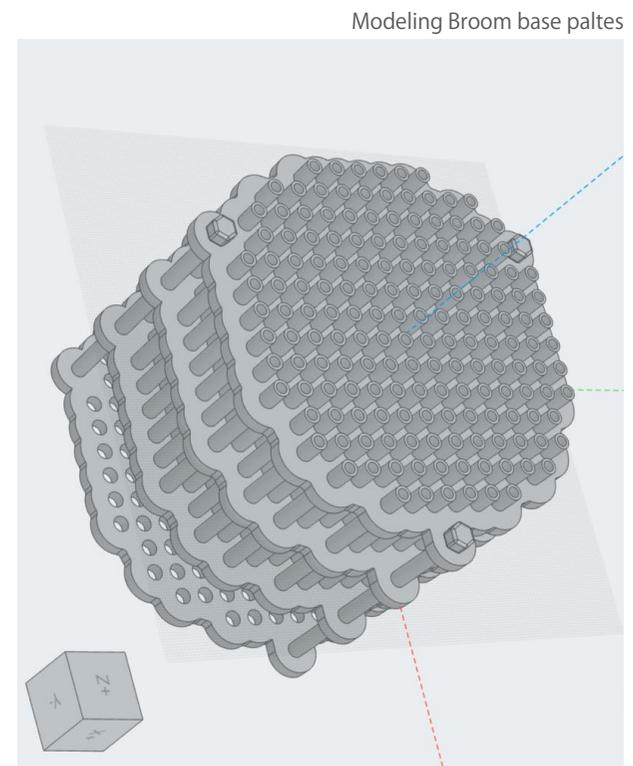
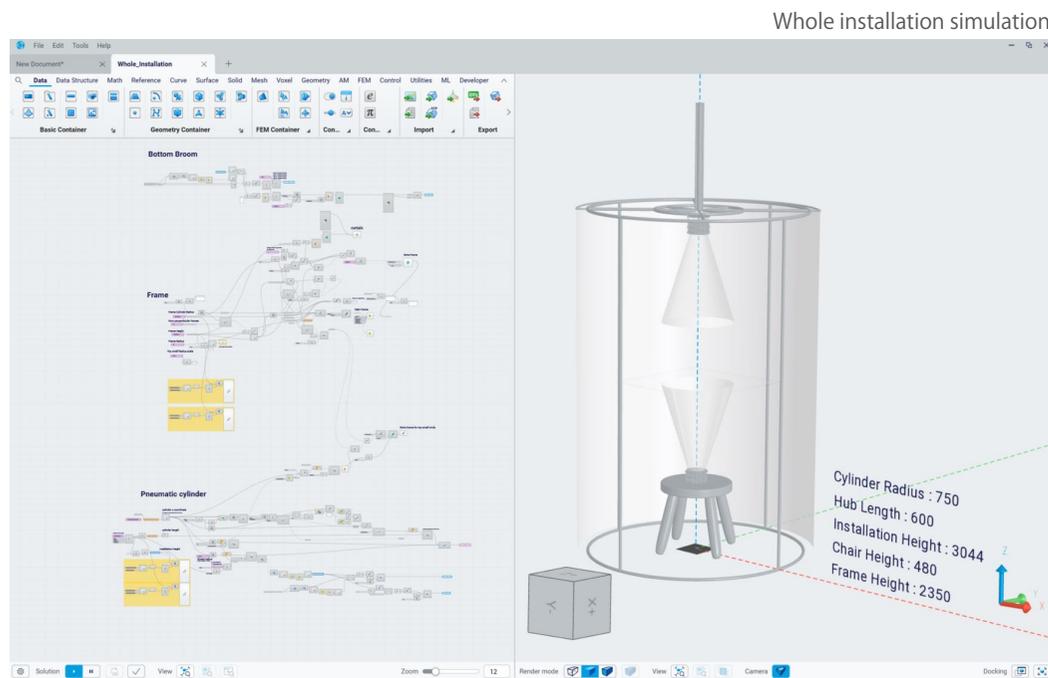


Isometric view



Modeling

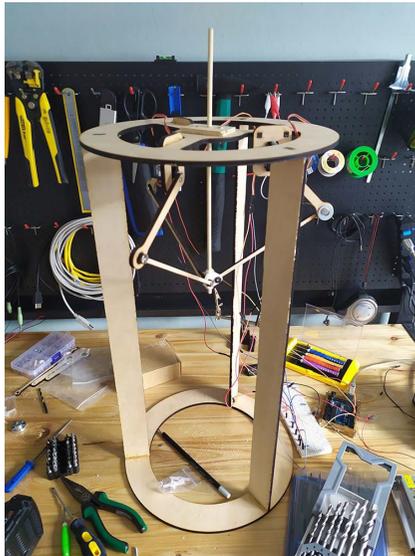
When I actually started modeling with CAD software, I found that using the existing broomstick as it was would be too large and would increase the structural redundancy, so I decided to use a pneumatic cylinder to remove the handle of the broomstick and to make my own plate to support the brooms.



Prototyping

I proceeded with the prototyping of the broom part mainly, including the mechanism of the first delta robot, and gradually decided on the structure of them, the number and length of branches needed, and how to glue them.

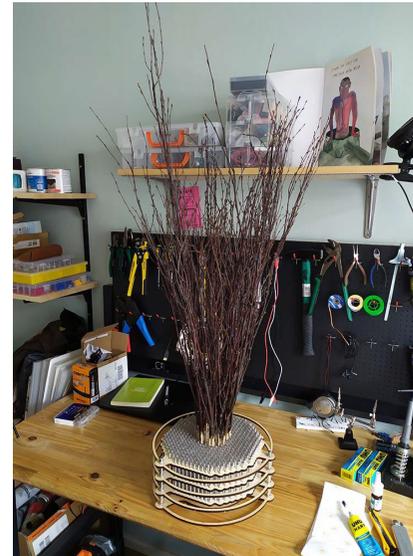
prototype 0 (Delta Robot)



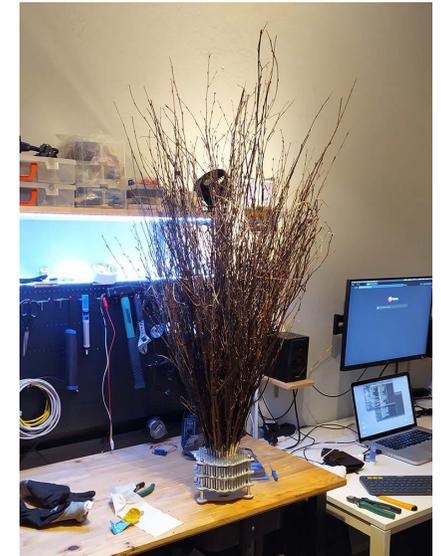
Broom test



1st prototype



2nd prototype



Assembly

I sent the two-dimensional data (dxf) modeled with CAD software to an iron plate processing company to cut aluminum plates with a laser cutter, which were then assembled.

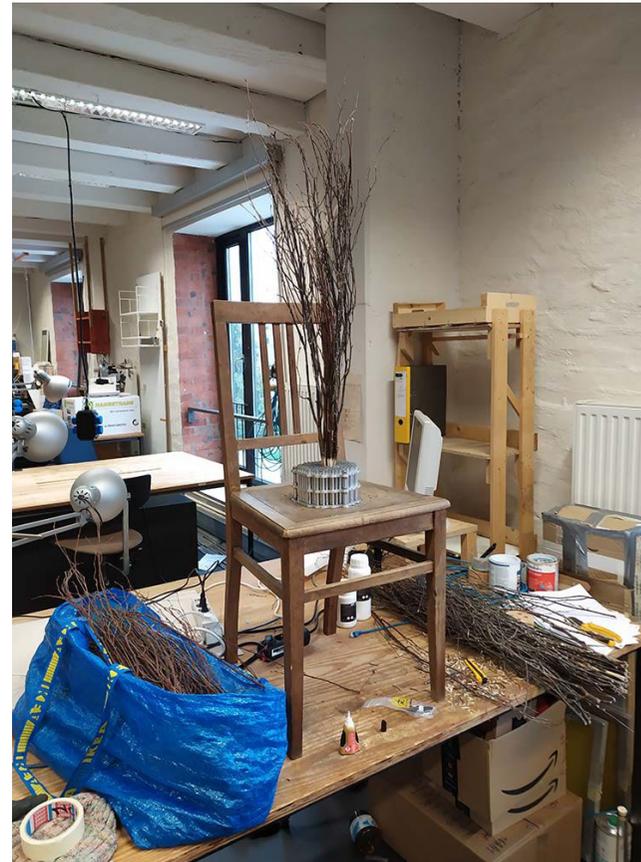
Aluminum sheet cut by laser cutter



The assembled base part for the broom



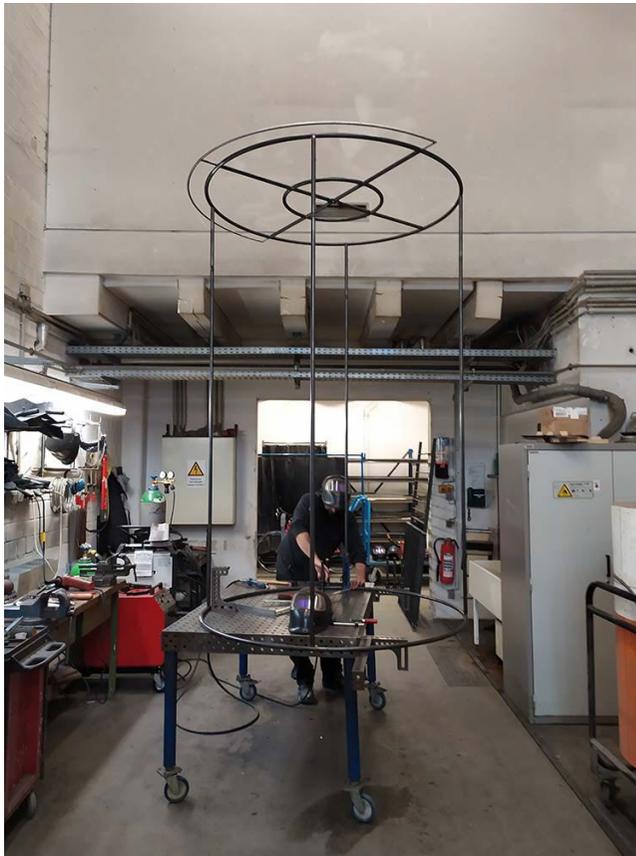
Attaching to a chair and make a broom



Frame Creation and Testing

It was impossible to bend the metal pipe and make the round frame with the equipment in HFK, so I ordered the two round metal frames at the bottom and top from the metal fabrication company. Then I welded them to attach the plate for the pneumatic cylinder at the top-center. The upright metal pipes are connected to the round frames with screws so that they can be disassembled for transport. Then I attached the pneumatic cylinder and put the brooms to test the finish.

Production of the frame in the metal workshop of HFK



Installation test with the brooms



Finished Installation



Initial Position



Brooms pressing









