International Theoretical and Applied Research Conference

PSYCHOLOGY AND ART

The International Theoretical and Applied Research Conference PSYCHOLOGY AND ART is dedicated to discourse and exchange of ideas on current issues reflecting various developments and interactions between visual art and psychology.

The idea stems from the shared boundary between science, particularly psychology, and art. We have a responsibility to synchronize the international interdisciplinary debate around contemporary visual media and current ideas in psychology. This necessitates, on the one hand, assembling and analyzing trends in art, psychological research and the impact of digital technologies on culture and science, and on the other, a discussion between artistic experience and psychological interpretation.

The event includes a broad variety of topics, including psychology of art, theory of art, visual arts, art therapy, art education, art management, digital technologies etc. The aim of this initiative is to attract and present innovative research, methods of approach and models for their application.
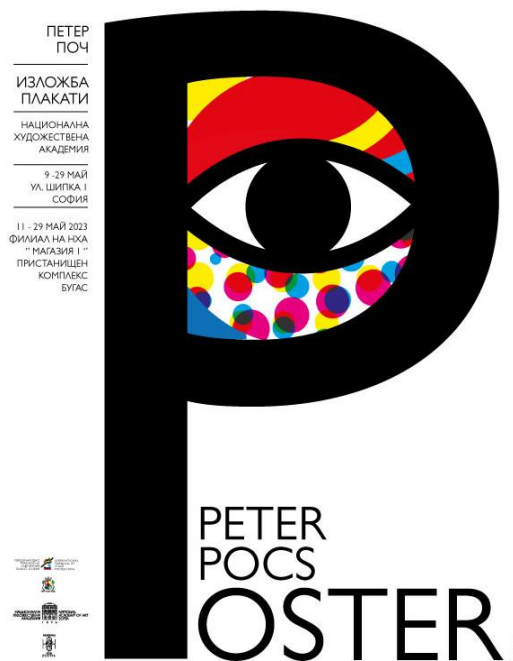
The conference includes three sections:

I. Psychology of art. Head and moderator

II. Art therapy and visual art

III. Applied models – their integration in higher education and in the department's communication strategy

The modules cover the following topics:

- Cross-cultural studies and communications

- Psychological dimensions of art and creativity

- Art therapy

- Contemporary practices in fine art methodology

- Science, art and technology

CROSS-CULTURAL STUDIES AND COMMUNICATIONS

ПЕТЕР
ПОЧ

ИЗЛОЖБА
ПЛАКАТИ

НАЦИОНАЛНА
ХУДОЖЕСТВЕНА
АКАДЕМИЯ

9 -29 МАЙ
УЛ. ШИПКА 1
СОФИЯ

11 - 29 МАЙ 2023
ФИЛИАЛ НА НХА
" МАГАЗИЯ 1 "
ПРИСТАНИЩЕН
КОМПЛЕКС
БУГАС

PETER
POCS
POSTER

Péter Pócs:

on the way between the subconscious fairy-fantasy reflections and

the harsh reality of being

Albena Spasova

The world through the eyes of poster artist Péter Pócs

Witty, grotesque and sometimes painful improvisation is intrinsic to Péter Pócs's character and has a direct impact on his behavior as a visual artist, who builds his own cosmogony populated by unforgettable images, themes and ideas.

Pócs deals with topics that push him to a personal opinion or ones he can identify with. The author knows how to put and depict his ideas and feelings, which is the reason

why the event on which the given poster is focused on acquires an extremely exciting imagery.

Looking at his posters we find a procession of three-dimensional images – we see posters populated with various objects: images and figures that look like clowns and marionettes from a puppet or circus show, but also with grotesque, satirical or Dadaist figures filled with paradoxical humor.

Creating this entire complex world requires a number of skills and creative reincarnations. We can define the author as a designer, sculptor, scenographer, calligrapher, director, photographer, but above all as an agile equilibrist, to whom the space of the poster is completely under his control.

Most of Pócs's posters are filled with fantasy and a faerie atmosphere. The compositions are riddles that attract the viewer and involve them in search and discovery of the meaning. The posters are intriguing and impressive not only with their imagery, but also with the non-standard solutions with which the author presents the text. With his calligraphic skills, he sculpts the letters with different techniques, not often found in modern typography, always adapting them to the style and spirit of the respective poster.

His posters attract attention, and their authorship is often easier to establish than the advertised object itself. The result is an artistic quality that is sure to outlive the actual product or event being advertised.

Péter Pócs's works are loaded with semantic functions. The surprise, unexpected and unusual vision is so strong that it instantly captures attention. The viewer remains captivated, as their imagination continues to develop and decode the sight, staying for a long time within the reach of Pócs. The feeling is fascinating because we can enter a real existing "other world" in which the truth is brutally and openly stated. But along with that, "softened" through the veil of visualized former childhood memories and dreams.

A kind of surprising reality arises in a mystical way in which the measurable is consciously transformed, heavy objects become heavier or lighter, not subject to gravity, and simple, concrete things become mysterious with the help of illusory lights.

In Pócs's art, light and shadow have a form-shaping and meaningful impact, they transform surfaces, deepen slits and cracks, turn the space of the poster into an enchanted scene in an imaginary landscape.

Pócs masterfully maneuvers between the oppositions: fabulous naivety and harsh reality. The seemingly naive faerie world in his posters is easily transformed into a real drama before the viewer's eyes, saturated with trials of emotional and intellectual nature. The naive, almost primitive simplicity is suddenly transformed into the ancient image of collective suffering.

Pócs's ability to observe and analyze the environment and his keen sensitivity to find original forms of creative expression lead him to constantly try new visual codes and possibilities of expression.

His infamous sculptural characters have long since become emblematic. Inhabiting their own parallel world, they mark his work as unique and absolutely original in the history of poster design.

An important feature of Pócs's posters is their marked audacity, with which they provoke. They cannot be casually passed over or go unnoticed – they are not only eye-catching, but also thought-provoking.

The eternal theme of resistance is an invariable part of Péter Pócs's art, as much as his art succeeds in provoking the wrath of authority. According to the Hungarian art critic Katalin Bakos, "*Pócs puts his whole soul into the posters. His works are never indifferent, they scream, roar, mock and cannot be passed by with indifference.*".

Pócs's posters comment on the hottest and current topics, but they do not lose their antiquity because they always have a universal and philanthropic message. The author has mastered the art of making the implications of his posters transcend the moment and outlive the transience inherent in the nature of the poster.

"Péter Pócs *is a visual author touched by suffering, individual and collective humiliation and the history of our dark fate in Central Europe. He is an artist who is happy to make the world confess to him.*"

Lajos Sakolsay, writer, Budapest, 1991.

The theater and life scenes are inseparable from Pócs's work, moreover, the scene becomes an integral part of a number of his posters.

In his works, Pócs creates complex connections in the spatial installations he builds. His inventive and enigmatic solutions have an allure that commands attention.

According to Péter Pócs himself: "*The purpose of the POSTER, unlike the purpose of huge commercial advertisements, which are mainly about power and money, is not to sell products. Its most important purpose – in addition to aesthetics – is to make people think and reason. The poster raises a question for the viewer to consider and add to.*"

With delightfully subtle irony, with eyes, hands and heart, Péter Pócs creates his posters, upholding the view that they are not only a means of communication, but also a territory for creative experimentation and exchange of ideas.

This is how another great poster artist, connoisseur of this art and director of the Mexican Biennale – Javier Bermudez characterizes him: " Péter Pócs's curiosity, the freshness inherent in children, as well as his spontaneous approach to new ways and their exploration, are qualities that allow him to become one of the biggest and most charismatic poster artists in Europe. Clearly inspired by Poland, his calligraphic concept is part of the texture of his works. The way he manipulates his three-dimensional metaphors and the appearance of materials, achieved both by hand and through the chiaroscuro in photographic images, makes his work unique and absolutely original in the history of poster design."

About Péter Pócs and his art

Péter Pócs was born on September 14, 1950 in Pécs, Hungary.

He graduated in 1971 as a designer of gold and silverware. From 1972 he worked as a graphic designer, creating mostly cultural and some commercial posters. After the political changes, from the 1980s to today, he is the author of numerous political posters.

He named Henrik Tomaszewski, Valdemar Šveži and Djord Konecny as his spiritual teachers. His works have been presented in the most authoritative poster forums around the world (international exhibitions, biennials, triennials) and have been awarded prestigious prizes. He is a regular participant in international poster campaigns with invitations: "Homage to Max Ponti", "13 + Lautrec", "Communication 2000",

"Hungarian Millennium", Toulouse Family, "Children are the rhythm of the world", "Letters of Bulgaria - alphabet of Europe", Sarajevo 2014, "Celebrate the Earth" (design x Taipei). In 1991, he created his own studio; in 1997 he received the Hungarian Art Prize "Mihaly Munkács" and in 2008 he founded the Hungarian Poster Solitude Association.

He has organized more than 50 solo exhibitions, is the winner of more than 35 international and Hungarian awards and gives lectures all over the world. He regularly participates in the Triennale in Sofia and is one of the members of its international jury, and with his donation of 135 posters he also becomes the most generous individual donor in his unique fund of poster art samples.

Pócs's posters express his creative, political and social position as an artist engaged with the hottest topics of our time. They create a unique dialogue with the viewer and live an independent life of works of art beyond their specific purpose – a life longer than the products or events for which they were created.

In his posters, Pócs developed a very personal and atypical iconography populated by zoomorphic creatures, animals, plants, birds and books, eyes and metronomes, flags and mousetraps, demons and martyrs, pencils and chariots, crosses, signs and many different objects. Sculpted and hand-colored, they all flow, interchange and become powerful symbols with overall impact and unique individuality.

Péter Pócs is a visual dramatist who populates his posters with characters and dramas, stories and symbols.

Through his art, the author seriously and deeply comments on the social and political situation in Hungary, in Eastern Europe and around the world. For him, the poster is a mirror of reality and a catalyst for change. His works, focused on significant social issues, are honest to the extreme and uncompromising in their judgmental imagery.

Although he uses a wide range of solutions, he is a master whose work can be unmistakably recognized and it is no coincidence that he is placed among the most influential names in the world of modern world poster.

Péter Pócs and Bulgaria:

Péter Pócs's has visited Bulgaria three times – with his solo exhibition organized by the Hungarian Cultural Institute in 2012 and as a member of the international jury for The stage poster triennial awards before 2013. The program of his last visit in May 2023, held at the invitation of The international stage poster triennial included: two solo exhibitions, demonstrations, open studios, meetings with students, pupils and colleagues. The main partner and host of the events was the National Academy of Arts and its branch in Burgas.

The expositions presented two thematically grouped trends in Péter Pócs's art:

• SOCIAL POSTERS, May 9 – 29, 2023, Terrace Hall, New Academic Building of the National Academy of Sciences, Sofia, Shipka St. #1;

• POSTERS FOR CULTURAL EVENTS, May 11 – 31, 2023, NAA – Burgas Branch, lobby, Store 1, Burgas Port Complex

The exhibitions and the presence of their author became the occasion for a series of accompanying initiatives, lectures to students and teachers from the National Art High School "Tsanko Lavrenov" in Plovdiv; participation as a special guest at the scientific-applied conference "Psychology and Art", organized by the Department "Psychology of Art, Art Education and General Academic Disciplines" at the National Academy of Arts.

Featured articles:

Джанфранко Тори: „Плакат без реклама", Linea Grafica, Милано (Италия), 1990/5

Графичен дизайн в Източна Европа, специално издание на IDEA, (Япония), 1990/6

Каталин Бакош: „Знаци на промяната (плакати 1988 - 1990)", Унгарска национална галерия, Будапеща (Унгария), HU ISBN 0231 2387

„Изкуството като активист (революционни плакати от Централна и Източна Европа)", Universe Publishing, Ню Йорк, (САЩ). 1992. ISBN 0 87663 623 7

„Графичният дизайн по света", том I, Kodansha, (Япония). 1993. ISBN 4 06 205144 3

„100-те най-добри плаката от Европа и Съединените щати 1945-1990", Toppan Printing Co., Ltd. Токио (JP)

Лиз Маккуистън: „Графична агитация (социална и политическа графика от шейсетте години насам)", Phaidon Press Ltd., Лондон (Великобритания), ISBN 0 7148 2878 5

„Европа без стени (изкуство, плакати и революция 1989-93)“, редактирано от: Джеймс Аулих и Тим Уилкокс, Manchester City Art Galleries, (Великобритания), ISBN 0 90 1 673 447

Каталин Бакош: „Музи и канони (унгарско съвременно плакатно изкуство)“, Музей на изкуствата и занаятите, Хамбург (Германия). 1995.

Маргарет Тимърс: "Силата на плакатите", Музей „Виктория и Албърт“, Лондон (Великобритания). 1998. ISBN 1 85177 2405

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Антън Бийк, Ален Уейл - Даниеле Девинк: „Новият „Salon dos Cent“, (Международна изложба на плакати), Editions Odyssée, (Франция). 2001. ISBN 2 909478 13 0

Хавиер Бермудес: „Петер Поч“, Lúdica, Мексико Сити (Мексико).2002.

Дженпин Хе: „Всички хора са братя“, Hesing, Шанхай, Берлин (КНР + Германия) ISBN 3 9810544-0-7

„Фин Нигор с приятели“, Датски музей на изкуство и дизайн, Копенхаген (Дания) ISBN 87-990704-0-5

Милтън Глейзър, Мирко Илич: „Дизайнът на несъгласието“, редакция Gustavo Gili, SA, Барселона (Испания), 2006. ISBN-13: 978-84-252-2076-0 и ISBN-10: 84-252-2076-9

„Петер Поч: плакатът съм аз“, Ню График, 16 / 08, Нанджин (КНР)

„От края на 1909 г. до началото на XXI век“, Trama Visual, Мексико (Мексико)

Хумористични плакати от цял свят, Музей на изкуствата, Котбус (Германия) ISBN 978-3-928696-94-4

„Светът на плакатите“, Датски музей на плаката, Орхус (Дания) ISBN 87-90552-21-0

Ларс Дибдал: „Глобалният плакат“, Nyt Nordisk Forlag Arnold Busck, Копенхаген (Дания) ISBN 978-87-17-04058-8

Дьорд Шумеги: „Плакати (1956-2006)“, издателство „Corvina“, Будапеща (Унгария) ISBN 978 963 13 6297 8

Моника Зомбори: „Изложби в огледалото на съвременните документи“, (част 3: осемдесетте), Artmagazin, 2015/10, Будапеща (Унгария) ISBN 1785-30-60

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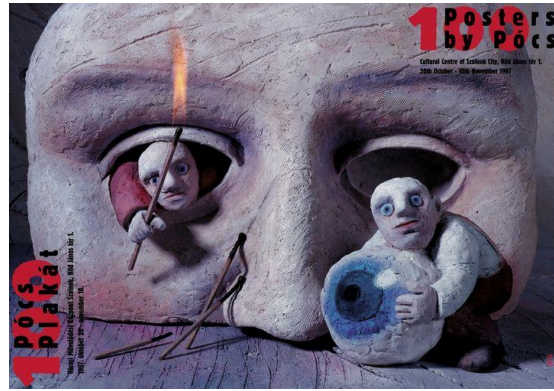Мирко Илич, Стивън Хелър: „Представяме Шекспир“, Princeton Architectual Press, Ню Йорк (САЩ) ISBN 978-1-61689-292-0
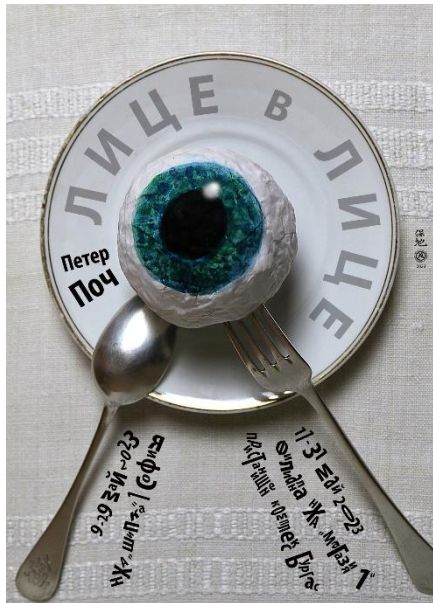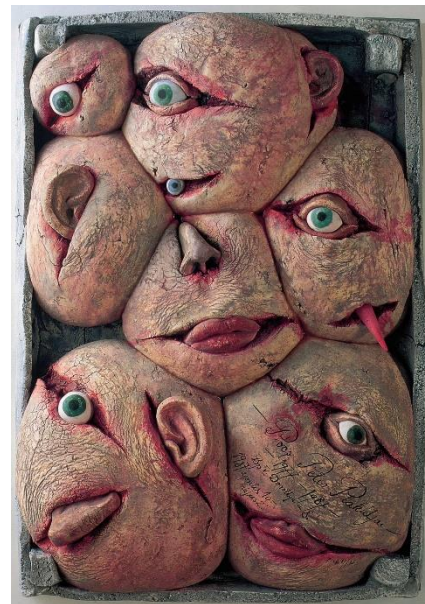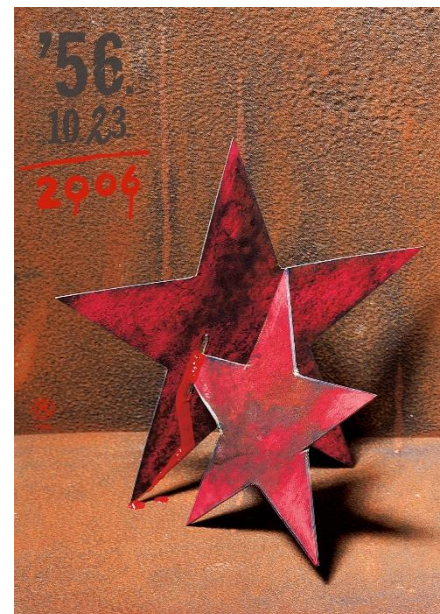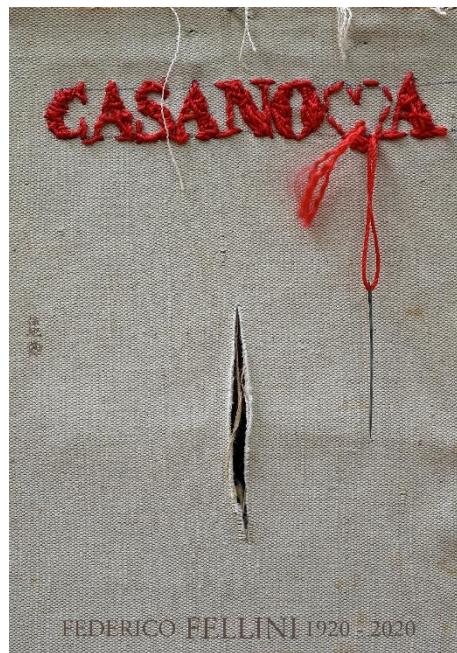
Fig. 2

Fig. 3

Fig. 4

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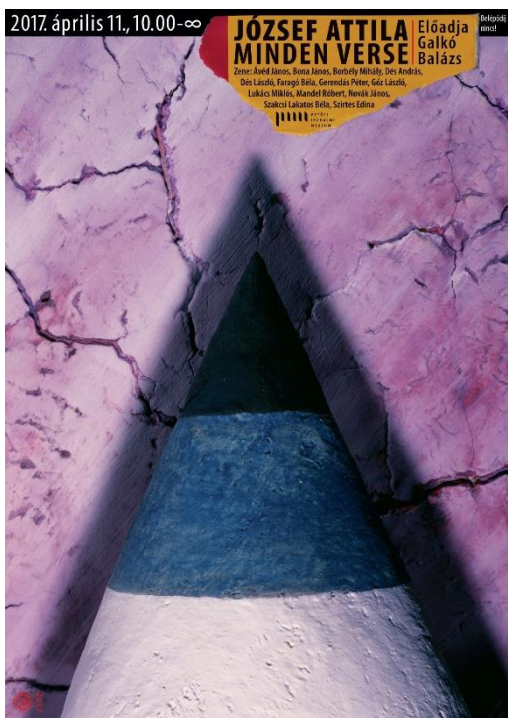Fig. 8

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PSYCHOLOGICAL DIMENSIONS OF ART AND CREATIVITY

Psychological Dimensions in Damien Hirst's work

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In the introduction of the present theoretical work, dedicated to the psychological dimensions in the work of Damien Hirst, it seems necessary to me to unfold the aspects of the psychological reality and the challenges to people in the 90s of the XX century. This is the period in which Hirst made his first serious claims as an artist, and at the same time he was in his own youth, which formed his attitude, tastes and outlook.

Let's start there first – in order to be more comprehensive and to present in depth the subject of Damien Hirst's manipulative approach to the viewer, I first want to outline the factors that predetermine and shape his own subconscious processes. We will find them in the entire context of his youth – the beginning of the 90s, which, to a large extent precisely in England, marked and colored the trends in art and urban culture for the entire Western world.

Hirst (Fig.1) was born in Bristol, which, due to its established club music scene already in the 1980's, was a center for experiments by restless minds. Here I must undoubtedly point out two main keys to the people of this generation – the availability of an increasingly rich range of narcotic substances and the gradual introduction of the INTERNET. In addition, I must point out that the main element to the understanding of the spirit of the time is the fact that life has been transferred from the closed space of the home and family, to the homeless wandering the streets – urban culture is a kind of scene, being in its true sense: unpredictable, fast, multi-genre, risky.

If today the field of expression and the tribune of what is happening are social networks, then in the 90's, everything was taken outside, to the street. There we will also find the great stimulants for Hirst's imagination – the subculture of post punk, prone to anarchist understandings and denial of authority. The 90's were the time of shaky institutions and the great boom of religious sects, which means that classical religion and unquestioning faith in God gave way to the rise into a cult of the "new values".

This is how we can explain that if you are rebellious by nature and have a very developed imagination, you could easily cross even the line of awe towards religion. Now you yourself can dare to create the circumstances that will make you God. Where

do we find here the psychological dimensions in Damien Hirst's subsequently *too bold projects*? He is well aware, on the one hand, of the pulse of time in which man consumes everything offered on the market. At the same time, the street and the city are the place for recognizing interests, but what is missing in this cultural climate? The archetype of nature. In contrast to what is happening now, in our decade, when the modern urban man quite consciously tries to bring nature closer to himself and his way of life, while at the same time being an active defender of it. Currently, identifying as a vegan or conservationist has achieved the status of a sustainable urban trend, but in the 1990s, when Damien Hirst was looking for a shortcut to the human subconscious, nature and animal archetypes seemed to be absent. Hirst wanted to recall precisely this lack with his attack on the unconscious processes in humans. And it is quite direct – Hirst wounds the viewer, making him feel weak and defenseless in the face of fears and proximity to death. It is a manipulative conceptual decision intended to dislodge man from his illusory position as the highest evolutionary being, placing him back in his role as a victim threatened by his dominant predator. Damien Hirst turns the focus on primacy and the primitive struggle for survival, to the supremacy of the species. At the same time, he subjugates nature, seemingly domesticating it, locking it in the cage of the gallery space and literally in an iron-framed aquarium. This, in the context of the time in which it was done, is a more or less eloquent gesture of the artist to get closer to God.

But let's go back to the context of the 90s. At the time, one of the most common family entertainments was the tendency to rent videotapes of films of various genres, however, the ever-increasing horror films stood out. The 90's is the period in which Steven Spielberg created "Jurassic Park" and thus offered the viewer in front of the small screen the convenience of watching undisturbed at home the spectacle of man's clash with nature. To the man with the predator. Of the desperate attempt of homo sapiens to overcome the laws of the jungle. But all of the above does not affect the subconscious fears of a person so much, the beasts of the small screen are clearly perceived through the distance of the television kinescope. The viewer is just a voyeur.

It would be interesting to try to make a psychological profile of Damien Hirst and the processes in his childhood subconscious. He has repeatedly stated publicly what effect another Steven Spielberg film had on his imagination, playing again with the primal sense of fear of the encounter between prey and predator. It is about "Jaws" (Fig. 2) from 1975. Exactly how many times Hirst saw it as a child is not known, but if we are to analyze the power with which everything from childhood is subsequently

projected into a person's life, it was certainly more than once. We would later find the influence in some of the most iconic and highly paid works of this Englishman, who also, sometime in his teenage years, became an avid admirer of illustrated pathology books that showed graphic depictions of disease and injury. Thus, the theme of physical scares from the end, or more of art and in particular fear-inducing sculpture, will often find its way into the works of Hirst, who has more or less perfected his manipulation of audiences with this method.

Here I want to use a direct quote from the book "Psychology of Art" by Prof. Peter Tzanev, the reference I can make with Hirst's psychological approaches is more than analogous: *"...there is a specific category of creativity that can be defined as art "without psychological distance", which is a direct indicator of certain psychological processes and states. This art "without psychological distance" is associated with an imagery that we experience fear and horror at. An imagery that makes us feel startled by the unexpected manifestation of something that has to do with a reality we don't suspect exists, but a reality we feel we are about to face in reality.*

Art "without psychological distance" has a special power that opens up the space into which information that has nothing to do with art, such as aesthetic, cognitive or symbolic activity, penetrates. A space where art becomes a means of encountering the shocking mysteries of life and death."[1].

Flipping through Damien Hirst's biography, we will also discover the story of how he presented dead animals in formaldehyde. An idea borrowed from Marcel Duchamp and that of Hirst aims to use ready-made objects to shock and thus question the very essence of art. The reference is also to the works of Richard Serra, whose inclined planes create a feeling of discomfort and fear in the viewer that they might be trapped if they fall. Fear is an excellent tool for subconscious manipulation, especially when it comes to art, and Damien Hirst knows how to wield these weapons. Thus, he provides the viewer of his works with a sufficient amount of latent horror in the contemplation of his open-mouthed shark in a display case, filled with 5% formaldehyde solution. (Fig. 3) The large amount of water in itself is also frightening. The details of how Damien Hirst realized his famous idea with the shark are curious. He contacted the post offices of Australia, asking them to distribute posters in the cities with a text that read: Tiger shark wanted for exhibition. Damien Hirst, London, UK and contact phone.

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[1] Цанев, П. Психология на изкуството. С., 2021, с. 686

His ad was answered by legendary Australian shark hunter Vic Kiesler, who provided Hearst with a 12-foot (4.5 m) tiger shark.

His approach is similar in The Kingdom, created in 2008, which represents a shark with its mouth open immersed in a formaldehyde solution in a large black-framed display case. (Fig. 4)

But let's move on in tracing Hirst's eccentric experiments with animals and their effect on the edge of horror and fear among the audience.

A Thousand Years, (Fig. 5) created in 1990 is a sculptural installation deliberately aimed at scandalizing the audience. This was easily achieved by its author, who literally placed a severed, bleeding head of a cow in a closed glass case (Fig. 6). Before entering into the obligatory specifics of describing this Hirst project with its extremely realistic characteristics, I will try to present a view from another perspective – the metaphorical one. There is a lot of throbbing, rotting flesh metaphor in this early Hirst work. This is not even so much about the extremely ambitious design of a young Damien Hirst, clearly determined to win the attention of critics and audiences. The key is in his courage to bring this visual fragment of reality into the exhibition space. In this way, the viewer, an observer of the natural cycle in which death and life are constantly changing places, can easily ask himself, is he not a mere beholder? And if we inevitably, at every moment of our lives, have the role of predator, victim or parasite, how free are we to choose this predestination of ours?

But let me return, for a moment, to that key word mentioned above: metaphor. Why tie *A Thousand Years* to this approach? It is well known that with all his own, even pure and simple pop culture provocation, Damien Hirst scares, he aims precisely at those traps of the subconscious, in which lurks the unexpected fear, the horror of the collision with something for which there is no way to prepare. However, in this particular work of his, through the absurdity of the decomposed cow's head in the most prestigious museums around the world, this fear and horror bring a different beauty to the natural cycle – presented visually for an admission ticket. Contemporary art often makes use of a toolkit of aesthetically or deliberately deformed objects with which the artist can easily fabricate a work for connoisseurs. Damien Hirst presents a harsh but real episode of life in which each of us participates, but is not always aware of it. Specifically, *A Thousand Years* is a large transparent tank with a black frame, divided into two parts, with a small opening between them. In the first, countless flies are born and buzz. In the second, they can feast on a deliciously rotting bloody cow's head – but risk being torn apart by the

carrion-eating insect. Generations of flies will pass while world history is trapped in this closed allegory. The electric lamp is in the role of God. Any fly that touches the rheotans dies instantly. The principle of this is completely random, no selection, no rules. Just by flying past the neon, the fly is accidentally killed. The work is a kind of collective image of the cycle of life.

In this work we find references to many authors that Hirst liked at the time he created it: Bruce Nauman for the neon in the lamp, Francis Bacon for the cow's head and Saul Lewitt for his cubes.

In the context of my discussion of the problematics of Damien Hirst's work, it is appropriate to mention here that, in my opinion, he subjects his audience to an experience with the opposite effect of the effect of art therapy. This widely popular method of psychotherapy, with a great purpose and especially useful for patients who are unable to define a traumatic condition, in Hirst recedes, we can even say that it is completely absent. On the other hand, the viewer, who is, in one form or another, a patient of his art, is deliberately traumatized. The field of his supposedly protected human psyche, protecting him through his primal instincts for self-preservation, is being consciously attacked.

Having trapped his audience in the aforementioned subconscious primal fears, Damien Hirst does not hesitate to question both religious beliefs and man's faith in God. A prime example of this can be seen in *The Incomplete Truth*, created in 2006. (Fig. 7) The work has an unequivocal, peculiar joker from its author in a text about the title "*Never let the truth stand in the way of a good story.*" It is essentially a white dove, wings outstretched, in frozen flight, reintroduced into Damien Hirst's well-known aquarium. However, here, quite thematically, its frame, unlike the previous projects in this series, is white. The analogy is direct. On the one hand, there is the idea of the trinity of God, which here personifies His manifestation as a spirit, canonically depicted in the form of a white dove. On the other hand, the white dove is the indicator of peace, a symbol introduced into visual art by Pablo Picasso. This is his well-known drawing of a white dove holding a laurel branch in its beak.

But let us return again to Hirst's pigeon. He appears to be both flying in the sky, but at the same time hopelessly trapped in the liquid trap of the display case. He is now a caged bird turned into a product that tickles the senses of those tempted by modern art forms. According to Hirst, it is precisely this, that which can give us hope, while religion does not. Hirst has indeed successfully monopolized the psyche of the museum public.

He influences it with all the domineering and unappealing, and precisely because of this he claims to leave the freedom to interpret his works.

The next fundamental human institution whose status and authority Hirst attempts to undermine through art is the unity and bond of the family unit. And even more specifically between a mother and an underage child. We will see a direct example of this in *Mother and Child* (Divided), a work created in 1993 (Fig. 8). It represents a cow and a calf split in two, with each separate half of the animal placed in its own display case with a preservative solution. This particular work marks the beginning of Hirst's subsequent long-standing practice of bringing the viewer's gaze literally into the interior of things. (Fig. 9) In his case, even with a sense of humor we can say that it is a visual lesson in anatomy. One more reason to call the British artist a cold-blooded pathologist of the life cycle and chronicler of the decaying remains of his now-gone life. In this work, the cow and her young calf are located so that their two halves are at a certain distance from each other so that the audience can pass through them. In this way, Hirst provides the opportunity for everyone in the room to become a pathoanatomist, being in the carcass of the animal. (Fig. 10) Although he claims that he is not obsessed with the subject of death, for his researchers this is not quite the case. However, every visitor to a museum in which Hirst's work is exhibited is forced to face head-on the idea of the end of existence. To face the things you cannot avoid and to confront them. Again, as in his aforementioned projects, Damien Hirst uses real animals, and his method is to preserve them in formaldehyde. It lacks the sentimental attachment or empathic connection with the recently living being. For him, the cow, the shark, the pigeon and others are a tool, a kind of sculptural table, through which he impartially models his idea. In support of what has been said is what Hearst himself shared, that with the first cow he tried to cut, he started the cut from the rump to the head. But then at the end, near the head, the cut diverged and became asymmetrically distorted. This required the author to use a second cow for his dissection. Two years after the first public showing of *Mother and Child (Divided)*, in 1995, when accepting the Turner Prize, Hirst said: "*It's amazing what you can achieve with an art degree, a warped imagination and a chainsaw*."

Another interesting direction in Damien Hirst's work is the one in which he, atypically for him, delicately focuses on the subject of gluttony, its intoxication and its consequences. It is about *In and Out of Love* (White Paintings and Live Butterflies), created in 1991. (Fig. 11) In this work, the viewer is invited to enter a room filled with

many living butterflies feeding on rotting fruit. Butterflies become intoxicated by the juice they ferment.

Leaving with this project the predatory world of mammals, in which the viewer's horror, fear and disgust are much more direct, as well as sympathy for the dead animal, Damien Hirst shows a new aspect of his work. What is our first association when we observe *In and Out of Love* (White Paintings and Live Butterflies)? Here there is much more aestheticized and decorative character of atmosphere, similar to a moving still life, than we are used to seeing heretofore from the author. Bright colors are a kind of counterpoint to the above-mentioned monochronic compositions with animals. In the work under consideration now, it's as if Hirst is inviting us to a pop culture feast where there seem to be no losers. Yes, butterflies die staged, but how do they do it? What Damien Hirst is leading us to think: that they are in the rapture of the drug bacchanalia, in which the appetite kills you and the instincts are asleep, under the influence of temptation. (Fig. 12) I will share an even bolder opinion that one of the main sins - gluttony - is at stake here.

In the process of preparing this work, its author studied the behavioral habits of these insects, literally living with them, breeding them, flying freely in his home. In his own words, it happened that after a drunken evening he would throw up on the floor of his bedroom, and in the morning find the butterflies greedily attacking the "food" he had provided for them. In addition to these experiments, Hirst made a series of colorful, monochrome paintings, sticking butterflies on the still-wet paint. Sometimes he would smudge the paint on the tip of their wings to make it look like they were fighting back in an attempt to save themselves.

Up to this point we have followed how Damien Hirst plays with man's primal fears to place him in the vulnerable position of a hunted victim. I gave an example of how he tries to question our beliefs in an attempt to usurp the function of God. It dissects the intimacy of the mother-child relationship, and with a subtle sense of irony criticizes humanity for its gluttony. And this is what therapy Hearst prescribes as a cure for all this.

With his *Pharmacy project* from 1992, Damien Hirst designed a kind of scenographic environment in a gallery space. (Fig. 13) On the other hand, the gallery itself seems to have already acquired the commercial status of a pharmacy. Damien Hirst puts a serious emphasis on the subject of the unquestioning obedience of modern man, not so much to medicine as a science, but to the placebo effect of medicine or the attempt

to buy with a blister the only panacea for treatment and with it - the illusion of a happy life. Here, the author's question to the audience is more than unambiguous - why for the same patients (clients) of the pharmacy, art cannot be a carrier of healing properties. (Fig. 14) *Through Pharmacy*, Hirst unfolds his idea of a kind of temple of human blind faith in the power of medicinal drugs. The contents of the packages placed behind the display cases promise to block our fears if we believe enough in the power of medicine. It is these fears with which Demien Hirst so skilfully manages to arouse in us, daring sometimes to even assume the role of God.
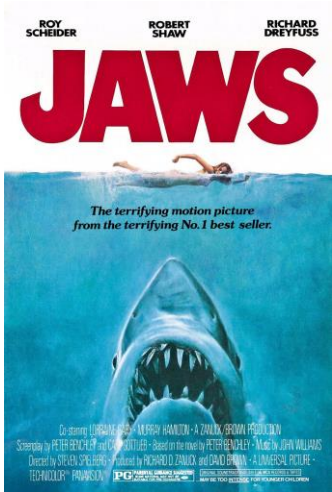

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 8

Fig. 7

Fig. 9

Fig. 10

Fig. 11

Fig. 12

Fig. 13

Fig. 14

1.   Деймиън Хърст,

https://www.nytimes.com/2022/01/21/arts/design/damien-hirst-nft.html

2.   Плакат на филма „Челюсти", Стивън Спилбърг

https://www.eyefilm.nl/en/whats-on/jaws/772409

3.   Деймиън Хърст, "The Physical Impossibility of Death in the Mind of Someone Living"

https://uk.sports.yahoo.com/news/damien-hirst-formaldehyde-sculptures-display-143410147.html

4.   Деймиън Хърст, "The Kingdom"

https://www.artimage.org.uk/3577/damien-hirst/the-kingdom--2008--side-view-

5.   Деймиън Хърст, "A Thousand Years"

https://hyperallergic.com/746876/museum-removes-damien-hirsts-fly-zapping-installation-after-animal-rights-group-complaint/

6.   Деймиън Хърст, "A Thousand Years"

https://www.artspace.com/magazine/art_101/art-in-the-90s/1990-the-reasons-why-damien-hirsts-a-thousand-years-stopped-francis-bacon-in-his-tracks-55452

7.   Деймиън Хърст, "The Incomplete Truth"

https://twitter.com/TeamKanyeDaily/status/1427777164494188557

8.   Деймиън Хърст, "Mother and Child (Divided)"

https://parkstone.international/2019/06/12/shelleys-scandal-of-the-month-spotlight-on-damien-hirst/

9.   Деймиън Хърст, "Mother and Child (Divided)"

https://www.reddit.com/r/ThingsCutInHalfPorn/comments/4de1d4/a_cow_taken_from_mother_and_child_divided_damien/

10.   Деймиън Хърст, "Mother and Child (Divided)"

https://arthive.com/artists/63584~Damien_Hirst/works/623346~Mother_and_Child_Divided

11.   Деймиън Хърст, "In and Out of Love (White Paintings and Live Butterflies)"

https://www.artimage.org.uk/3844/damien-hirst/in---out-of-love--white-paintings---live-butterflies---1991---installed-at-tate-modern--2012

12.   Деймиън Хърст, "In and Out of Love (White Paintings and Live Butterflies)"

https://www.channel4.com/news/tate-reveals-hirst-art-kills-9-000-butterflies

13.   Деймиън Хърст, "Pharmacy"

https://arthive.com/artists/63584~Damien_Hirst/works/623315~Pharmacy

14.   Деймиън Хърст, "Pharmacy"

https://www.sothebys.com/en/buy/auction/2022/modern-contemporary-evening-auction/were-afraid-of-nothing

Psychological Dimensions in Rachel Whiteread`s Work

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In this article, my attempt will be a psychological portrait on the creative figure of the English contemporary sculptor Rachel Whiteread. On the one hand, this is a challenging task because such theoretical research on her artistic projects seems to be absent from the main focus of art critics. On the other hand, I believe that the deep code in her works, in fact, belongs precisely to the cultural and psychoanalytical sciences. I will start with the topic of collective memory, as a natural process of collective living. It is about the idea of a home as a space bearing historical evidence of the identity of its inhabitant, of the imprints of its daily presence as a document of the time to which it belongs. When these apparently private territories of being are presented publicly, as Whiteread boldly decides, they are already beginning to be recognized in their universal character. This could be the home of any viewer watching them. It is as if everyone is invited to settle down, take up residence, and receive shelter. Further on, it will be said that the author herself often chooses precisely this way of life – the collective, nomadic empathy on the way to acquiring an identity.

With her projects of concrete and plaster casts of the negative impression of diverse spaces and forms – rooms, staircases, libraries, furniture, as well as abandoned shacks and even entire houses, Whiteread opens the door not just to the home or the testimonies of any particular inhabitant, she seems to want to return the subconscious memory in all of us of the spaces we have occupied back in the past. In the observed, each viewer can find the traces of his own existence. In a metaphorical sense, these are concrete, monolithic works, not simply in its material, pragmatic context, but also as a storage of emotional memory. This way, Whiteread makes a kind of memorials or monuments of memory. We can categorize them as a collective experience because they embody a direct reference to the lifestyle of the urban man of the late XX and early XXI centuries.

"Moses Israel Finley elegantly attempts to circumvent these theoretical difficulties by suggesting that "collective memory is, after all, nothing more than the presentation to a large number of individuals and the repeated confirmation of memories - of one - only or some people". However, its definition is not entirely satisfactory, since once

transmitted, the memories in question can be subjected to their own interpretation by each individual who received them, which does not give us reason to assume the existence of a truly shared memory."[2]

In the same book, The Anthropology of Memory, Joël Kando also writes: "It is impossible to have an identity without memory (the sum of memories and forgetfulness), since only this ability of ours enables us to maintain consciousness of ourselves over time."[3]

In the same way, Rachel Whiteread, presents monolithic sculptural, memoiristic fragments, not just of an ordinary habitat, but places where people mirrored and formed. It is precisely with these concrete castings of domestic spaces, architecture or objects that she gains worldwide popularity. She uses concrete to immortalize lives, the presence of man and finally – death. After all, most projects in Whiteread's work come down to her interest in these most prosaic objects and spaces of our everyday life – the empty room, the table and chair in it, the space under the stairs, the mattress, the bathtub, the light switch, the lock and the handle on the door. In other words, her art, in one form or another, is an art of understated space – the author simply knows how much and how little to say, thus leaving ample room for the viewer's interpretation.

Before proceeding to the study of the psychological aspects in some of her specific works, it is appropriate to present some of her personal biography. This life path of hers is inevitably also the basis of her conceptual searches.

The winner of the prestigious Turner Prize in the field of art was born in 1963 in England in a family of an artist and a geography teacher.

During her childhood in London, Whiteread's parents' interests in art and architecture greatly influenced their daughter's understanding of form and material. Her father had an interest in urban architecture and the urban environment, an incentive for Rachel to learn from his example, finding in her surroundings subconscious impulses for her subsequent creativity. Her mother's artistic practice, on the other hand, marks the beauty of the intersection between home and studio, life and art. Whiteread fondly remembers helping her father pour a concrete floor in the basement to convert it into a studio for her mother. Subsequently, the sculptor will choose concrete casting as her main material for work.

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[2] Кандо, Ж. Антропология на паметта., С., 2001, с. 65.
[3] Кандо, Ж. Антропология на паметта., С., 2001, с.119.

Despite the above, whether her decision to engage in art was conscious and irrevocable cannot be said, but it can certainly be assumed, because her life follows a very clear trajectory of development. And it is not so often that recognition for the artist comes only at the age of 25 with a first solo exhibition in London, which attracted the curiosity of colleagues, critics and connoisseurs to her work.

At Brighton College, Whiteread began to study painting, then turned entirely to sculpture, eventually becoming one of the most prominent authors in this direction of the second half of the 20th century.

As early as her college years, Rachel Whiteread experimented in the direction of conceptual sculpture, pressing spoons into foundry clay and pouring molten metal into the impression left. (Fig. 1) The result is a shape similar to a spoon, but one that has already lost its primary function, as its rounded form used for scooping up food is filled with the metal frozen in the negative of its print. Similarly and Whiteread's subsequent projects are entirely devoted to the study of the object, space and life, which have lost their functionality and need to be used. In the course of these first timid experiments, Whiteread realized that by very simple actions she could change the meaning of the objects she is working with.

In the early years of her professional development, Whiteread chose for materials paper or papier mache to mold the architectural elements and shapes she used. The focus of her attention were the old mattresses discarded next to the garbage cans (Fig. 2), which she collected. She assosiated these objects with the homeless people – all those lost marginals, the souls outside of public or social interest, somewhere out there, hidden in the unknown streets of the fringes of London. Whiteread also sympathizes with them because her own existence at this moment is not satisfactory. She has little means, and the lodgings she lives in are in the poor suburbs of the English capital. She buys lots of old items, furniture and mattresses from second-hand ads or from organizations like the Salvation Army. With the collected, she makes a series of casts of plaster mattresses. However, the results did not quite satisfy her demands – they were brittle, leading Whiteread to choose resin and silicone as alternative sculptural materials. (Fig. 3) They, as well as plaster, are perceived generally as transitory and working materials used in the process of casting a given sculpture in bronze or other permanent material, while her reading is to use precisely these temporary materials as a basis for her works.

The theme of class division turns out to be key to understanding Rachel Whiteread better. As I mentioned above, she developed her projects on the idea of collective

memory, but at the same time she sought to provoke a public debate in relation to the social stratification in society at that time. It brings out intimate information about the lives of the people inside these spaces. The material that she presents to the audience is completely raw, lacking the desire for excessive aestheticization. It is precisely in the preserved authenticity that everyone, regardless of their social position and standard of living, can discover, as in a mirror, a piece of themselves and their past. It is precisely this objectivity of the seen that turns out to be of collective importance.

Another perspective on these Whiteread projects, from the perspective of both sociological and cultural reading, is a kind of critical build on the theme of overconsumption and commercialization, reflected in art most distinctly through the American manifestations of Pop Art. In contrast to the aforementioned current, Rachel Whiteread sees in objects, besides household goods and an indicator of material well-being, for the first time – also a testimony of emotional value. A certificate that legitimizes the intimate, inner world of their owner.

Whiteread's first large-scale project *"Ghost"* (Fig. 4) from 1990 marked the beginning of the ambitious, architecturally voluminous works for which she gained worldwide fame. The cost for it was around £3,000-£4,000, a challenging sum for the still financially insecure Whiteread at the time. This project of hers is essentially a negative plaster cast of a room in a Victorian house in North London. Whiteread does the casting mostly herself, with the help of her husband, Marcus. She casts the space in pieces of plaster molds, resembling panels with approximate dimensions of one cubic meter. (Fig. 5) Subsequently, she disassembles the molds and takes them to her studio, where she makes a metal structure and collects all the pieces of the mold again, together obtaining a kind of negative impression of the air space in the room. The focus is on the topic of home, shelter and how these spaces bear the imprint and traces of the people who inhabited them.

This model of work was also deployed by Whiteread in the 1993 *"House"* project. (Fig. 6) After the success of *"Ghost"*, a group called *"Art Angel"*, which was financed by Michael Morris and Dames Linwood, offered Rachel Whiteread financial assistance to realize a project on a larger scale. In the present work, she makes casts of the entire interior space – the walls, windows and doors of an abandoned house, determined by the authorities to be dangerous and declared for demolition. The work process lasts six months. The sculpture is temporary and is removed after 80 days, and after its destruction, the terrain is annexed to the territory of a public park. This is the first such

large-scale work of hers to be installed in a public setting. The project provoked mixed reactions among the public and the city administration in 1993, and as a result "*House*" was defined as a scandalous work, which caused a number of heated debates about the problems of real estate, class divisions and urban sprawl, which were discussed in detail above. Whiteread fills the spaces and all rooms of the building with a thick layer of concrete, after which the actual walls of the house are removed, revealing the imprint of the interior spaces of the now defunct building. She casts in concrete the rest of the internal volume of the space, creating a kind of multi-facade, three-dimensional, minimalistic monument to the memory of the no longer existing building. For the implementation of this project, Whiteread hired a professional company that by using pumps, sprayed the pre-reinforced walls, floor and ceiling with concrete. (Fig. 7) In this way, it creates a kind of hollow negative shell (imprint). Whiteread borrowed the technology for making this project from the analogous process of making tunnels, where the tunnel is dug into the ground by machines, the walls are reinforced with iron, rebar mesh and sealed with several layers of concrete sprayed under pressure using the same technology.

Like any full-blooded artist, for Rachel Whiteread there is no dividing line between artistic impulses, inspirations for creative thought and her everyday life. Here it is appropriate to unfold in detail an emblematic fact of her biography – how her own home became a territory for artistic research. Rachel Whiteread lives and works in an old building on the eastern outskirts of London. Over the years, the building has had different owners and functions. It was used as a synagogue until the 1970s, and before that it was a Baptist church. The building was also used as a textile factory. When Rachel and her family decided they are going to live in it, the building was in a very bad shape. They moved in to live there illegally, without paying rent or asking permission from its owners. In order to better understand the space and build a real emotional connection with it, Whiteread decided to cast many parts and spaces of the building. First she did that with the floors, three of the stairwells, as well as two of the apartments in the building (Fig 8).

Another of Whiteread's projects is entitled *"Room 101"*. Before the old building that housed the BBC's journalism studios was demolished, Whiteread cast the empty space from the office of the writer George Orwell – the place where he worked. He did not like his job and says himself that he felt like a spy. Perhaps it is for this Whiteread project that the expression *"If the walls could talk..."* is appropriate.

Further in the exploration of Whiteread's creative path is her project *"Boxes"*. Six months after her mother's death, Rachel and her sister cleared out her home of old belongings. In the basement she found a white cardboard box with the inscription *"Christmas decoration"*. Rachel decided to keep the box, and took it to her studio not knowing exactly what she wants to do with it. She realized that she is drawn to the found box and that she feels nostalgic about it. She begins a series of casts of various types of boxes and cartons, which she casts in plaster. (Fig. 9) (Fig. 10) She describes them as sensitive in materiality and texture. Whiteread also often uses colored pigments to color the plaster he works. The use of color refers to her childhood memories of how she and her sister used to paint together. Against the background of the projects mentioned so far, *"Boxes"* is literally and figuratively locked within a specific intimate memory of Whiteread's biography. But, it still builds on her meaningful messages to archive immaterial experiences through direct visualization. In addition, I would also propose the following thesis – that only when these material artifacts are realized, their author actually realizes the fact that the memory of the event is true. This, in my opinion, is a curious read and an interesting connection with some psychological and philosophical understandings that only when there is physical evidence of something long past in our lives, then we can be sure that we actually experienced it. On the other hand, there is also the widely popular psychotherapy method of self-reflection based on the past. In counterpoint to this, however, it should be noted that in these sculptures of hers, Whiteread takes away the functionality of the original object, namely the ability for one to literally open the box of one's memories. Intentionally here the boxes remain a kind of permanently closed capsules of memory.

"Monument" is the next project with which Whiteread expands her portfolio as a conceptual artist. This work she is doing for the iconic fourth empty plinth in Trafalgar Square in London. Every year, some of the most prominent names in contemporary art appear in the competition, which gives the opportunity to build a new work of art on this pedestal. Rachel Whiteread casts the pedestal form in clear resin and places the cast upside down on top of itself. (Fig. 11) For its time, this was the largest volume cast solidly from epoxy resin. Particularly characteristic of this work is the specific, compositional approach that the author applies not only here, but also in each of her works. When Whiteread makes a cast of a given space, or in this case a plinth for a sculpture, she inevitably also takes a cue from the already established real proportions of the source. Thus, by presumption, the casts created by her become bearers of good

proportions. When she duplicates the particular fourth plinth, she brings into the position of a work of art something that has hitherto been intended as an aid to a possible work of art, as is the role of any plinth for sculpture. Thanks to the plinth being well proportioned, it and the secondary work have similar aesthetic qualities.

A conceptual reading of the work can be made through the sarcophagus association. The empty fourth plinth from Trafalgar Square, turned upside down by Whiteread, is a kind of sarcophagus of time, sealing the era and the way we live. Here, unlike the previous projects discussed above, we are talking about the philosophical understanding of time, not so much through its subjective measure and emotional memory, but time as a specific historical segment relevant to a wide group of people. Time as a limit between certain events of important social importance.

Thus, the comparison with another very emblematic work of Rachel Whiteread – *"Memorial dedicated to the Holocaust'* (Fig. 12), located in the center of the Jewish Square in Vienna (Austria), is quite natural here. In itself, this large-scale project of Whiteread could be independently related to the theme of psychological dimensions in her work. The philosophical treatment of the problem of the Holocaust has multiple readings. All of them, however, contain the following key words – collective memory, ubiquitous trauma and public guilt. And after them comes the question of how to move forward and what do you bequeath to future generations.

Whiteread participated in a public competition announced by the Austrian government and the city of Vienna for the realization of a memorial dedicated to the Holocaust and won it. The realization of this project took 5 years. It was a difficult process for her because at that time in Austrian society the topic of the atrocities of the Holocaust was still very sensitive and even in schools this period of history was not studied.

In the center of the Jewish Square (Judenplatz) in Vienna, Whiteread located a building in the shape of a large horizontal parallelepiped, cast solidly in visible concrete. The shape of the monument is reminiscent of a temple, but also of a solid military bunker. The walls of this sort of bunker or mausoleum are made of the casts of book covers written by Jewish authors, arranged in rows resembling libraries. This is not the first time Whiteread has used bookshelves and bookshelves stacked on top of them as a base for a cast from which she takes a print. On the front facade of the memorial, Whiteread inscribes in relief the silhouette of an imposing double-winged gate, frozen locked in the timelessness of cold concrete. The two-winged gate of the Memorial can

be interpreted as a boundary between the present and the eternal past, the past without end.

There are historical eras and events of immense significance that need a concrete cast to be immortalized and immortalized as an indicator of a crumbling world. It is these same fragments of individual lives that Whiteread so skilfully captures in her imprints of the void in the space of the lived.

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5
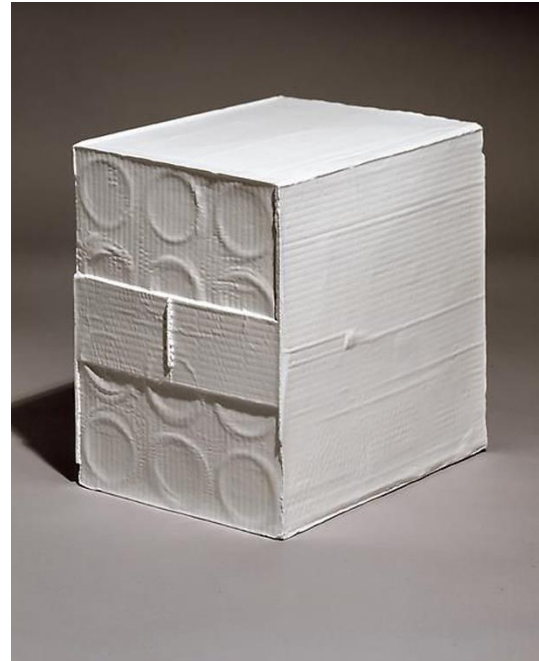

Fig. 6

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Fig. 7

Fig. 8

Fig. 9

Fig. 10

Fig. 11

Fig. 12

1.   Рейчъл Уайтрийд, Cutlery

http://www.arteedicoes.com.br/rachel-whiteread-cutlery

2.   Рейчъл Уайтрийд, Untitled (Air Bed), 1992, Plastic and polystyrene(21.9 x 120 x 194 cm), Collection of Robert and Marguerite Hoffman

https://thewarehousedallas.org/artists/rachel-whiteread/

3.   Рейчъл Уайтрийд, *Untitled (Amber Mattress)*, 1992; rubber and high-density foam; 44 x 36 1/2 x 43 inches

https://www.slam.org/audio/rachel-whiteread/

4.   Рейчъл Уайтрийд, „Призрак", 1990 г.

https://siobhankeam.art/rachel-whiteread

5.   Рейчъл Уайтрийд, Работен процес от проекта „Призрак", 1990 г.

https://www.nga.gov/features/slideshows/rachel-whiteread-making-ghost.html

6.   Рейчъл Уайтрийд, Къща, 1993 г.

https://www.youtube.com/watch?v=ZVueGlKQTE8

7.   Рейчъл Уайтрийд, Работен процес от проекта „Къща", 1993 г.

https://publicdelivery.org/rachel-whiteread-house/

8.   Рейчъл Уайтрийд, Неозаглавен (Стълбище), 2001 г.

https://www.consuelosimpson.com/blog/2017/11/1/rachel-whiteread-at-tate-britain

9.   Рейчъл Уайтрийд, „Съдържания", 2005 г., гипс

https://www.nga.gov/features/slideshows/rachel-whiteread.html#slide_10

10.   Рейчъл Уайтрийд, „Кутия", 2006 г.

https://www.pinterest.com/pin/324048135662508803/

11.   Рейчъл Уайтрийд, „Неозаглавен монумент/ Постамент", 2001 г.

https://monde-diplomatique.de/artikel/!5473840

12.   Рейчъл Уайтрийд, Мемориал, посветен на Холокоста, Виена, Австрия, 2000г.

https://www.belvedere.at/en/rachel-whiteread-0

Point of view:
Millennial art through the zoom lens of empathy

Ivelina Georgieva,

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Prioritized like never before in history, it is an incredibly difficult task to recognize a "true" authentic voice in the millennial art world. Appropriation, an inevitable and often essential artistic comment, is not the problem. Of the 8 billion people on Earth, no one exists with quite the same life experience, with quite the same story to tell. The reason is that it is almost impossible for originality to manifest itself in the rut of stereotypes and judgmental attitudes of a deeply conditioned way of thinking. Manipulated social constructs are obstacles to the development of true authenticity and self-expression. Fortunately, what science might have called in the last century "very understandable human nature", in the new millennium can be analyzed as imposed by the environment. Discrimination based on skin color, nationality, gender and age is not something a baby is born with, but something the community teaches us. Developmental psychology and psychology of the trauma together shaped a practical approach to dealing with the world, integrating both the internalized and the learned. Another feature of the global virtual "new normal" is the rich availability of experiences that one can take advantage of. Today's creators are not condemned to be just one thing, they can present a palette of interests and an admirable amount of knowledge and skills, given the aforementioned tools gifted by the 21st century.

The timeline of emerging trends and essential changes in the world of contemporary art is striated with the increasingly condensed frequency of points of transcendence of each previous period. If there are more than ten centuries from Antiquity to the Middle Ages, from the Middle Ages to the Renaissance and from the Renaissance to the Enlightenment – an average of four centuries, then from the Enlightenment to Modernism and from Modernism to Postmodernism there is roughly only about a century apart. This trend of increasing paradigm shifts in the art world is only getting stronger in the millennial age of globalization and virtual revolution in the 21st century. Postmodernism continued to bear its hallmarks of criticism and parody until around 2010, while post-2010 to the time of writing, 2023, saw a swing of the pendulum with a focus on moral edification of new generations of artists and creators.

The boundaries of these periods, although vague and indicative, in social terms mark a clear focus on the questions of sciences such as genetics, ecology, bioethics, interpersonal psychology and psychotherapy.

Riding the still-steady catamaran of post-colonial denunciation into the age of modernism, visual art experiences a tumultuous movement between sarcasm and the new sincerity of the emerging "metamodern"[4] millennial art. The world of the artist is moving towards crossing the border of global appropriation in search of a new standard of authenticity. Contemporary thinkers and art critics strive to define the time frame of postmodern art and nail down its terminology. I offer the following table of characteristics of the art of the new millennium, compiled on the basis of my research and development on the subject:

FIG. 1

Authenticity depends heavily on the unbiased ability to discern both the differences and the universals of life. I would liken this skill to looking through the zoom lens of a camera: if the author is able to zoom in on a micro-analysis of a situation and alternate that with zooming out to a bird's eye view, he can get a more holistic and realistic scope of a problem . Then the author is empowered with the ability to "translate" the object of his creation into its more objective truth. In this text I argue that the artist could develop this volitional skill to give birth to his authentic phrase. Authenticity is the inner truth of the artist, so it feels primordially virtuous and just. In its experience, the mind calms down, the search for uniqueness is satisfied, the stress reaction to the emotional turmoil of the creator is eliminated, and thus it becomes possible for a person to observe calmly, if necessary – from a distance. The distance allows the necessary space to see well and see more. Seeing more allows for a different perspective. Taking a different perspective allows solving problems effectively, objectively, healthily and faster through critical thinking. Critical thinking involves accepting the existence of different perspectives, and accepting different perspectives means welcoming other people's experiences as valid. Validation gives diversity a chance and eliminates the prospect of a single story. All these millennial values of the democratic globalized

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[4] Timotei Vermeulen, cultural theorist, professor of culture and society in Oslo, calls metamodernism the phase of art history after the 1990s: "Metamodernism oscillates between modern enthusiasm and postmodern irony, between hope and melancholy, between naivety and knowledge, empathy and apathy, unity and multiplicity, totality and fragmentation, purity and ambiguity."; Le Cunff, Anne-Laure. An introduction to metamodernism: the cultural philosophy of the digital age, https://nesslabs.com/metamodernism (5/28/2023)

world: authenticity, diversity, critical thinking and validation, are elements of empathy. Therefore, millennial art can also be seen as motivated by empathy, in addition to being motivated by the search for authenticity.

FIG. 2

The true voice of a creator is a supreme achievement of his self-expression, which allows him to float on the waves of creativity, free and untouched by all the conditioning of the past. In art thus generated, one may encounter a unique cluster of different but united elements and colors, parts of different individual stories, all combined to carry an original message to someone else. How then can there be a single story in this universe if we seek authenticity? Along these lines, part of my cluster of inspiration for writing this piece was the TED Talk: "The Danger of a Single Story"[5] by novelist Chimamanda Ngozi Adichie.

FIG. 3

Chimamanda tells the story of how she found her authentic cultural voice. She frames the "single story" as dangerous because it is half-truthful, incomplete, and allows for contempt for the disparate. It can be said that having the only story is analogous to the logical fallacy of the "false dilemma"[6], where the options are only two and the purpose of this argument is to put the person in a "stalemate"[7], with the inability to think "outside the box"[8]. Either you agree with the "correct" version of history (as they say, it's written by the winners), or you're against those who wrote it. Often, in order for such a false dilemma to exist, the generalization of stereotypes (as in: "natives are good, emigrants are bad") and the logical fallacy of the so-called "straw man"[9] who distorts one-sidedly the characteristics of an argument (for example: "immigrants are uncivilized and only want to steal and attack our women"). Like any other "false logic", the way one can understand the validity of a story is through the practice of critical thinking.

FIG. 4

At the risk of sounding contradictory, in this work I present the phenomenon of empathy as an embodiment of this critical thinking augmented with emotional

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[5] Adichie. Chimamanda Ngozi, Oct 7, 2009, The danger of a single story | TED, https://www.youtube.com/watch?v=D9Ihs241zeg&t=7s&ab_channel=TED
[6] От англ. „false dilemma fallacy"
[7] https://ibl.bas.bg/rbe/lang/bg/%D0%BF%D0%B0%D1%82/
[8] От англ. „out of the box"
[9] От англ. „strawman fallacy"

intelligence and a drive for authenticity. I define empathy as the multi-layered cognitive-emotional ability to expand consciousness beyond oneself, to reflect another's reality, and to allow differences to coexist peacefully. Commenting on empathy in art, I direct the reader's attention to contemporary artists who are raising awareness of millennial issues such as race, age, nationality, and gender discrimination. These creators and art activists present empathy as a means of conveying global diversity and the changing values of the 21st century into art that carries a social message for the betterment of humanity.

FIG. 5

Empathy and art intersect in the work of contemporary Australian philosopher Roman Krznarik, named by The Guardian as "one of Britain's leading popular philosophers"[10], a "cultural thinker" and an "internationally recognized expert on empathy". One of his books is devoted entirely to the study of empathy and is called: "Empathy: A Handbook for a Revolution" (later renamed: "Empathy: Why It Matters and How to Get It")[11].

FIG. 6

In the program of the popular Blackwell Bookstores: "*Books in the life of...*" Krznarik says that all his books explore the question: "*How to live?*", to which classical academic philosophy fails to give a direct answer[12]. Roman writes a modern philosophy of "the art of living," as he calls it. He is the founder of the outstanding of its kind: *Library of Empathy*[13] and *Museum of Empathy*[14] and is one of the founders of the organization *School of Life*[15]. They are a "*digital treasure trove where inspiring books and films are shared to spark a global revolution in empathy*.". The museum is also a digital or traveling action art project. So far, 4 works, "exhibitions" have been presented: the mobile action-exhibition *"1001 books"*[16]; the *"Human Library"*[17] action, which will

[10] Modern Art Oxford, 2018, post, https://www.modernartoxford.org.uk/artist/roman-krznaric/

[11] Krznaric, Roman. 2015, "Empathy: Why It Matters, and How to Get It", https://www.romankrznaric.com/empathy-a-handbook-for-revolution

[12] Blackwell's Bookshops, Books in the life of Roman Krznaric, https://www.youtube.com/watch?v=0_JvCSb6faA&list=PLyazo1jEsir7M2cHnkBSis8HjSHIYwmOJ&index=13

[13] Empathy Library, https://empathylibrary.com/

[14] Empathy Museum, https://www.empathymuseum.com/

[15] The School Of Life, https://www.theschooloflife.com/

[16] Empathy Museum, "A Thousand and One Books", exhibit, https://www.empathymuseum.com/a-thousand-and-one-books/

[17] Empathy Museum, "Human Library", exhibit, https://www.empathymuseum.com/human-library/

be discussed later; the digital project *From There, From Where I Stand*[18] and the mobile action-exhibition *One Mile in My Shoes*[19], currently taking place in Cluj Napoca, Romania. What is interesting about the latest exhibition is the decision to provide shoes to people of all varieties of professions, skin color, gender, nationality and religion and give them away to the public who will walk at least a mile in them. Such an approach aims to encourage a person to empathize with others and accept diversity. This understanding of building empathy is seen as a legitimate relation to empathy by other humanitarians as well. An example is American author Harper Lee with her Pulitzer Prize winning novel *To Kill a Mockingbird*. She writes: "*You never really understand a guy ek, until you look at things from his point of view ... Until you step into his shoes and walk in them.*"[20]

FIG. 7

Krznarik and his team are researching the same motto. Their efforts to spread the idea of empathy can also be seen in the exhibition: "*From Where I Stand*": a collection of audio and visual stories of people living through the 2020 lockdown.

Empathy, a concept that attracts more public attention today than at any point in history, also provokes heated debates. It is contested by its critics as a generally valid tool for improving the world. "*You can always tell when a new idea becomes popular,*" says Kryznarik, "*… people start criticizing it.*" Krznarik's statement sounds logical, as it could be supported by examples from history. But when do we know if an already popular theory is valid? As scientific truth, also theoretical truth, for and against the subject under consideration, another "error of the present," as Jacob Johann von Wexkull called it in his 1904 book: "*The Environment and Inner World of the animals*"[21]? Another interesting look at the truth of a given theory is Einstein's statement on the occasion of the intense criticism collected in the 1935 collection: "*One Hundred Authors Against Einstein*" – about his theory of relativity. "*If I were wrong, one professor would be enough*" said Einstein. But is it so when these hundred authors change direction and

[18] Empathy Museum, "From Where I'm Standing", exhibit,
https://fromwhereiamstanding.empathymuseum.com/
[19] Empathy Museum, "A Mile In My Shoe", exhibit, https://www.empathymuseum.com/a-mile-in-my-shoes/
[20] You never really understand a person until you consider things from his point of view—until you climb into his skin and walk around in it",p.39
[21] Johann von Uexküll, Jacob. 26 July, 2022,Environment and inner world of the animals: Bio-Cybernetics Hardcover – Large Print, p.5, Introduction,
https://www.amazon.co.uk/dp/B0B7QCWQFF/?coliid=I2M6JNIYFQJYXC&colid=38VB83HT0RQL4&psc=1&ref_=lv_ov_lig_dp_it

from "against" stand "parallel to"? Of course, his wit is undeniable. Whether a Canadian-American professor of psychology at Yale University, Paul Bloom, is enough to challenge empathy, I will consider in the following paragraphs.

FIG. 8

The title of his book: "*Against Empathy*"[22], causes conflicting feelings in quite a few residents of North American society, or as the writer shares from his experience, it is met with "laughter out of embarrassment"[23]. The citizens' discomfort is related to the fact that they do not understand why anyone would go against such a valued human ability, associating it with good neighborliness and peace. At the root of this divergence of values seems to be a misunderstanding. As an academic researcher, I will critically examine this perspective to gain an objective view of the arguments against empathy. Bloom's decision to set the leading title of his book in a tone of negation of empathy sets the stage for perhaps the element of shock he seeks. The book's subtitle: "*An Example of Rational Compassion*" is also provocative. He takes the term "empathy" in a way that does not correspond to the modern reading of the word, studied by a number of researchers of this phenomenon: cognitive specialists, psychologists, sociologists, including neuroscientists, which I give a brief overview in my first report on the subject: "*Empathy in Millennial Art*" from 2021. As an attempt to summarize their conclusions, empathy can be seen as an emotional-cognitive ability beyond learned conditioned human responses, ie. it could well be seen as 'rational compassion', the very phrase that Bloom proposes to replace the word 'empathy'. While entitled to his own terminology, Bloom moves away from the point of giving another perspective on empathy, as he himself claims to do.

I will call the empathy that Bloom talks about "reactive emotion" and define it as a kind of instinctive reaction that lacks rationality, logic, and distance from the object of identification. With it, sympathizing with prejudice occurs – the person begins to feel completely like someone else with whom he has a lot in common and whom he likes. In fact, Bloom's remarks ring true for the dark side of empathy and the problems that arise from it. It remains unclear, however, whether everything remains in the "vacuum" of the professor's "either-or" statements: "against empathy or for empathy." Haven't

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[22] Bloom, Paul. 2016, Ecco, "Against Empathy", https://www.amazon.com/Against-Empathy-Case-Rational-Compassion/dp/0062339338
[23] Bloom, Paul. Aug 20, 2014, Forum: philosophy, Against Empathy, https://www.bostonreview.net/forum/paul-bloom-against-empathy/)

humans transcended their instinctual biology at least as far as reason meets feeling, and why can't empathy be a conscious effort to do just that, to be an integrated approach to society's problems? If one moves the perspective outside the box of these views and actually questions the position of empathy as a problem, as Bloom puts it, then through the prism of personality development psychology, such as trauma psychology, for example, we can read the reasons for the emotional instinct of experiencing a lack of emotional intelligence and an inability to establish healthy emotional boundaries.

In an interview on the Canadian show "The Agenda With Steve Paikin", dated 02/14/2017[24], Bloom states that empathy, for him, exists only when we judge who deserves to be gifted with empathy and who does not, according to our view and likes, even if they have a racist slant. This argument sounds more like a conditioned reaction of the wounded psyche than a conscious one wire process of understanding. On the contrary, the exercise of empathy should be devoid of judgmental feedback. Bloom also opposes empathy because he sees it as literally feeling the feelings of others. Here the statement can be seen as a "simplification", a kind of logical fallacy similar to a "straw man" or an argument that looks at things only on the surface, minimizing their qualities. Indeed, applied as a volitional skill, empathy succeeds in creating a reasonable distance from the other person's emotional turmoil. This distance is achieved with the ability to observe a person from the side – himself and the other, to look at things from a bird's eye view and, as they say, not to be "inside the soup"[25]. If he remains in the emotional experience of the other, immersed in it, he will not see the whole picture, he will not be able to understand the other, and then it will be impossible to call this "empathy". The distance of volitional empathy is critical to rational empathy. In this paper, I do not consider empathy as a reaction, but as a tool and an effort of intention.

In Bloom's interview, the professor goes on to give two unique alternatives for people's willingness to help. I quote: "*We are smart enough to understand that, although it may not feel so good, helping a thousand people is better than helping one.*" Looking at a statement like this, a critical thinker might point out the following the unhealthy logic: either you'll help 1,000 strangers and that makes you good, or you'll help one person and that's bad. This sounds alarmingly like the logical fallacy of the "false dilemma." If one follows the professor's advice, one will also arrive at the false logical

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[24] The Agenda with Steve Paikin, Feb14, 2017, "Toronto Vs. Everybody; Against Empathy" https://www.tvo.org/video/paul-bloom-against-empathy
[25] От англ. "In the soup", in trouble

conclusion, laden with guilt, that one should not feel good about helping others. It would not be an exaggeration to say that a passive-aggressive tone mixed with shame is present in his assertion that if one wants to "scratch one's empathic itch," one should only help those who are close to one will be grateful. The conversation is followed by the patronizing assessment: *"...That's not bad!..But if you really want to change the world, you have to do something else*." Actually, the truth is, there is no such dilemma. One can help a thousand and one at the same time, there is no need for anyone to choose in such a situation. It is also not necessary for relatives to thank the one who helps them, and there is no reason for those thousand people who are in another country not to thank their benefactor by e-mail, with a letter, and even travel to him in person. The claim that it makes sense to help only those whom one does not know, far away from him, is just as irrational as Bloom's claim about empathy. Every action, local or not, improves things at the global level. There are no facts to confirm that helping one person could not affect the whole of humanity – or that the so-called: "butterfly effect" would occur. No one knows or can determine who or which group of people is "more worth" helping (in Bloom's words).

FIG. 9

Bloom also argues that empathy is harmful because it can be used as a weapon of manipulation. Again, the logic of the "straw man" is heard - i.e. distorting the qualities of an object or focusing on only one of its characteristics. Let's look at the facts of life, it turns out that it is not so simple. Art, both visual and musical, can also be used as a weapon of manipulation, we know from history that this is exactly how it was during totalitarian regimes. But does this mean that the following conclusion should be drawn: "Art is harmful because it can be used to manipulate the masses"? Does it mean that art should be denied because it could manifest itself on a mundane mass level, or does it mean that people could develop the qualities needed for creativity that lifts the consciousness of others instead of imprisoning it in box? Isn't every lurch to extremes a toxic manifestation? Neither the lack of empathy for the neighbor, nor empathy only for the neighbor can be a correct approach, the only recipe for compassion. However, if an entire society is conditioned from childhood with values of superior race, ethnicity, gender, age, etc. , it will react according to these established patterns until it addresses and illuminates them through the critical thinking of the adult. A society without self-correction risks remaining vulnerable to emotional manipulation. In this regard, Bloom points to the use of empathy as a weapon by politicians, businessmen and even NGOs

with charitable purposes. A perfectly valid argument from the psychologist: the media's use of empathy as a weapon is one of the biggest problems facing modern society. The manipulation and overdose of heartbreaking videos on social media has a two-fold effect. It can create pressure through feelings of shame and guilt to make one give away one's resource, or it may cause one to withdraw from the idea of charitable action, thus leaving the cause, even a true one, without support. Extreme manifestations are another dark side of this type of Bloom's empathy, or as I call it, reactive emotion, and can lead to new ideologies and fanaticisms, overexposed actions devoid of all rationality. I would argue, however, that the psychology professor's example of sending hundreds of teddy bears to abuse victims who don't even want to receive them is scratching the senders' "empathy itch," as Bloom calls it. I'd call it more of an inability to adequately deal with emotional pain than the gratification of emotional longings out of sentimentality and nostalgia.

The definition of the phenomenon of empathy is developing gradually, in parallel with the psychological and social processes of the 21st century. Roman Krznarik makes the following comment: "*Don't confuse empathy with the golden rule: 'Do to others as you would have them do to you.'. Empathy is more difficult: it requires us to imagine the views of others and act accordingly*"[26] and I would add, "and to train our mind in its ability to distance its attention at a safe distance from the object of empathy."

Last but not least, critics of empathy raise the question of how far it, applied in art, contributes to inciting others to action. "*Can art change society? Can art really change the world?*"[27] asks the British Tate Museum in one of its publications, calls artistic and enthusiastic natures to action. Tate does not provide an answer, but continues to seek it through the opinion of artists and authors to engage in this debate. Perhaps one example from human history can provide an answer to these questions and that is the book: *Uncle Tom's Cabin* by Harriet Beecher Stowe, published on 03/20/1952. The work is known as a fact to have contributed to sparking the American Civil War between the North and the South in slaveholding America. Her perspective, albeit that of a white woman at this particular moment in US history, manages to challenge the then-

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[26] Krsznaric, Roman. 2010, "School of Life:ideas for modern living:empathy", The Guardian, article, https://www.theguardian.com/lifeandstyle/2010/mar/28/roman-krznaric-ideas-modern-living-empathy
[27] Tate Talking Point, "Can Art Change Society?", post, https://www.tate.org.uk/art/tate-exchange/can-art-change-society

widespread assumptions and prejudices of descent, privilege, race and power. A conversation between the author and President Lincoln in 1862 is historically documented, in which he famously said, "*So you are the little lady who wrote the book that started this great war!*"[28]

FIG. 10

"*And if you had to choose only one book to take to a deserted island, what would it be?*" This interesting question makes one prioritize their views and the things that make sense to them in order to choose the right book. At the same time, the meaning of the word "book" changes its meaning with time. Today, for example, there are "books" that are read only once and, like Buddhist art practice, can never be repeated in the same way. "*Do you want to be a book?*" is a question that people usually don't ask themselves as children. Little Ronnie Abergel, for example, usually thought he wanted to be a lawyer when he grew up to fight injustice. He later realized that he didn't want to judge anyone, but he still wanted to make a difference in the world and thus became a "book". It is about the Dane[29] who created the first action of its kind: "*Human Library*" in the year 2000[30], which today exists in 85 countries on 6 continents and asks the question: "*Do you want to be a book?*". Quite an interesting phenomenon of the 21st century. Instead of books, people are hired to tell their "reader" their experiences or answer their questions with their opinion. They sit opposite each other and begin to communicate. But there are rules. Communication should be equal, with respect for the partner and without prejudice to his choices. "*Don't judge anyone*"[31] is the slogan of Ronnie's library website. The idea of this "non-violent communication", which gives enough space and freedom to the other to express himself without judging him, is the idea of developing empathy in human relations. Isn't this the greatest dose of empathy that can be experienced – from meeting face-to-face?

FIG. 11

Anyone familiar with at least some conceptual contemporary art can easily draw an analogy between the Human Library and Marina Abramović's performance: "*The*

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[28] History, This Day in History, Mar 20, 1952, "Uncle Tom's Cabin is published", article, https://www.history.com/this-day-in-history/uncle-toms-cabin-is-published
[29] Eclectic Spacewalk, Conversation #4, Copenhagen, Dec 21, 2019, https://www.youtube.com/watch?v=kUa-Y17YfdE
[30] Human Library: unjudge someone, https://humanlibrary.org/
[31] От англ. *Unjudge someone, to stop judging someone, to remove the judgement from someone*

artist is present"[32]. For almost three months, eight hours a day, Marina met the gaze of 1,000 strangers, many of whom were moved to tears. She makes eye-to-eye contact with anyone who sits across from her at the table, regardless of gender, race, color, nationality or social status. Again, the question of understanding the other is explored – looking carefully into their eyes, creating a bridge between me and you on a more intimate level. The boundaries between the different elements are melting the universality of emotional experience. One is never alone in one's emotions and never will be, even on a lonely island.

FIG. 12

As with the human library, so with Marina, man displaces the work and himself stands in the place of the manifesto. We read his credo behind his action. The Cuban art-activist Tanya Bruguera also takes this position with her statement: "*What becomes art is what the public gets after leaving the exhibition, the action*".[33]

FIG. 13

Painting is no exception. Influential works on two-dimensional media also exist as part of 21st century eclecticism. Taking, for example, the 2020 title*: Young Heroes of Social Impact: Why and How Faviana Rodriguez and the Center for Cultural Power Decided to Change Our World[34]*. Faviana, born 1978, is an interdisciplinary artist, cultural strategist and social justice activist based in Oakland, California[35]. She embodies the perspective of a first-generation American artist with Afro-Peruvian and Latin roots. Her art deals with migration, gender justice, climate change, racial equality and sexual freedom. "*I'm passionate about igniting change where art and social movements meet because I'm an artist myself.*" says Faviana in her interview. "*And art should reflect our many diverse experiences and be the thread that unites us as human beings. It shouldn't simply reflect the experience of a dominant group.*" Rodriguez is

32 Abramovic, Marina. 2010, "The Artist is Present", performance, MOMA Learning, NYC, https://www.moma.org/learn/moma_learning/marina-abramovic-marina-abramovic-the-artist-is-present-2010/
33 Tate, Tania Bruguera and Tate Neighbours – The Art of Social Change | Tate Exchange, 2018, Exchange,https://www.youtube.com/watch?v=9TI9QSAs9gs&list=PLyazo1jEsir7M2cHnkBSis8HjSHIYwmOJ&index=20&t=187s
34 Bauder, Penny. "Young Social Impact Heroes: Why and How Favianna Rodriguez & The Center for Cultural Power Decided To Change Our World", article, 2020, https://medium.com/authority-magazine/young-social-impact-heroes-why-and-how-favianna-rodriguez-the-center-for-cultural-power-decided-429dea509ade
35 Favianna Rodriguez, About, Biography, https://www.favianna.com

also the co-founder and president of the Center for Cultural Power, a national organization that empowers artists to disrupt the status quo and ignite change at the intersection of culture and social justice[36]. Her trademark in the paintings is the butterfly, which is a symbol of migration. "*Migration is a natural experience, it's a human experience*" explains Faviana Rodríguez. "*We cannot deny people the right to move to improve their lives.*"[37]

FIG. 14

2020 is the "Year of Kindness"[38] for the Canadian artist Tico Kerr. Born in Edmonton, Alberta, Canada in 1953, includes bold explorations in painting, collage, drawing, printmaking, mural painting, performance and scenography. Kerr's visual vocabulary evolved stylistically through successive series. Explores the emotional power offered by the tension created between abstract forms and figuration.[39] Kerr is one of the artists featured in a new multimedia exhibition at the SFU Harbor Center in Vancouver as part of an event exploring the history, activism and experiences of people living with HIV. "*Hard to Kill*" is a self-portrait by Tiko Kerr, in which he, as a long-term HIV survivor, uses his discarded personal boxes of AIDS treatment[40]. Kerr finds his footing in art, in which he invests the meaning of a social message. "*I believe that with the scarce resources of the modern world, the only real resource we can rely on is creativity – to overcome social problems and environmental problems and all that. Creativity is essential for our survival*"[41] says the artist in an interview on the Splash platform.

FIG. 15

The survival of not only humanity, but the artists themselves is put to the test. Exhibitions of people of color, minority artists and women artists are becoming

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[36] Favianna Rodriguez, About, Biography, https://www.favianna.com

[37] Thrasher, Steven W. "Burning Man Festival", article, Black Rock, Nevada, 2015,https://www.theguardian.com/culture/2015/sep/01/burning-man-art-installations-festival

[38] Tiko Kerr, A Year of Kindness:December, 2020, https://www.artsy.net/artwork/tiko-kerr-a-year-of-kindness-december

[39] Tiko Kerr, About, Biography, https://www.tikokerr.com/page-3/page-10/

[40] Chan, Cheryl. "History of HIV told by Vancouver artists in new gallery show", Article, 2019, https://vancouversun.com/news/local-news/history-of-hiv-told-by-vancouver-artists-in-new-gallery-show

[41] Fleischmann, Ariane. "Splash artist tiko kerr on halos, creativity as resource, and resilience", Article, 2017, https://www.artsumbrella.com/stories/splash-artist-tiko-kerr-halos-creativity-resource-resilience/

increasingly imperative. "*It's like we don't exist*" says Jane Quick-to-see Smith in *Guardian*. The 80-year-old Native American woman became the first Native American artist to see her painting purchased by the *National Gallery of Art* in Washington[42]. Smith, who is a member of the Salish and *Kootenai Confederacy Nation* in Montana, added that the museum's acquisition of her painting comes at a difficult time in history, given the changes in the world. "*My painting has been caught in the perfect storm: Black Lives Matter[43], the death of George Floyd, Covid-19, the presidential election, ... the Creek case*" she says. "*These are possible reasons why my painting was purchased.*" Her 1992 work, "*I See Red,*" is an 11-foot-tall mixed media on canvas. It presents an interpretation of the arrival of Christopher Columbus in America. It can be viewed in the pop art galleries of the East Building of the museum, along with works by artists in the category of Louise Bourgeois and Jasper Johns. Smith's work emphasizes how alienated Native Americans are in modern culture and how erased and neglected their history is.

FIG. 16

The exploration of race, stereotypes, gender, and identity throughout American history is a theme that excites many other contemporary artists as well. An African-American artist stands out very strongly nationally and internationally. It's about Cara Walker and her amazing giant black silhouettes. Her work is impressive not only in size. Walker portrays historical narratives that lead viewers toward a critical understanding of the black past while offering a rethinking of contemporary racial and gender stereotypes. The "*Caravan of Catastrophe*"[44] or Katastwolf Caravan is a project in which Kara creates a caravan, similar to those of the 18th century, from the time when in New Orleans, the Americans traded and transported slaves. The walls of the caravan are marked with metal silhouettes of scenes from the lives of enslaved people, and inside the caravan there is a special musical machine that, according to Walker's research, produces the sounds that accompanied the enslaved during their stay at the port of

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[42] Sayej, Nadja. "'It's like we don't exist': Jaune Quick-to-See Smith on Native American artists", Article, 2020, https://www.theguardian.com/artanddesign/2020/jul/29/jaune-quick-to-see-smith-native-american-art
[43] Black Lifes Matter movement, Article, 2021https://www.theguardian.com/world/black-lives-matter-movement
[44] Kara Walker & Jason Moran: Sending Out A Signal | Art21 "Extended Play", 2018, Art 21, https://www.youtube.com/watch?v=9JKVgfHfrQo
[44]

Algiers Point[45] on the Mississippi River. In her project, Cara also emphasized the lack of memorials in these places to reflect the true scale of black pain. The artist uses drawing, painting, text, shadow puppetry, film and sculpture to illuminate debates on many taboo subjects such as violence, sexuality and subjugation during slavery, and the psychological traumas that continue to this day[46]. Her latest exhibition, from 2020, called *A Black Hole is All a Star Wants to Be*, is a collection of hundreds of her drawings that have not been shown in this format in decades.[47]

FIG. 17

"*Black Lives Matter*"[48] is a slogan that echoes back to the days of slave-owning America, but has been amplified to a rallying cry in the last few years. This is because, although every single life matters, people of color are systematically subjected to violence and racism even in the 21st century. Calida Rawls is a Los Angeles-based artist whose work reflects and challenges societal perceptions of black lives. Her hyperrealistic works depict the bodies of men and women of color submerged in water in all sorts of wondrous formations and motion capture. "*I use soft colors that people wouldn't associate with black people*" Rawls shares. "*I love the duality of water and how it can serve as a metaphor for life*" she says. "*It is beautiful and healing and I feel weightless and unencumbered in it. But... it can be both restorative and dangerous: historically, black people have always had a complicated relationship with water (for example, related to the escape attempts of the enslaved from Africa and taken to the Americas)*". Kalida first became famous for her cover art[49] for Ta-Nahasi Coates'[50] bestseller *The Water Dancer* – a book that Oprah Winfrey called "*one of the best books I've ever read in my life.*" The debut novella about the challenges in the life of an enslaved black boy will be adapted into a film by Oprah and Brad Pitt's companies,

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45 Kara Walker & Jason Moran: Sending Out A Signal | Art21 "Extended Play", 2018, Art 21, https://www.youtube.com/watch?v=9JKVgfHfrQo
46 Walker Art, Art and Artists, Kara Walker, https://walkerart.org/collections/artists/kara-walker
47 Kara Walker. A Black Hole is Everything a star wants to be. 2020. Kunstmuseum Basel, https://www.youtube.com/watch?v=7ORJ04MagKk
48 BLM, Black Lives Matter
49 Furman, Anna. "The Artist Whose Paintings Have Captivated Ta-Nehisi Coates Calida Rawles on depicting godlike black bodies.", Article, 2020, https://www.thecut.com/2020/03/the-artist-whose-paintings-have-captivated-ta-nehisi-coates.html
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Variety[51] magazine announced. It is not yet clear whether Kalida's work will be included in the production. The new exhibition of the young author "*From the Other Side of Everything*" from 2021 can be viewed on her website.

FIG. 18

Art stimulates empathy. Painting, for example, while revealing a narrative, works with different kinds of visual intensity to evoke emotions in those who observe it. Even abstract art, seemingly devoid of narrative, provokes our imagination to consider what the meaning of the image might be, why the artist might have created this particular thing. Thinking about how different lives can look, be experienced, to be – this makes it possible for a person to feel closer to all humanity in its diversity. When there is no empathy, the danger of having only one story, the "one and only story" that Chimamanda Adichie talks about, is legitimate. Let ART tell a different story.

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5.　　　От англ. „strawman fallacy"

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Fig. 1

Времева Линия

(автор: Ивелина Светозарова Георгиева)

Милениалният-Зи арт по пътя към Алфа арт

1990s
Пост-колониално изкуство
Метамодернизъм
Ирония
Нео поп
Кич поп

2010s
ПО-КО арт (Пост-контемпорари)
Нова Искреност/Пост-ирония
Хиперреализъм
Дигитално изкуство

АПРОПРИАЦИЯ ОТ МОДЕРНИЗМА	ЕМПАТИЯ, ЕКОЛОГИЯ МНОГООБРАЗИЕ И ДЕМОКРАТИЧНИ ПРАВА	ГЛОБАЛНА АПРОПРИАЦИЯ	АВТЕНТИЧНОСТ ОТВЪД ГЛОБАЛНАТА АПРОПРИАЦИЯ

2000s
Милениално изкуство
Политическа коректност
Абстрактен нео-експресионизъм ("зомби реализъм")

2020s
Алфа арт?
Нова нормала: ценности
Изкуствен интелект в изкуството
Мета-ирония

Fig. 2

Автентичност

(автор: Ивелина Светозарова Георгиева)

АВТЕНТИЧНОСТ=ИСТИНСКИ ГЛАС

Тя е човешката ИСТИНА, следователно е изначално добра. Чувства се като правилното нещо. Носи радост и спокойствие, следователно създава условия за заемане на наблюдение с ДИСТАНЦИЯ. ДИСТАНЦИРАНЕТО носи свободното пространство, от което човек се нуждае, за да вижда по-добре и да вижда повече. Когато човек вижда повече, има възможност да заеме РАЗЛИЧНА ПЕРСПЕКТИВА. ЗАЕМАНЕТО НА РАЗЛИЧНА ПЕРСПЕКТИВА позволява да се разрешават проблемите по-ефективно, по-обективно, по-цялостно и по-бързо, всичко това, чрез КРИТИЧНО МИСЛЕНЕ. КРИТИЧНОТО МИСЛЕНЕ съдържа в себе си приемане на съществуването на РАЗЛИЧНИ ГЛЕДНИ ТОЧКИ, а приемането на РАЗЛИЧНИТЕ ГЛЕДНИ ТОЧКИ означава приемане на различните преживявания на другите за ВАЛИДНИ. ВАЛИДАЦИЯТА дава шанс на многообразието и елиминира единствената история като вярна. Всички тези: автентичност, дистанциране, заемане на различна перспектива, критично мислене, валидация на различието и многообразието съставят феномена на милениалната ЕМПАТИЯ.

Fig. 3

Fig. 4

Критично мислене

Fig. 5

Емпатия

(автор: Ивелина Светозарова Георгиева; изображение: /via @mikeindustries" by Buster Benson is licensed under CC BY-SA 2.0.)

Човешкият потенциал за многостранна интелигентност

Емпатията не е характеристика единствено на емоционалната интелигентност, а компетентност, която включва: емоционална интелигентност и критично мислене, креативността на човешкия капацитет за автентичност и цялостните когнитивни способности за разрешаване на проблеми. Бих казала, че интуицията е друга сложна способност, използваща призмата на емпатията.

IQ = когнитивна интелигентност

EQ = емоционална интелигентност

Емпатия=AQ+CQ+EQ+IQ

AQ=коефициент за автентичност
(способността за изчистване на ума и емоциите от обуславяне, неадаптивни стратегии; изразяване на индивидуалните нужди и желания, като по този начин позволява оригинално творчество)

CQ=критично мислене (аналитичната способност да се разграничат погрешна логика, "магическо" мислене, сантименталност и носталгия от адекватната логика на здравия разум)

Fig. 6

(автор: Ивелина Светозарова Георгиева; изображение: Kate Raworth, CC BY-SA 4.0 <https://creativecommons.org/licenses/by-sa/4.0>, via Wikimedia Commons)

Срещнете Роман Кръзнарик.
→ Австралийски популярен философ
→ Водещо име в сферата на емпатията
→ Влияния: Виктор Франкъл
→ Книгата "Емпатия: защо има значение и как да я получим"
→ Книгата "Добрият прародител"
→ Книгата "Carpe Diem: Възвръщане"
→ +поддръжниците: Пинкър, Рифкин, Де Вал, Лакоф, Хънт и т.н.
→ Мото: "Емпатията прави демокрацията"

Fig. 7

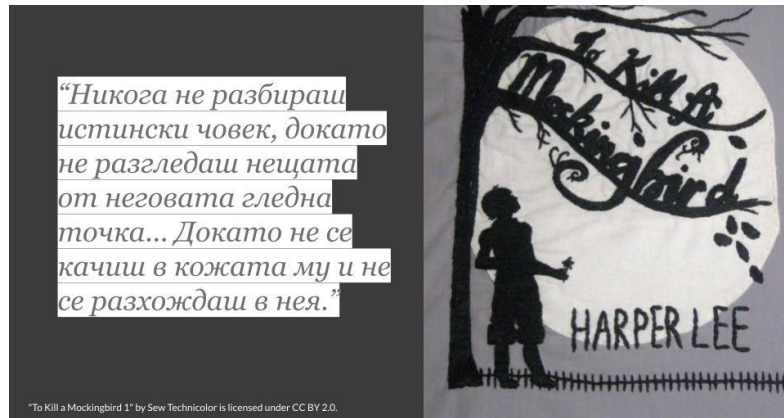**"To Kill a Mockingbird 1" by Sew Technicolor is licensed under CC BY 2.0.**

Fig. 8

(автор: Ивелина Светозарова Георгиева; изображение: Kate Raworth, "Paul Bloom no Fronteiras do Pensamento Porto Alegre 2014" by fronteirasweb is licensed under CC BY-SA 2.0.)

Fig. 9
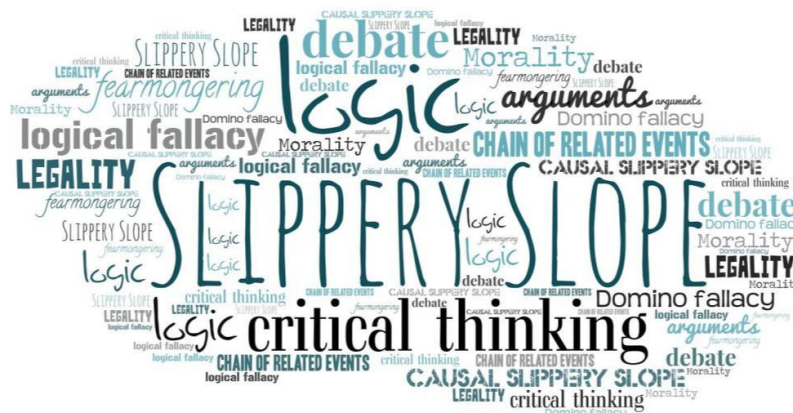
www.epictop10.com

Fig. 10

(автор: Ивелина Светозарова Георгиева; изображения: "Uncle Tom's Cabin; or, Life Among the Lowly [Title page]" by Boston Public Library is licensed under CC BY 2.0.

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Ashley Arnold and Clio Admin. "Harriet Beecher Stowe and Abraham Lincoln Statue."

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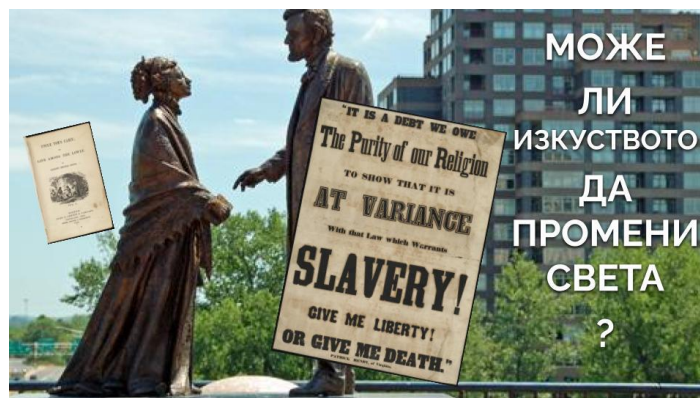
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Fig. 11

"Human Library at University of Essex" by University of Essex is licensed under CC BY 2.0.

Fig. 12

Andrew Russeth from New York, New York, CC BY-SA 2.0 <https://creativecommons.org/licenses/by-sa/2.0>, via Wikimedia Commons

Fig. 13

Изображения: Lia Villares, CC BY 3.0
<https://creativecommons.org/licenses/by/3.0>, via Wikimedia Commons; photo
courtesy Art21/Studio Bruguera

Fig. 14

Изображения: Jami430, CC BY-SA 4.0 <https://creativecommons.org/licenses/by-sa/4.0>, via Wikimedia Commons; "By @jeunedelarue 'Tu lucha es mi lucha -- Favianna
Rodriguez #lucha #chicano #chicana #struggle #decolonize #resurgence
#faviannarodriguez #art #educate' via @PhotoRepost_app" by Pedro Fanega is licensed
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Fig. 15

Images: https://alchetron.com/Tiko-Kerr**; https://www.tikokerr.com/**

Fig. 16

Images: "Jaune Quick-To-See Smith, Indian Science" by NASA Universe is licensed under CC BY 2.0.,

"File:Art and Feminism Wikipedia-Edit-A-Thon at SAAM 0364.jpg" by Avery Jensen is licensed under CC BY-SA 4.0.,

Fig. 17

Images: studio international, CC BY-SA 3.0

<https://creativecommons.org/licenses/by-sa/3.0>, via Wikimedia Commons;

"kara walker" by ursonate is licensed under CC BY 2.0; "An entire wallful of

Kara Walker, oh my" by surtr is licensed under CC BY-SA 2.0.;

http://markmcleod.org/wp_clevelandstateart/2018/11/11/review-of-kara-walker-by-kathy-klaaren/

Fig. 18

Images: https://news.artnet.com/art-world/calida-rawles-profile-1922186;

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ART THERAPY

Art therapy as an interactive approach for environmental education of kids for sustainable academic education. Practical experience of Atelier "HB"

Iliya Boyarov,

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ABSTRACT

The purpose of education has always been to serve society for our better future and for strong relations. Relations not only between individual units in society, but also our relations as part of a common organism called nature. The connection between us and nature is getting more and more distant and we forget that we are a part of nature. Awared of this fact, at Atelier HB we try to make the connection between education, nature protection and art. The didactic methods we use are based on interactive learning and art therapy. Through the method of interactive learning, we manage to make the connection between nature conservation, art and crafts, as well as the knowledge of materials, and through the methods of art therapy, we want to remove the stress caused by school problems and our hectic lifestyle.

Art therapy as an interactive approach for environmental education of kids for sustainable academic education. Practical experience of Atelier "HB"

The purpose of education has always been to serve society for our better future and for strong relations. Relations not only between individual units in society, but also our relations as part of a common organism called nature. The connection between us and nature is getting more and more distant and we forget that we are a part of nature. Awared of this fact, at Atelier HB we try to make the connection between education, nature protection and art. The didactic methods we use are based on interactive learning and art therapy. Through the method of interactive learning, we manage to make the connection between nature conservation, art and crafts, as well as the knowledge of materials, and through the methods of art therapy, we want to remove the stress caused by school problems and our hectic lifestyle.

One of the main goals of the Atelier "HB" studio of drawing and applied arts is the education and upbringing of love and professionalism in art and preserving nature. Part of the studio's activities is the preparation of candidate high school students (13 years) for the elite art high schools in the country, as well as the training of children in

the age group 7 - 12 years old. The activities suitable for this age group are called "Creative workshops" and with them the aim is to develop abstract-logical, spatial, aesthetic thinking and imagination in children as well as environmental problems in our society. In the creative workshops, the main task is to use more materials for recycling and art therapy methods as interactive approach of teaching. Dealing with such materials aims to show the unknown side of the "trash" that people make, but also to pay attention to children that everything unnecessary can be transformed into something beautiful that they themselves make. The studio's method uses art therapy as an easier way of reaching educational process for better understanding of environmental problems. And due to this education we believe in the sustainable future for the following academic education.

By recyclable materials that we use every day, we should manage to keep nature as clean as possible. Nurturing ecological thinking through art from in an early age is the other part of Atelier HB's tasks. Using the interactive learning methodology, we manage to create an atmosphere in which the given task remains only as an example and it is up to each student or group to decide how to complete the model. Interactive learning methods also gives us the freedom to let the children's imagination run wild without rudely interfering with the child-author's decision.

The success of these workshops also lies in the art therapy methods elegantly incorporated into the program and each given task. The main goal is to develop through art and fantasy all the important qualities for building a person with critical thinking, developed aesthetics and creativity.

From our experience so far, all children brought up in such an environment, grow up more successful, and that is why we believe in their successful academic development and in being guardians of the idea of art and nature.

Our practical experience is with over 100 children per week, for part of which we are partners with the Private Primary School "Dr. Maria Montessori" as well as the Gorna Banya National Educational School for Culture. The classes conducted there, as well as in our own school, prove the success of the methods used and the way they are presented. Based on the experience of countries with similar systems, namely studying the world around us through art, we managed to assemble a tool with which to arouse children's interest and passion for art, but also to raise the question of how through the actions of society we interfere with nature. By using ordinary garbage, we find a new application for the already unnecessary plastic packaging, bottles, old cardboard, yarn,

etc. In this way, we hope that the children will begin to see in each package something that they can make themselves and that the product is beautiful and ready for a new life.

The use of art therapy, as a broad-spectrum method of psychotherapy, which is used for treatment and psychotherapeutic correction, through art and creativity. The spectrum of problems is very wide: from interpersonal conflicts, through reactions to losses (post-traumatic stress disorder), psychosomatic disorders, to crisis states. Art therapy work helps to express experiences, problems and inner contradictions more clearly. This is especially helpful with people who are unable to define or refuse to talk about the traumatic experience. Imagination, depicted in a drawing or through clay figurines, very often provides an impetus for working with the therapist and facilitates the initiation of free speech about the problem. Often times, children who experience similar conditions express their problems and through the experience of the group or our own, we manage to react quickly and the child leaves freer and without the burden of the problem. Touching on this topic, our hectic daily life leads to a bunch of such problems not only in children, but also in us adults. Art therapy is entering more and more quickly as a way to solve cases related to personality. With this method, we believe that clearing up problems when they are still small and catching them early and on time, the child's growth and his sense of art is enhanced. This increases the interest in further development in the direction of academic education, regardless of whether it is an art high school or an art academy. Art therapy provides the subconscious and conscious connection that expressing through art leads to easier problem solving in a beautiful and spiritual way. In this matter, the love for art is also strengthened, because it remains a kind of a personal sanctuary and we hope that in this way, by working with many children, we will be able to ignite the flame of art and continue in the direction of a clear academic future.

Our experience so far shows that through these two didactic methods the development in mental and psychic and cultural terms gives a high result in the development of the students. More and more are those who want to continue in the direction of professional education in the field of arts. Many of the children manage to discover themselves and know how to move forward. Another very important observation is the discovery of talents in the field not only in arts, but also in science and sports - the three bastions of ancient ideals. By using the interrelationships between these three disciplines through art, gives the flow between them and they become much easier for understanding.

In conclusion, I can say that modern ways of education and their combination can lead to exceptional results in the development of individual units, and thus of our entire society. The academic future of the country depends entirely on the attitudes of the people who come after us and I think it is our duty to preserve and pass on our passion for art by showing its many faces. To secure this future we must learn to pass it on and protect it through the children, who will then carry on the work in a brighter and clear nature.

Thank you for your attention and keep the fire burning!

Study of the effect of the Projective Technique methodology on the aggressive behavior of children at the beginning of school age

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Abstract

Correction of aggressive behavior in children is one of the important subjects of psychological research. Aggressive behavior is a common type of problem behavior in children. As a form of maladaptive behavior, aggressive behavior develops slowly in the process of socialization of the individual. Developmental psychology shows that individual aggressive behavior has a relatively high degree of stability, and the level and strength of individual aggression in childhood has a strong predictive effect on an individual's aggressive behavior in adulthood. Children with more aggressive behavior are generally not accepted and recognized by their peers and easily become undesirable people in the eyes of teachers. If children live in such a negative environment for a long time, their physical and mental development will be affected. The aggressive behavior of children is not only detrimental to their healthy development, but also hinders their social, personal and cognitive development, and also affects the normal implementation of education. If aggressive behavior escalates and continues into adolescence, then it is easy to develop an aggressive personality disorder that leads to interpersonal tension and social difficulties. That is why the correction and prevention of aggressive behavior in children is extremely important and necessary for their healthy growth. This study takes an 8-year-old Chinese child as an example for empirical research. The researcher uses the projective technique of art therapy on aggressive children at the beginning of school age, studies the effect of the technique on aggressive behavior, summarizes the results of the study and makes a conclusion, which is useful to understand the inner anxiety and problems of aggressive children through children's drawings in order to help them get rid of difficulties in a more targeted way. It also helps to resolve the confusion and problems caused by teachers and parents who do not understand children's aggressive behavior in order to better prevent children's aggressive behavior. At the same time, attempts to use a projective technique to children at the beginning of school

age to perform art therapy on aggressive behavior have some guiding significance for the practice.

1. Literature overview

1.1 Studies related to art therapy

Currently, researches on children's projective drawing methods mainly include research on children's art therapy and psychological analysis of children's drawings. In the 1940s, it became increasingly recognized that a person's emotions and personality traits could be determined through drawing. During this period, painting is presented as an inner psychological state. People gradually accepted this point of view: paintings not only reflects inner psychological facts, but also express the subjective experiences of their author. Along with this, the term "projective drawings" began to appear, as well as projective drawing tests. During the period from 1940 to 1955, a large number of studies using projective drawing tests appeared. John Buck's House-Tree-Person H-T-P test is a well-known projective drawing test. The H-T-P test stimulates conscious and unconscious associations in children. Perhaps the most influential of projective drawing tests is Karen Machover's Human Projective Drawing Test and her research on the projection of an individual's inner psychology in human figure drawing. She believes that the human figure drawn by a person carries that person's impulses, anxieties and conflicts, as well as the characteristics of their compensation.[52] Elizabeth Koppitz also uses projective drawing techniques to explore the specifics of emotional issues in children's paintings. Unlike Machover, Kopitz does not use traditional psychoanalytic theory, but takes Sullivan's theory of interpersonal relations as the basis of his research and is more interested in how children think about themselves and how they perceive people important to them, as well as what their attitude towards problems and conflicts[53].

In the 1940s, there were many researches on art therapy, amongst which the research of Margaret Naumburg, who believed that art therapy was a symbolic language and that drawing was a way of expressing unconscious intentions[54]. Allowing patients to express themselves spontaneously in drawing is an effective method in

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[52] Machover, K. (1949). Personality projection in the drawing of the human figure: A method of personality investigation. Charles C Thomas Publisher. https://doi.org/10.1037/11147-000

[53] Cathy A．Malchiodi.Understanding Children's Drawings[M]. The Guilford Press.1998:6-9

[54] Cathy A．Malchiodi.Understanding Children's Drawings[M]. The Guilford Press.1998:12-17

psychotherapy. The researchers used projective drawing techniques in this approach not to diagnose the personality characteristics of individual cases, but to help children express their emotions and experiences through the creation of images, to relieve tension and finally get rid of psychological anxiety and problematic behavior.

The principles that should be considered by researchers in the process of interpreting children's paintings are summarized as follows: 1. The characteristics of children's paintings change with age, and the complexity and integrity of the works increase with age. 2. Children tend to exaggerate or omit the most significant parts of their art work – those who reflect the content of the author's life and emotional world. 3. Different materials and drawing techniques tend to satisfy different goals for children. For example, painting in one color is best for conveying ideas. Painting with different colors is best for expressing emotions. 4. Shapes, colors and compositions used by children are related to their personality and social development.

1.2 Research on aggressive behavior

There are many studies on aggressive behavior in different countries and in China, and these studies mainly include the following four aspects:

On the one hand, there is research on the definition of aggressive behavior. John Dollard, Robert Sears and others consider aggressive behavior as "*a reaction aimed at harming another living organism*"[55], E. Ammson defines aggressive behavior as "*behavior intended to cause harm or pain*", Hilgard (E.R. Hilgard) believes that "*aggressive behavior is the behavior of intentionally injuring others (both physically and verbally) or destroying property*".[56] Chinese scholars believe that children's aggressive behavior refers to behavior in which children try to harm other people or things, and this can be physical aggression (such as hitting, kicking, biting, scratching, pushing, etc.), verbal aggression (shouting, calling others by nicknames, belittling others, talking bad behind their backs, etc.), and it can also be trespassing on other people's property (such as forcibly taking other people's belongings, etc.).

The second aspect is a study of the types of aggressive behavior. Willard Hartup (Willard Hartup, 1974) divided aggressive behavior into two types: hostile aggression and instrumental aggression[57]. The purpose of hostile aggression is to take revenge or

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[55] John Dollard, Robert R. Sears **et al..** Frustration and aggression[M]. H. Milford, Oxford University Press.1939
[56] Hilgard, E. R. (1949). Human motives and the concept of the self. American Psychologist, 4(9), 374–382. https://doi.org/10.1037/h0058728
[57] Hartup, W. W. (1974). Aggression in childhood: Developmental perspectives. American Psychologist, 29(5), 336–341. https://doi.org/10.1037/h00376

harm others. It is also known as *Person-oriented aggression*. Instrumental aggression means that the goal of the attack is to obtain some tangible reward, such as a competition for toys or a place. The aggression of younger children was found to be higher than that of older children, mainly because younger children had more conflictual interactions and higher rates of instrumental aggression.

The third aspect is a theoretical study of the causes of aggressive behavior. Psychologist John Dollard (frustration-aggression hypothesis) believes that the cause of aggressive behavior is frustration. When a person is moving towards a particular goal after being thwarted, they will have a sense of frustration and this frustration will manifest itself in the form of aggressive behavior towards things or people. In the 1960s, Canadian psychologist Albert Bandura and other social cognitive theorists believed that aggressive behavior could be learned through observation, imitation, reinforcement, and other types of learned behavior. Psychologists believe that parents have an important responsibility for this. Recent psychological studies show that genetics account for about 50% of the influencing factors of child aggression, and part of the remaining 50% is caused by the interaction between parents and children. The so-called heredity does not mean that parents transmit a specific type of behavior such as beating and insulting to their children, but that what they transmit to their children are only natural characteristics such as the type of nervous activity, easy emotional excitement, strong excitability and quick speed of reactions. When these natural character traits are found in the right environment and soil, then aggressive behavior can be enhanced. According to the "instinct theory", aggressive behavior is out of instinct. For example, Conrad Lorenz (C. Lorenz) believed that aggressive human behavior depends on the accumulation of energy for attack. Once the accumulated attack energy meets appropriate external stimuli, it will be released through aggressive behavior. Young children come into conflict with others, or suffer failures, or experience unsatisfied needs and thus accumulate aggressive energy. Freud's Instinct Theory: Freud's school of psychoanalysis believed that aggressive behavior was caused by the death instinct (also known as the instinct to attack others instead of attacking oneself), because from birth a person has a death instinct, which can only be transferred, but not completely eliminated. If this innate aggressive energy during childhood is not properly restrained or ventilated, it will later create an aggressive character that affects the personality's behavior. In the early 1980s, information processing theorists, represented by Kenneth Dodge, emphasized that the generation of aggressive behavior depends not only on

social cues and cues that appear in situations, but also it depends on how the individual processes or interprets that information. Aggressive children show a bias towards explaining the behavior of others, so they tend to treat unclear information as provocative in a given situation. The above theories provide a theoretical basis for researchers to analyze the causes of aggressive behavior in both cases in accordance with children's drawings.

The fourth aspect is the study of methods for treating aggressive behavior. At present, the methods for correcting aggressive behavior mainly include the role model method, the role-playing method, the empathy training method, the emotional catharsis method, the behavior modeling method, etc. The above corrective methods give researchers some inspiration.

2. Specific experiment

2.1 Object of the experiment

H (not real name), 8 years old, currently in third grade of primary school, was born in China. He came to Bulgaria with his parents when he was three years old. His parents are Chinese. They came to Bulgaria very early and now they have a Chinese restaurant. H speaks Bulgarian and English language, and doesn't experience problems in communication. Since he is in a British school, he mainly uses English. H does not speak good Chinese, but his parents know Chinese and basic Bulgarian, so there are some obstacles in daily communication with his parents. H often gets into conflicts with classmates and has aggressive behavior. He is sensitive and gets very upset by the jokes of his classmates. Parents of other children said H was "very dangerous" and often received warnings from the school. Through ZOOM online meetings and several in-person school visits, I learned that there was a period of time when H would fall asleep in class, appear tired, and sometimes not be able to actively participate in learning activities. He couldn't stand the noisy environment during recess, felt irritable, and hoped the teacher would "*stop the noise*". I learned from his parents that H is very addicted to his tablet (IPAD), likes to play games and watch videos, and also has aggressive behavior at home, like hitting the tablet screen when the video stops.

Summary: H's problems include adjustment problems, poor interpersonal interaction, aggressive behavior, and problems with emotional control.

2.2 Description

The researcher goes deep into all aspects of the subject's life over a period of time to observe and understand his life, social interaction and personality and uses the method of semi-open interviews. Through these interviews, basic information was collected from the child's teachers, parents and relatives. Prepared 13 therapie sessions based on personality traits, interests and problematic behavior of the case and with reference to relevant local and foreign literature. Each activity is expected to complete two topics, including a total of 26 topics, as the main method of intervention.

In the first therapy session I achieved a good interaction with H through games. With the help of projective drawing test "self-portrait" and "H-T-P", I initially realized that H's individual adaptability was weak and he was still resisting.
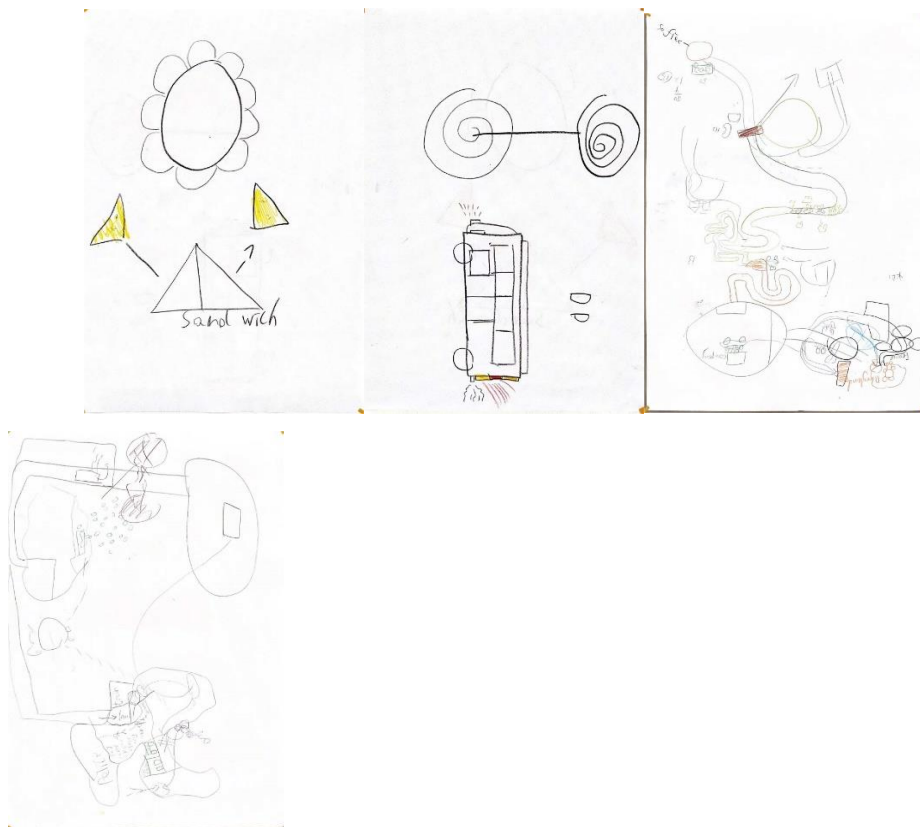
In the second therapy session of the "My Name" warm-up, I learned that H self-identifies as Chinese. From his irritability and aggressive behavior, we found that he does not do well in expressing emotions and gets easily distracted.
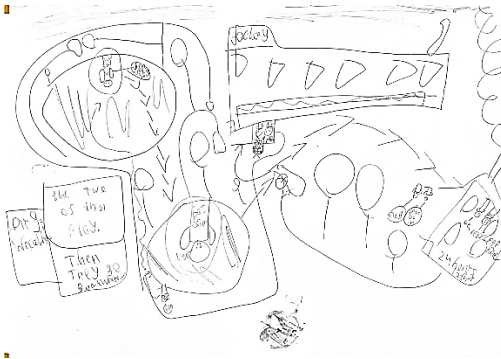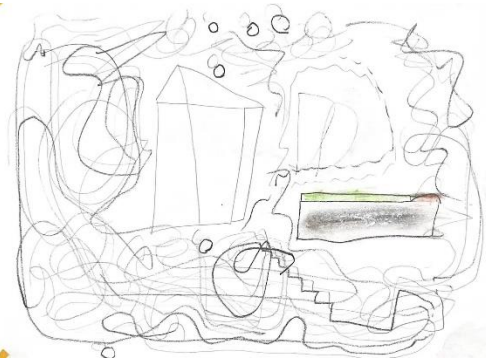
In the third therapy session, H expressed his negative emotions toward his father's temper by making clay. Through Kinetic Drawing of his family, I learned about the relationship and interaction between him and his family members.

In the fourth therapy session through the "Cake of Feelings", H was able to understand the variety of his emotions, learned to observe and correctly express his feelings. Through the Wish Tree exercise, I was able to access H's current thoughts and desires.
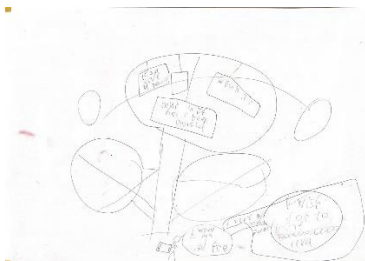
In the fifth therapy session, through the exercise "My Favorite Person" we can further understand H's interpersonal relationships in life. The vigorous scribbling of the drawing suggests that H hides and represses negative emotions towards his mother.


In the sixth therapy session, through "Your feeling now" and "I as a superhero" therapy increased H's trust in me and his positive emotions.
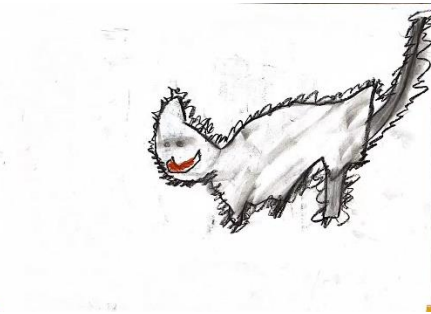
In the seventh therapy session, the drawing during the warm-up was the first time H felt satisfaction in his own work. The colors are very bright and light, reflecting H's opinion of himself. H's choice of collage with the polar bear family reflects his need for family care and security.

In the eighth therapy session, by drawing "My Anger, Sadness, Happiness" I helped him to understand the situations in which he produces these emotions in order to achieve better emotional control and expression.
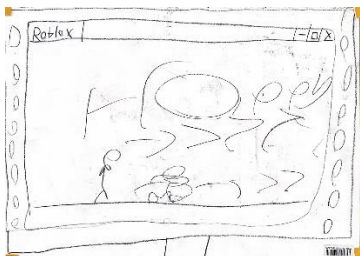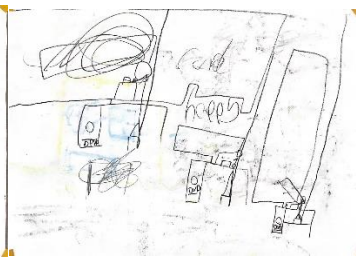
In the ninth therapy session, from the chaotic and strong lines that H draws during the therapy, one can detect his lack of patience.

In the tenth therapy session, through drawing, H was able to express his anger at being hit with snowballs at school. This exercise acted as a catharsis and caused H to vent and transfer his anger onto the drawing.
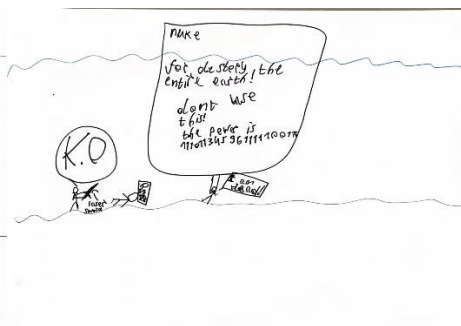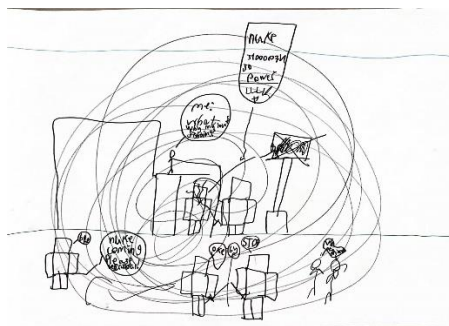
In the eleventh therapy session, through an exercise to understand H's dreams, the main reasons for his aversion to noisy environments are explored.
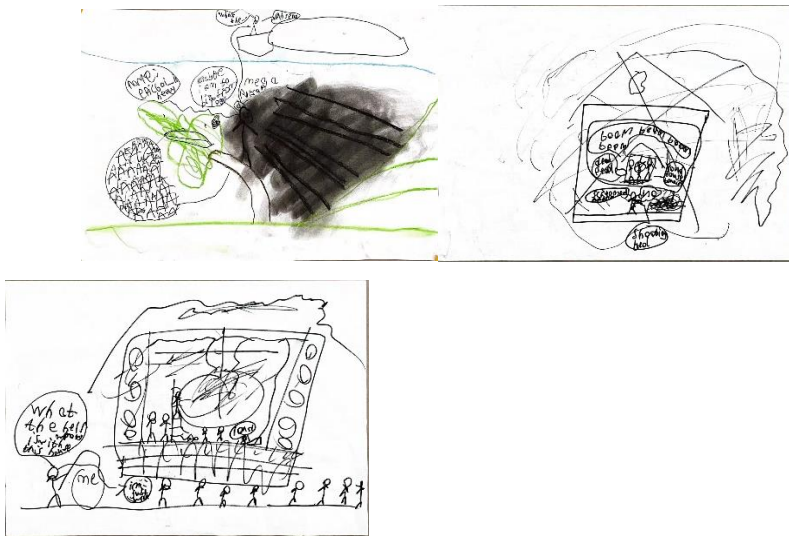
In the twelfth session – scribble play therapy, he confided in me his feelings and I realized that the repressive experience of being bullied at the age of six had some negative impact on H.

In the last session, H drew very concentrated. He thought hard about what he wanted to paint. Compared to his previous resistance and irritability while painting, this time his behavior was greatly improved.

3. Analysis of results

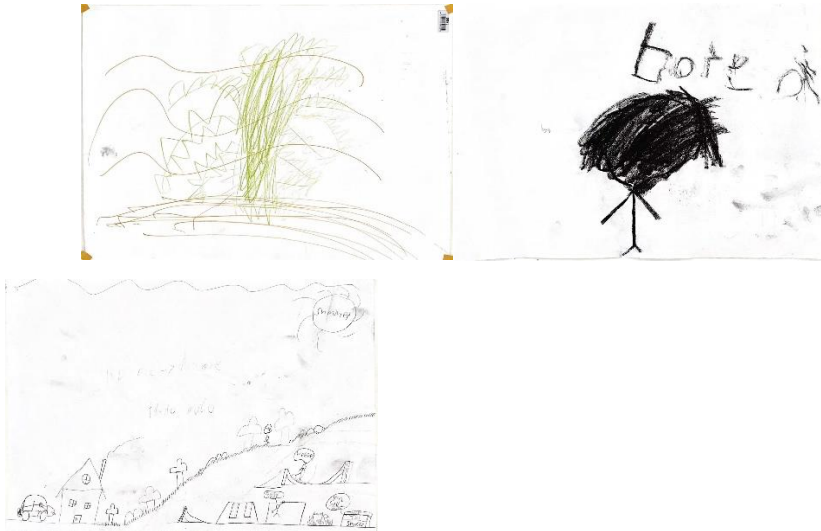After undergoing 13 sessions of art therapy using projective techniques, H experienced significant changes in many aspects. The researcher analyzed changes in H from the projection of drawings and the frequency of aggressive behavior. Changes in two aspects were mainly investigated during the analysis. The first is the drawing of a person and a tree (the tree and the person are the most common content of the drawings), the second aspect is from the point of view of changes in the color and content of the drawings. After extensive analysis, changes in the frequency of aggressive behavior were reflected in a comparison table (mainly observed and recorded by parents) and the results of the children's behavior questionnaire before and after therapy. At the same time, I analyzed and discussed the feedback to him from his teachers before and after therapy.

3.1 Changes in drawing projections

In the process of using the projective techniques and methods of performing art therapy on H's case, I collected a series of drawings that can be used as a reflection of psychological projection to explore internal changes. During the drawing, an expression of children's mental images is noticed. When these images change, so does the form and content presented in the drawings, which means that the children's emotions and knowledge towards certain objects also change or grow.

• Tree drawing changes:

a. The image of a tree drawn by H during the first exercise is a single vertical line, and the trees drawn by H in the eleventh exercise are slanted, indicating that H still has a great psychological barrier in the process of trying to improve.

b. During the warm-up in the 8th therapy session, H drew a big leaning tree and told me it was him. The giant depicted on the tree, the inscriptions next to the tree depicting screams of pain, and H's thought that the tree will not recover show his negative inner feelings. During the last therapy, H drew several lush little trees, which in turn can be taken as an expression of the conflict between his active efforts to show vitality and his repressed negative feelings.

• Changes to the rendering of human figures

With the exception of the self-portrait theme, the characters in H's other drawings resemble stickman figures. Even if I ask H to add more details, he will refuse with the excuse that he can't draw well. It is noticed that H has high demands on himself, but he lacks imagination and courage to try to paint more difficult compositions, which deprives him of the opportunity to understand himself better. The first time H painted a self-portrait, he only depicted his head without the body. Then, with my encouragement, H drew a body twice, which helped him clarify his self-image and heal his symptoms of negative emotions.

• Changes in color selection

During the first few therapy sessions, H chose to draw with a black pencil and was reluctant to change his choice. But during the seventh therapy, H chose bright colors to paint and was satisfied with what he had created. The use of colors ranges from dark to colorful, and the experimentation with other materials is also the result of H's efforts and his constant self-exploration.

• Changes in the content of drawings

In the first few therapy sessions, H's drawings were relatively simple. Subsequently, the content of the drawings became more complete and more detailed. H became more willing to express his thoughts. Mobile phones, tablets, houses and cars appeared more often in H's drawings. H is noted to lack attention from his parents, which has led to an addiction to electronic devices, which in turn has limited his imagination.

3.2 Changes in frequency of aggressive behavior

• According to the self-made aggressive behavior observation table, the researcher conducted a statistical analysis of the change of the frequency of aggressive behavior of the case during the research process and obtained the aggressive behavior change table of the H case.

Observation time	Number of aggressive behaviors at home (observed at a given time)			Total	Average
	Verbal attack	Behavioral attack	Instrumental attack		
01.09-30.09	39	22	8	69	2.3
01.10-31.10	27	15	5	47	1.5
01.11-30.11	17	14	5	36	1.2
01.12-31.12	12	7	1	20	0.6

Number of agressive behaviors at home
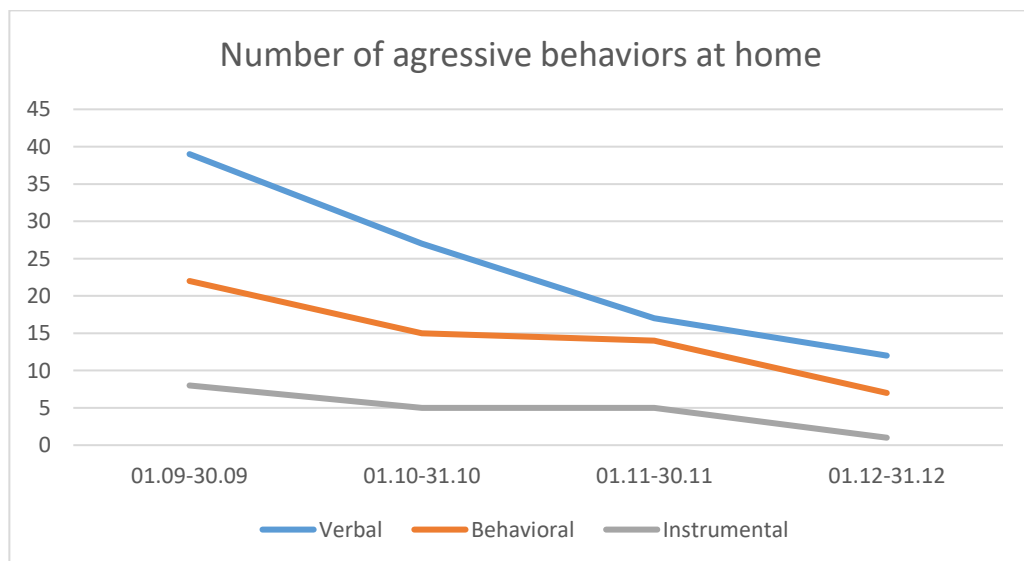
* Verbal aggression includes shouting

• Assessment of aggression in the Children's Behavior Questionnaire before and after the therapies

Therapy stage	Before	After
Evaluation	13	7

On January 11, I conducted an online interview with the teachers of various subjects. Teachers in all subjects expressed their approval of H's progress this term.

a. The experimental science teacher said that compared to the previous semester, this semester's performance was more stable and he was more inclined to follow the rules.

b. The presentation skills teacher said that compared to his demotivation at the beginning of the semester, his presentation is increasingly positive and he is ready to take the lead, more helpful and responsible. If he encounters something that cannot be solved, he always shares with the teacher and lets the teacher help him solve it. The bottle-throwing stuff last semester didn't happen again.

c. The PE teacher reported that his anger problem was almost gone. Compared to the previous semester, there was a big improvement. He is more inclined to talk and share with the teachers. He would also take the initiative to help the teacher use the stopwatch to keep time in the lesson.

• Discussion of the results

The trend of change in H can be seen in the table of change in aggressive behavior and a comparison of aggression scores on the Child Behavior Questionnaire before and after treatment. Before the start of the therapy, H is under observation in the period from 01 to 23 September. According to the interviews with the teachers, parents and the researcher's personal observation, it was found that H's aggressive behavior was very evident and he often shouted, hit people or threw objects at them. His parents observe and record his aggressive behavior every day at specific times (morning, evening and before bed). The frequency of H's aggressive behavior averaged more than 2 times per day. By the last stage, it can be seen that the frequency of H's aggressive behavior has

decreased significantly, with an average of 0.6 times per day.

After the survey, on January 11, through the online Zoom platform, I conducted interviews with H's teachers. The teachers reported that H's aggressive behavior had decreased significantly this semester, the most serious of which was the snowball attack I mentioned above.

From the above, it can be seen that the aggressive behavior of the case of H decreases as the research process progresses. Of course, after the end of the therapy process, there is no guarantee that H will not repeat the aggressive behavior. If time permits, the researcher should conduct a second round of drawing interventions to consolidate the findings.

4. Conclusion

Based on the understanding of the individual's family, school and other general living conditions and his social and cultural background, I carefully observe and explore the creative process and the features that were revealed by the visual content in his drawings, searching for the true psychological meaning that is behind the artistic image. At the same time, the statistics and analysis of the subject's aggressive behavior during the entire research process led to the following two conclusions:

• By using the method of projective technique on the client, it is possible to discover his various fears, anxieties and conflicts, which can further reveal the various deep-rooted reasons that led to his aggressive behavior:

a. Lack of parental company and communication with parents

This is the main and most important reason.

H's parents are usually busy running the restaurant and spend very little time with him. He spends his time with electronic devices and games. Due to the low level of Chinese, H's self-expression is limited and there is not much communication with his parents. Aggressive behavior has become the most common way to express one's negative emotions such as anger and dissatisfaction. During art therapy, H's artwork repeatedly revealed his dissatisfaction with and desire for a lack of parental attention.

b. Frequent conflict between parents, H identification, and imitation of parental behavior

Psychoanalysis asserts that the environment in which a child grows up and the experiences of childhood have a huge impact on an individual's entire life. The birth family has a subtle influence on a person's psychology and behavior, and its mechanism is mostly subconscious and based on habits. The relationship between husband and wife

and setting an example are the primary ways in which the birth family influences children. I learned from H's mother that she and his father often fight over household issues, and when angry, H's father often loses control and is prone to aggression towards objects around him. Frequent aggressive clashes between spouses, conflicts and harsh treatment in life relationships become the object of imitation by children. And by making sense of what is seen, it enters the subconscious and becomes a behavior and habit for dealing with various relationships and events in life. These children, in the process of growing up, when they encounter such incidents, usually use aggressive behavior to to resolve them. During his art therapy session with H, he also mentioned several times about his father's tantrums. H's identification with his father can also be seen in some of H's behaviors.

c. Identity confusion and lack of belonging

There is only one Asian in H's school - him. The difference in his appearance from the others and the jokes of his classmates make the sensitive H associate with his Asian identity and isolate himself and put a barrier between him and the others. When he feels humiliated or has his self-esteem hurt, he takes his anger out on others. H's communication barriers with his parents at home make H confused about his Chinese identity, and his inability to express himself releases his emotions through a series of aggressive behaviors.

d. Impact of violent games

Images such as shooting, killing zombies, guns, guns, etc. appear in many of H's drawings, and H repeatedly mentions words such as "bomb", "kill" and "death". This shows the negative impact on H of the electronic games he usually plays. H's interest is constantly trained by this type of games, so he is easily recognized as a participant and therefore more likely to use violence as a direct and effective way to resolve interpersonal conflicts. In the 1960s, social learning theorists such as Bandura believed that aggressive behavior could be acquired through observation, imitation, reinforcement, etc.

• Projective technique methodology applied to therapy can improve children's aggressive behavior

The researcher applied a projective technique to H's aggressive behavior therapy and he showed developmental changes in terms of projections in his drawing and frequency of aggressive behavior. Drawing is like a child's spiritual world. When it is happy, the content and colors it portrays should also evoke a happy state of mind in the

viewer; if the child experiences negative emotions, what he recreates in his drawings can also carry a negative connotation. Therefore, drawing itself can be taken as an outlet for his emotions, and thus resolve emotional conflicts. Through drawing, H projects and transfers internal torments and conflicts to the outside world and achieves the effect of purification, which causes H to become a stronger individual and restore his positive world order. A change in painting the image of trees, people and houses speaks more and more about a change in his ability to cope with trauma, more effort to contact the environment and more and more vitality. The process of children's drawing is a process of self-exploration. Through drawing, therapists can enter the inner world of children and share experiences with them. Children's drawing conveys the emotions, thoughts and fantasies of children. The very process of drawing and the positive interaction of psychologists with children can provide an opportunity to restore and heal the child's psyche. Initially, H showed no interest in painting, and his narratives about the content of the works were passive and reluctant. His first creations were sloppy and superficial sketches and their content was often chaotic. During the therapy, I found that the brush movements and lines became softer and no longer so chaotic. He tended to reveal his deep anxiety, fear and tension to his inner world and increasingly told me about his thoughts and emotions. In the exercise in which H had to portray himself, he presented himself as happy, showing an air of release and lightness. During drawing activities, children's mental images are naturally implanted on the drawings. As mental images change, so do the form and content represented in drawings, which means that children's emotions, cognition, and behavior change. Children's negative affective cognition is continuously replaced by positive, and problem behavior decreases. The table and graph of change in H's aggressive behavior show such a trend.

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CONTEMPORARY PRACTICES IN FINE ART METHODOLOGY

Scenic and interactive forms in the teaching of fine arts in the Bulgarian secondary school.

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The topic is extremely relevant given the modern times in which we live and the need for change and creativity when teaching art lessons. Innovative projects with more freedom of imagination are suitable for today's children, who are versatile, talented and curious. I analyze stage and interactive forms of art education in general education schools. This is an extensive topic directly related to modern creative methods and their transmission to future generations. My dissertation draws inspiration from my professional experience with children, through which I seek to introduce a field of experimentation with art mediums. I use many different teaching approaches, varying and combining forms of creation and expression: action, landart, environment, happening, performance, as well as interactive tasks and exercises. I document my experience in photos and analysis, one of which I am currently writing: "*The Art of Teaching Art and Contemporary Approaches to Stimulate Creative Activity.*" Teaching methods and incentives that I personally use in my art classes in a general education school: "*Along with the textbooks, for each class, I prepare additional photo and video material in order to enrich the students' knowledge. This method and the supplementary materials, especially when combined with the interactive whiteboard, inspire and motivate students much more than the material available in the textbook.*". "*Having the opportunity for students to explore and search for information on their own, absorbing and examining the visual materials, the inspiration and results depicted in the models / models / works made are unique. And the very fact that they themselves have achieved such success motivates the desire to develop and enrich skills.*".

Examples of activities that I have organized:

Type of activity – visual experiments. On what occasion is it organized – Practical acquisition of knowledge and skills in the subjects of Fine Art and Applied Art. Where is it organized? – In the school.

Type of activity - Outdoor painting. On what occasion is it organized - Expanding artistic knowledge and skills in a natural environment. Where is it organized?- Ecopark,

gardens, school yard, beaches.

Type of activity - Collection of natural materials. On what occasion is it organized - Collection of materials to be used in artistic, fine and applied activities related to the educational process. Where is it organized?- Ecopark, gardens, school yard, beaches.

Type of activity - Visits to galleries and museums. On what occasion is it organized - Acquaintance with works of art, history and their authors. Where is it organized?- In famous galleries and museums.

Type of activity - Drawing to music and visits to musical events. On what occasion is it organized - Expanding the musical and intellectual level of children, a deeper knowledge of this type of art combined with visual techniques. Where is it organized?- In the school, concerts, opera, musical theater, use of multimedia sources and rendering of a piece of music on paper.

Type of activity - Screening of films related to the history of art. On what occasion is it organized - Expanding artistic knowledge through visualization of the educational material. Where is it organized? - At the school.

Use of modern educational technologies

№	Вид технология	Обосновка за прилагането	Получени или очаквани резултати
1.	Интерактивна бяла дъска	Удобно и ефективно средство за разглеждане на снимкови и видео материали, а също така и за виртуални разходки в музеите по света.	Огромен интерес от страна на учениците; възможност за самостоятелно получаване на информация.
2.	Лаптоп	Освен разглеждане на снимкови и видео материали, лаптопите дават възможност за усвояване и обучение с помощта на различни графични програми.	Огромен интерес от страна на учениците; възможност за самостоятелна работа и усвояване на нова информация и умения.
3.	Смартфон	Възможност за проучване и обучение чрез графични приложения; бърз и лесен достъп до снимкови и видео материали.	Огромен интерес от страна на учениците; възможност за самостоятелна работа и усвояване на нова информация и умения.

Responsibilities of the teacher:

– I participate in the conduct of a qualification-methodical activity in Fine Art.
– I support the activities of developing tests, tasks, tasks, materials and criteria for evaluating the knowledge and skills of students in Fine Art. - development and preparation of teaching materials and programs;
– the preparation, design and implementation of projects covering the subjects of fine art and applied art.
– the creation of decorations for the educational institution or school productions related to the various holidays and events;
– organizing visits to famous galleries, museums and music events.
– Mandatory viewing of exhibitions and awareness of events culturally enriching children.

My observations on the collective approach is that it brings them together and builds tolerance for others' opinions. In this way, a combination of drawing skills and ethical awareness is achieved - fine art becomes a moral example of attitude towards others. Classroom lessons have long since exhausted their capabilities. It is necessary to break the stereotype of drawing only between the walls of the educational building. In my practice I include both classes and outdoor performances. Observation, which is an important principle of painting, is most strongly expressed outside, in the environment, where the inspiration and the knowledge of the artist are awakened from all directions. The wealth of colors and their influence, the impact of the environment on momentary emotions and psyche, are factors for a much more exciting teaching and learning of material, skills, ideas - in contrast to simple imitation and memorization of historical facts, eras, artists and established styles. The natural and ongoing context creates a partnership between student and teacher that leads to significantly better results. And their active presentation in competitions and exhibitions directs the children and brings a competitive spirit, which in the field of art is just as important as in other general education subjects. If I can summarize the purpose of my dissertation work, it is to investigate and clarify the influence of stage and interactive methods on the acquisition of knowledge and skills in art education. To achieve this main goal, I have set myself the following tasks/subtopics to analyze in the dissertation:

1. Research, development and implementation of scenic and interactive forms of art education in a general secondary school, suitable for creative expression.

2. Practical study of scenic and interactive forms for developing and provoking the creative potential of students; individual guidance to discover cutting-edge ideas and exposure to current concepts.

3. A practical study of the mentioned forms of training and their ability to improve the concentration and stability of children's attention.

4. Practical use of interactive learning methods in order to create a suitable microclimate for interaction between the presenter and the participants, as well as between the participants themselves.

In the beginning, I discuss the traditional methods of teaching in art classes. I point out their disadvantages in relation to the modern times in which we live, their inconsistency with the needs of today's children and their creative abilities to be effectively stimulated. The actual needs of modern education require the teacher-artists to look for a new, original system both for the expression of the adolescents and for their successful communication with the teacher. In the modern context, it is necessary to re-create the full-fledged interaction between the teacher and the student, to build the essential role of the leader, which is to direct and motivate the thought and creative activity of the still orienting adolescent. The development of the world, the awakening intelligence of the new generations, and the various means of the young to inform themselves, communicate and pursue their interests, requires educators to adapt to the modern need for focus and guidance. The following is a presentation of synthetic forms of work (action, happening and performance) with the characteristic features of each of them. Applying them in art classes convinces me of their necessity - I observe how they provoke interest and desire in students for creative activity. Therefore, through interactive methods, the teacher provides an opportunity to the children, pose relying on their own experience (cognitive, social, aesthetic) to discover new knowledge and skills, to express an attitude towards what they have learned, to show empathy (not only as sharing the expressed feelings, but also the ability to express support). As a teacher at the Summer Academy for Children organized by NAA, I personally saw the impact of these forms. We did several happenings. Collective work and the relationship between teacher and student inspires and strengthens trust in the teacher, which facilitates the learning process. Feedback is established, and the creative results are more than good. For example, I can tell how one of the happenings we organized at the academy went. A group of teachers in various fine arts majors had workshops with developments on the assigned topic. The children had the opportunity to go through each studio, observe and try out techniques, and as a result choose for themselves who they would like to work with. Forms of creative activity included drawing from nature, still life, comic book projects, graphic design, drawing tablet programs, applied arts (ceramics, paper

and waste creations, modeling, body art, etc.). In this way, each child is given the chance to try something new and different, to judge only in which area he is most interested and could show the best of himself. The essence of the happening consists in the course of the action, as well as in the trace left by it - not so much in the objective result. The process during which communication, technique, inspiration is built becomes important; the trace remains in memory, knowledge, ideas for the future. As in super photos!

Another interactive method of learning art is organizing plein airs and projects. Example interactive tasks: "*Observations and impressions in nature*": the whole group observes a given landscape for 10-15 minutes. We try to penetrate beyond the exterior of forms and images, to feel the original impulse of creation and observe if a change occurs in our perceptions. (As an explanation, the presenter may point out that as we look at a plant, we may imagine how it began to develop from a small seed.) "*Drawing with closed eyes*": each of the participants tries to draw something with closed eyes. When he is ready, he opens them and colors the drawing that he presents to the others. Everyone successively shares their impressions of what was drawn, and at the end its author also adds something if he considers it (perhaps what new has developed in him such as attention, skill, feeling). "*Drawing of the movements*": The group is divided into two. Both groups present a general drawing of a type of movement (dance, sport, figurative composition). Maybe one general drawing as each depicts a type of movement of human figures. "*Painting by theme*": (Creative exercises), what I am happy, afraid, justice, dialogues, canvas-paints, pen-paper, voice-ear. "*Creative values*": (brainstorming) This method is used to free up thinking and find the most answers to the questions posed. The students are divided into two groups and have two questions each. First group: How do I want to resemble a certain artist? Second group: What do I not like about this artist? The method creates an opportunity for equal inclusion of all participants in the work. All these methods in combination with the use of multimedia strengthen the interest of modern students in creative activity. Multimedia or in other words visual representation, expands access to information, presentations, virtual classroom, multimedia projects, web pages, contribute to the transfer of knowledge and aspiration to the future of art. Online platforms allow students to continue to share and talk about works of art. In this way, the creativity and engagement of students is encouraged.

The working hypothesis of my research is that if you deliberately create and offer students a subject-developing environment based on the ideas of interactive methods

and stage forms of art education, it will stimulate their cognitive and creative development. There are still many projects and experiments to be done in connection with my work on the PhD topic, but I think I am going in the right direction. My practical studies on and interactive methods so far achieve such quick and successful results with children.

The fire in the eyes of my students during the art classes, give meaning to the efforts made, as well as hope for the next generations excited by art!

Methodical approaches, including photography as part of Fine Art education in secondary general education schools

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In a society where we take and send photos every day, and the smartphone camera has become a tool for visual messages, basic knowledge of photography is increasingly intriguing to young people, and accordingly classes in school education involving photography would provide students with a fun and engaging way to learn about the importance and power of the visual arts in communication. The digital photographic image is now one of the most widespread and easily accessible forms of modern communication, and the photo is present as a means of expression in almost every area of digital communication in social networks and chats. It is this integration into everyday life that contributes to the easy and natural inclusion of photography as part of the pedagogical methods of various disciplines in the educational system, but also emphasizes its potential to be included and studied more tangibly in the content of the Fine Art curriculum in general education school.

Fig.1

Today, photography has its place in secondary education, mostly in schools that are professionally oriented in the artistic disciplines or only in separate educational institutions that have nothing to do with the arts, and where it is accordingly studied as a freely chosen subject. But its importance and frequency of appearance in the visual arts and in our daily lives have long since changed compared to previous decades, and the role of basic skills in photography would contribute to the overall increase of visual culture in society and especially in the digital environment. As part of the visual arts, photography has the power to convey creative pursuits and develop children's imagination and creative thinking through fun and attractive exercises, to help develop individuals who have a visual culture, attitude and sensitivity to the aesthetic photographic image, whether is part of a gallery exhibit or a photo with personal emotional value. Practical tasks with photography are also exciting due to the variety of interdisciplinary activities - in addition to expressing emotions, social position or artistic concept in Fine Art classes, they can also combine knowledge from other general education subjects. Here are some examples of the multidisciplinary nature of photography, in the form of assignments for students:

– Tasks with walks outside the classroom, in the school yard or nearby, outside its territory, but within the time provided for the specific lesson (movement and physical activity). The tasks in this case are related to photographing a variety of objects from the surrounding environment and encourage children to search for the appropriate shot by themselves, thus also stimulating observation and the pursuit of a different point of view. An example of such tasks are shooting a photo business card of the school in several frames; also, tasks for associative thinking such as searching in objects and architectural elements for associations reminiscent of human faces expressing different emotions; another example is discovering and capturing hidden symbols and messages in the school environment. These kinds of activities provide variety to the hours in which it is necessary to sit in one place and require the students to get up from their desks, walk around, observe what is around them and thus find the most suitable point of view for filming.

Fig. 2

– Visiting natural attractions (geography, biology, tourism). Such type of tasks are related to an organized extracurricular activity, as they take more time (one full day or several days) and possibly a trip to another populated place for a scientific purpose or as part of exploring cultural and natural attractions. The task is usually in the form of a photo plein air, with pre-set parameters and guidelines for the photos that the children will have to follow when taking them. After the event itself, the photos are viewed, commented on, sorted and the best shots of each student are selected.

– Visiting and documenting cultural events (music, performing arts). Here the possibilities of event and journalistic photography are considered and studied, as this is an opportunity to visit various events with cultural or social significance and reflecting them in photos, the children simultaneously become part of the event, but also try to convey it through a credible, exciting and an original photo story. Such tasks can be given both for events organized in the school community and in the form of extracurricular activities. Skills are developed for quickly finding the right composition and framing, experience in searching for a suitable point of view, sifting through the meaningfully important moments in the event, the ability to impartially but convincingly express the mood and atmosphere of the event in question.

– Exercises with chemical photosolutions (chemistry). Tasks involving practical classes with photochemical solutions require the most preliminary preparation compared to other photography tasks, because they require obtaining photo paper and at least several different types of solutions. And this is the simplest option, because if possible, the task may also include other photosensitive

materials such as photographic film, transparencies, plates, as well as certain photographic techniques and equipment. Despite these additional conditions, the implementation of the tasks is extremely exciting for the students and reveals to them the "secret" of classic black and white analog photography, shows them how thanks to the interaction of light and various chemical processes, interesting visual effects can be obtained on already captured image. The exercise is also very suitable for training in the field of abstract and expressionist art. Moments of experimental search in trying to achieve the desired image are combined with new knowledge of chemistry.

– Exercises with photographic optics and different types of lighting (applied physics). Tasks involving knowledge about the role of lighting in the creation of fine art can find expression through the basic principles of photography (the word "photography" itself is derived from the Greek words for "light" and "pis") and at the same time confirm the knowledge from the lessons in physics. Experiments with light in the creation of a photographic image have been done by many artists and artists, and playing with light is fun and interesting to such an extent that almost all people have at least once tried it with photographic equipment or with the camera of their smartphones. Tasks may include photographs with directional and/or reflex lighting, reflections, colored light sources, photographs with long exposure times. For example, children can be given the task of making a portrait of a classmate taken in a series of photos from the same point of view and in the same place, but with as many different lighting sources as possible. Another task might be to create a photograph in which the images are made up entirely of reflections or shadows only. And another option, to depict the different emotions, by means of lights shot with a long exposure. Separate lessons can introduce children to the effects and various advantages of using optical magnifiers in photography, and here there is an opportunity to make experiments directly in class. Photographic technique itself requires knowledge based on physical laws and the two disciplines are easily combined.

Fig. 3

– Reproduction of photo images with techniques from the different stages of development of photography (history, physics). Historical stages in photography can be presented not only theoretically in the form of a narrative, but also with a demonstration of the initial methods of obtaining an image, a good example is an experiment with a camera obscura, since its device is simplified and suitable for use in school classes . As for the theory, the variety of artists who used photography as a means of creative expression could be presented in the form of a presentation made by the students themselves, with the support and help of the teacher. Artists from various fields of fine art have performed thanks to photography and the task will introduce children to their work, enrich their general culture and give them ideas for their own projects involving photography.

– Exercises with image processing programs (information technology). Such tasks are already present as part of the program in information technology classes in general education schools and the bridge with photography as a means of creative expression, would be tasks in the direction of developing imagination, creative thinking and emotional intelligence, through the possibilities of digital technologies. The importance of emotional intelligence in an online environment is essential, so most assignments would do well to have this focus. An example of such a task is making a self-portrait in the form

of a collage from the combination of different photos. Also with a photo collage, one can depict the emotions experienced within a day.

The listed activities are only a basis on which the development of a methodology for introducing students to the principles of building quality and meaningful photography, which will be useful to them in online communication and contribute to the increase of the overall general culture in the visual arts, can take place. Hands-on activities with photography bring an additional benefit to the students and the experience itself, the process of shooting. And the experience, accompanied by action on the part of children and accompanied by positive emotions, is one of the most effective educational practices. The opportunity to "stop" the moment, to preserve reality as only they see it, brings children fun, stimulates them to experiment, strive for a creative approach and look for their original point of view in the visual image.

The presented practical exercises are mainly aimed at the high school stage of education, because in this age group (from 14 to 18 years old) all children already have smartphones and can use their cameras to complete the tasks. Another factor is that at this age, students are becoming increasingly active in online communication, excited about the power of the message that photos carry on social networks, and looking for additional information on the techniques and skills needed to deliver these messages. These factors do not negate photography classes for younger students, rather a little more preparation will be required to provide enough equipment for everyone in the class to participate, and to match the photographic techniques presented with the capabilities of the age group. In non-arts high school Fine Art classes, it is often easier and more natural for most students to express their creative artistic ideas with photographic images than with traditional hand-drawing skills, because not everyone has such talent and well-developed fine motor skills, and it is possible that they may experience dissatisfaction with the final result, despite the good idea of their project. In this sense, photographic techniques are a way to emphasize more the meaning in the students' work, to be able to focus more on the concept they are putting in, without the worry of the level of their drawing ability. Of course, such exercises involving pictures as a means of expression are mostly applicable in tasks to the lessons, where more emphasis is placed on the concept and it is permissible to provide a choice in techniques.

Teaching photography in Fine Art classes can also be considered in terms of whether the classes are face-to-face or online. In a digital environment, teachers often

have the practice of giving a task that students complete according to the given guidelines and recommendations, then take a picture of their creation and send it to the teacher. Here, the skills in photography allow the student to present his work in the best way, so as not to allow a poor quality photo to take away from the advantages of the work, and on the contrary - to be able to see all its positive sides. All the essential skills for properly photographing a work of art can be taught to students within a single lesson thato to precede the others so that from the very beginning they have the knowledge to take representative pictures. These skills are also extremely applicable when capturing plastic three-dimensional forms, where lighting and perspective can alter our entire perception of the actual work. Training in this area would also be useful in portfolio preparation and especially for art school kids.

Education in an online environment has some specifics that require matching the methods and tasks in Fine Art, respectively, in the classes with photography. It is necessary to pay more attention to children's concentration and tasks to encourage positive communication between them, as well as to stimulate students to express their emotions and feelings in their works. Digital emotional intelligence can be developed through photo projects that are worked on in groups or in pairs. For example, the task might be to divide the class into four groups, with each group depicting one of the main emotions in abstract expressionist pictures, and the task of the others being to guess which emotion it is. Here, interactive teaching methods also fit online without a problem.

With regard to face-to-face learning and photography classes, some such examples in interdisciplinary activities have already been mentioned. However, there is also a technique that is like an intersection between classical fine arts and photography. It is called cyanotype and combines brush work on watercolor paper, but instead of paints, photosensitive solutions are used and light exposure is required. Cyanotype is an easy and affordable way to achieve spectacular results in the spirit of classic analog photography and is more suitable for the high school stage of education. The elements of spontaneity in the process of making the image bring a positive emotional charge to the children and encourage them to experiment, and the time for completing the task is short and fits into the school curriculum without any problem.

SCIENCE, ART AND TECHNOLOGY

Implementation of contemporary digital 3D technologies in the process of generating an artistic prototype with the purpose of realizing it in a monumental sculpture.

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Abstract:

The sculpture is a genre of art that inhabits the three-dimensional material space, communicates and reacts with it and bases its development, motivating its modern language and media with the level of development and achievements in technology of its era. Since the beginning of the second decade of the XXI century, radical changes in the techniques and technologies in sculpture have been underway. From design to realization in the monumental sculpture, we can find the markers of contemporary digital technologies, which are still combined with traditional ones, due to the specificity of the matter. The virtual dimension of digital modeling software in which the sculptor works today is, on the one hand, a personal space for aesthetic, form-making, and conceptual experimentation, and on the other hand, it reveals the concreteness of the object, through its precise positioning in an architectural environment.

This scientific article examines the specific characteristics of the implementation of contemporary digital 3D technologies with the purpose to generate an artistic prototype, it's positioning in a site-specific environment, as well as the current processes and interrelationships between traditional and modern means in the crafting of a monumental sculpture produced in a factory, studio, atelier or other corresponding industry. The research aims to argue for the advantages and present the endless possibilities, updates, and tools of technologies such as 3D modeling and rendering, 3D scanning, 3D printing, and 3D CNC router, that offers the sculpture a rich contemporary language of art expression. In addition, through examples, the analysis in this research will also focus on the psychical adjustment and adaptation of the analog type of sculptor, to the new realities in art – the digital three-dimensional space.

At the very beginning, before the current analysis has been developed, the author considers it necessary to specify the following: since the topic has not been studied so far in the Bulgarian scientific community as a separate problem, a large part of the sources, as well as the scientific developments used for the elaboration and as a proof of the theses in this text are written in English and other foreign languages - the translation of the cited texts is made by the author.

We can consider the problem in many directions, but let's limit them to the focus of six important points that will develop, summarize and prove the main thesis of the study. In short, in the *first subparagraph* we will present, define and distinguish the two spaces in which the contemporary sculptor works - the analog physical space and

that of digital reality. In the ***second subparagraph*** , the most important psycho-physical perceptions and sensory sensations in the work of the sculptor between the real and digital space will be examined and compared. In the ***third subparagraph***, the focus will be on presenting and analyzing some of the digital modeling methods characteristic of the contemporary sculptor. It will also be argued that the digital modeling and processing of sculptural objects not only complements, but also develops contemporary sculpture as a type of media and as a successful connecting element between the real and the virtual. The physical and real tools of 3D technologies will be examined in the different spheres - 3D scanning; 3D printing; 3D CNC - in the ***fourth subparagraph***. In view of the ***fifth subparagraph***, the possibilities that rendering softwares support constructive and creative processes in the design and presentation of a sculpture will be presented and analyzed. In the last - ***sixth subparagraph***, we will summarize three main positions of application of modern 3D technologies in the practice of the modern sculptor. It should be clearly emphasized that the content of the article could not cover the entire spectrum of 3D technologies, as well as their interrelationships with each other and with traditional techniques in sculpture. The reason is in the main signs of 3D technologies - especially in the second decade of the 21st century - developing at a huge speed, which makes it difficult to make their final sense as a medium in sculpture and art in general. But it is fair to say that, despite the difficulties of definition, it is clear that each technology and technique was created because there was an idea to excite the scientific-creative imagination, which, through the generation of a new tool and medium, gives a futuristic solution in a specific creative problem. Examples are given in the article, which cover a large spectrum of possible combinations between 3D technology and sculpture, but nevertheless they could not exhaust the volume of the topic.

Preface.

Today, rapidly entering the third decade of the XXI century, digital reality is not a term that is so distant from the person - or as it is appropriate in terms of market terminologies - the end user. On the contrary - today almost every person is digitized through workstations or portable mobile devices and uses various practical functions of their capacities in their daily life. Now that digital devices and their software are so widely distributed, we can ask ourselves: can sculptors actually take advantage of these readily available resources? Until 2010, mostly well-known and established authors could touch and experiment freely with these technologies – of course, with the help of

the companies that produce and develop the software and hardware. *In 2008, software company Autodesk reached and jumped another chasm to promote the fusion of digital technology and fine art by creating the Digital Stone exhibition. They invited four artists – Bruce Beasley, John Isherud, Robert Michael Smith and Kenneth Snelson – to create a digital design in a virtual space. Autodesk then helped the artists bring their creations to life in the real world by 3D printing them. Finally, the series of works were enlarged in scale and reproduced by the Dingli Stone Carving Company in Fujian Province. Dingli Stone Carving uses traditional stone carving methods to reproduce the exquisite works of art created through digital processes.[58]*

The modern artist does not need to own or be part of a large monumental sculpture factory to acquire professional 3D modeling and sculpting software. Or to scan objects through the technique of photogrammetry with his camera, as well as on hardware – a 3D printer for making a sculpture or an object in measurable dimensions. We cannot fail to note that at the basis of their development, all 3D technologies were created to serve the functions primarily of large-scale architectural and engineering projects, industrial design, industrial production etc.

1. The space of the contemporary sculptor – between analog and digital reality.

"Sculpture as an art form has been developed through the unique combination of art and technology. Sculpture is a constructive art and depends on the technological knowledge of each era."[59]

By "analog reality" we mean the following: the space in which traditional sculpture and the corresponding sculptural technologies and techniques developed from antiquity, through the Renaissance to Neoclassicism, as well as Modern Sculpture from the beginning of the 20th century, with some exceptions from the later stage of modern art. Analog sculpture exists where the sculptor works with materials processed in the real physical dimension, where he and the sculpture exist together, and where everything material exists. We can consider digital reality in the realm of sculpture as a natural extension and development of traditional analog sculpture, as its offshoot, through

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[58] MONGEON, Bridgette, 2016, 3D TECHNOLOGY IN FINE ART AND CRAFT, p 47. New York : Focal Press 2016, ISBN: 9781138844339

[59] G.-Fivos Sargentis 1,* , Evangelia Frangedaki 2 , Michalis Chiotinis 1, Demetris Koutsoyiannis 1 , Stephanos Camarinopoulos 3, Alexios Camarinopoulos 3 and Nikos D. Lagaros 4, 3D Scanning/Printing: A Technological Stride in Sculpture, Technologies **2022**, 10, 9. [online], [viewed 10 april 2023]. Available from: https://doi.org/10.3390/technologies10010009

which sculpture has evolved into today's era.

"I think now is actually an interesting point in time because in a sense, what photography was to painting in the mid-nineteenth century, computers are to sculpture today. It took about one hundred and fifty years to find an equivalent to photography – an automatic form – making technology that facilitated the creation of three-dimensional form."[60] In the face of individual artists, fine art is used by novelties, so does sculpture, as an art that has always motivated its existence in the direction of the development of modern technologies. In recent years, 3D technologies have been successfully combined with traditional sculptural crafts and technologies such as: stonework, wood carving, bronze casting and metalwork, ceramics, etc. This coexistence between the two worlds created common and mutually beneficial artistic processes that marked a new period for contemporary sculpture. *Artists are creating some very interesting works using these processes, and have been doing so for many years. In some cases, the works being created would, until recently, never have existed without these technologies maturing and becoming available*[61]. 3D technologies in modern sculpture are used by a number of authors as a tool that can be chosen in its pure form or in a combination between modern and conservative technologies. Over the past few decades, 3D technologies have been involved and present in the development of the monumental work of mainstream sculptors of modern and contemporary sculpture such as: *Tony Cragg* **(see Fig. 1 and 2)**, *Anish Kapoor, David Curt Morris, Jaume Plensa, Richard Serra, Bruce Beasley, Kenneth Snelson et al*. Works by the mentioned authors are an example of how, by means of new technologies, sculptures can be created in scales and extremely complex forms, volumes and surfaces, which cross the threshold of the possibilities of physics and introduce sculpture into a new modern era. It is important to understand all the inherent prejudices with which 3D technologies provoke sculptors of all generations. These are irreversible evolutionary processes in art, and as sculptor Bruce Beasley **(see Fig. 3 and 4)** notes in his reflections on computer modeling technology: "*You could say that 3D technology has become the artist's hand; it does not replace the artistic touch, it does not make it old-fashioned, but it can certainly enhance it. Technology never removes the presence of the artist. Any machine, any technology –*

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[60] Berk. Anne. Shape Shifter, the computer in the oeuvre of Tony Cragg. 2012. [viewed 28 December 2022]. Available from: https://anneberk.nl/articles-english/tony-cragg/. Tony Cragg interviewed by Jon Wood 2007. [viewed 28 December 2022]. Available from: http://www.tony-cragg.com/texte/

[61] MONGEON, Bridgette, 2016, 3D TECHNOLOGY IN FINE ART AND CRAFT, p XII. New York : Focal Press 2016, ISBN: 9781138844339

be it a music synthesizer, a paintbrush, a 3D printer or VR (see Fig. 5 and 6) – when used with an artist's formal sensibility and ability to awaken us emotionally, results in extremely fine fine art."[62] *There are many opportunities to travel to the virtual world and return to the physical; there are also many opportunities to use, interpenetrate and assist the tools in returning to the process of creation.*[63] Today, a sculptor does not need to be a mathematician, a computer engineer or know the essence of the Cartesian coordinate system. The geometry system of three axes, or X, Y, and Z, that all 3D modeling and 3D sculpting programs work with by default.

When we relate the two realities: analog and digital, they have very similar features, because digital originates as principles from analog, but develops and combines them in such a way that for real-modeling – in the physical studio – these processes are unattainable or physically impossible on the given stage of the work process. "*When working on a monumental sculpture in a traditional studio, sometimes it's impossible to stand back enough to see the whole sculpture. It's hard to imagine the observer's perspective or what it would look like mounted on a large pedestal. Navigation in the digital studio helps the artist to view and all these things.*"[64] The digital space solves many problems that are physical in nature, such as the unrestricted navigation around and inside the sculpture. This is one of the main advantages, because such comprehensive perception in real space is practically impossible. *Many sculptors are finding that as the materials, processes and tools of technology become more readily available, they can move back and forth between digital and traditional until they achieve the end results they are looking for.*[65]

2. The psycho-physical differences in perceptions between the two worlds of traditional and digital sculpture can be broadly divided into the following sensory sensations: navigation (sight); touch (tactile sensitivity); smell (olfaction).

Navigation: Generally, this is a term that refers to the visual orientation of the sculptor in the space around and within his work. Navigation through the visual apparatus is an essential attribute for understanding and perceiving both formally and aesthetically the form, volume and dimensions of the sculpture. In digital modeling, we

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[62] BEASLEY. Bruce. On technology. Computer modeling. [viewed 03 January 2023; 17.00 EST]. Available from: https://brucebeasley.com/artist/technology/

[63] MONGEON, Bridgette, 2016, 3D TECHNOLOGY IN FINE ART AND CRAFT, p 36. New York : Focal Press 2016, ISBN: 9781138844339

[64] ibid, p.43

[65] MONGEON, Bridgette, 2016, 3D TECHNOLOGY IN FINE ART AND CRAFT, P. 124. New York : Focal Press 2016, ISBN: 9781138844339

can select individual areas of the sculpture and disable others to process the selections without disturbing the integrity of other parts. We can infinitely rotate, translate and copy all components together or separately from the sculpture. Separately, through the navigation we can choose the exact angle to work with – an angle that in real modeling we could not achieve due to one or another physical obstacle or limitation. The first thing that stops a traditional sculptor from realizing the advantages of digital sculpting over traditional sculpting is the psychological distance between the work and him in the digital space. Physical orientation, optical distance, colors and shadows – these are also objects of mental perception that must be understood and tamed so that the one in front of the 3D software feels that he is perceiving the correct reality while working and orbits virtually. **Touch:** *In traditional clay modeling, the sense of touch involves many different things: temperature, pressure, vibration and even the tension of your skin. For traditional artists working in a digital world, the lack of tactile stimulation of the digital process can be a hindrance. Any experienced traditional sculptor who works with clay knows the results of placing your fingers on the sculpture or the thickness of your thumb pressed down to make a hole or shape. These appendages are their most important tools[66]. Digital processes removes the tactile sensations from sculpting. Artists can experience tactile sensations through some software combined with specific hardware. Hardware as a graphics tablet is the first exploration for most artists working in a digital environment[67].* However, to have a full digital modeling experience, a sculptor must forget about their tactile disconnection from the material while working in their 3D sculpting software with a tablet or other device. The truth is that the connection is more intellectual than physical in digital modeling, but that can be an advantage in certain works. **Smell:** *Even art can have a smell. Some of these smells may be specific to each artist. The smell in a carpenter's workshop or an oil painter's studio cannot be mistaken[68].* To be able to design any sculpture digitally, the sculptor must have previous experience with real analog materials, especially if the end goal is to render it in material. This is mandatory for a number of reasons, but if smell is important, it is primarily because of the subjective and psychological perception of the creator when working with a particular material. It is difficult to prove whether the smell of different

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[66]MONGEON, Bridgette, 2016, 3D TECHNOLOGY IN FINE ART AND CRAFT, p.40 New York : Focal Press 2016, ISBN: 9781138844339

[67]Ibid, p.41

[68]Ibid, p.40

materials causes different impressions in the author of the work, whether it can change or determine its formation. But we can say with certainty that this sense is important for the mental perception of form, even in the initial phase of concept design.

3. Sculptural prototype – 3D modeling and 3D sculpting

Like any tool, 3D technology takes time to master. It takes time to become a continuation of the artist's creative process.[69]

In the development of modeling software, we can distinguish two dependencies: *technical* form generation and *organic* form generation. Technical form generation can be defined as **3D modeling (see Fig. 7)** *by which the sculptor produces the vertices of an object using a polygonal mesh. In other words, modeling a 3D object is done on any surface with manipulation of polygons, edges, faces and vertices.*[70] *Modeling is focused on adding, moving, and otherwise modifying lines and angles.*[71] *Basically, the 3D model is formed from points and vertices that define the structure and form the polygons. A polygon is a geometric surface formed by at least three vertices (a triangle). A four-sided polygon is called a quadrilateral, and a polygon with more than four sides is called a p-gon. Modeling describes the process of forming some shape from an object.*[72] Through this technical approach, the sculptor can achieve exceptional geometric precision and complexity of the volumes and shapes he models **(see Fig. 8)**. 3D modeling programs work great with 3D printers and 3D CNC mills because of the precision and accuracy of the 3D object geometry. For these reasons, 3D modeling software, such as: *Rhinoceros 3D, 3ds Max, Maya, Blender, Cinema 4D, SketchUp, Solidworks*, etc., are used in the modeling of sculptures or design objects that primarily seek technical and geometric accuracy in the formation.

While 3D sculpting **(see Fig. 9)** *is often described as a more organic process, like traditional sculpting where one pulls and pushes virtual clay. With 3D sculpting programs, the polygonal modeling and geometry behind the art are not a priority issue; instead, the artist makes the shape they want.*[73] 3D sculpting programs are designed to

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[69] MONGEON, Bridgette, 2016, 3D TECHNOLOGY IN FINE ART AND CRAFT, p.40 New York : Focal Press 2016, ISBN: 9781138844339

[70] Miyatovich.Katja.Modeling Vs Sculpting The Ultimate Comparison (2022). [viewed 05 January 2023; 17.00 EST]. Available from: https://themotiontree.com/modeling-vs-sculpting/#What_Is_3D_Modeling

[71] 3D modeling. What is 3D sculpting and where can you use it?(2021) [viewed 10 January 2023; 17.00 EST]. Available from: https://3d-ace.com/blog/what-is-3d-sculpting-and-where-can-you-use-it/

[72] 3D компютърна графика. (2022, January 28). In Wikipedia. https://bg.wikipedia.org/wiki/3D_%D0%BA%D0%BE%D0%BC%D0%BF%D1%8E%D1%82%D1%8A%D1%80%D0%BD%D0%B0_%D0%B3%D1%80%D0%B0%D1%84%D0%B8%D0%BA%D0%B0

[73] MONGEON, Bridgette, 2016, 3D TECHNOLOGY IN FINE ART AND CRAFT, p.18 New York : Focal Press 2016, ISBN: 9781138844339

at least initially separate the sculptor from the technical parameters of geometry and let him sketch, model and conceptualize form in the virtual environment. In fact, geometry is also very important in 3D sculpting, but it is not as pronounced as a technical issue. On the other hand, the author's intuition works freely **(see Fig. 10)**. All operations are simplified and reduced to organic digital modeling, as it would be in the real world, on the easel with a piece of clay or plasticine, having a huge set of tools and the ability to generate new ones in the program itself. In order for sculpting to be a freely controlled process, usually instead of a mouse, the sculptor uses a tablet to draw with a pen. So modeling resembles drawing, but in this case the tablet pen has degrees of pressure that affect the digital reproduction of the clay pressure in the program. Once mastering this technique with the appropriate tools, the sculptor forgets about the boundaries that are placed between the virtual and real dimensions and focuses on the work of the sculpture itself **(see Fig. 11)**. Some of the main 3D sculpting softwares are: *Zbrush, Autodesk Mudbox, 3D-COAT, Sculptris, etc.*

Although 3D modeling is the predecessor of 3D sculpting, we cannot speak of a hierarchy among them. The choice of technique and corresponding software depends on the idea, process and taste of each individual author. It is also important what other processes – production and post-production – the generated virtual sculpture will undergo. In many cases, authors combine both modes because it enriches the realization of their ultimate goal.

4. The physical tools of 3D technologies: 3D scanning; 3D printing; 3D CNC – Router/Robot

As in the thousand-year tradition of classical sculpture in the construction of sculptural form, so today, in 3D technologies, we have two main principles of modeling: a process of subtraction and a process of layering or accumulation. 3D printing technology generally represents the process of layering or accumulation (Additive techniques) of volume from core to array, while 3D CNC routers accordingly recreate the process of subtraction (Subtractive techniques) from array to core or from the general to the private. The 3D technology of 3D scanning of objects with a professional scanner, or with the more affordable technology of photogrammetry, is a technology that many sculptors use to change the scale of the objects they are working on. This technology evolves and greatly simplifies the classic approach of making your models to different scales and the need to make a 1:1 scale model by hand for a monumental sculpture. After scanning and processing a small model or sketch, the sculpture in actual

size is made by some of the two basic methods (subtraction or accumulation) depending on the requirements of the author and the work by a 3D printer or a 3D CNC router or milling machine.

3D Scanning (see Fig. 12). *3D scanning is a technology for creating accurate and precise digital 3D models of objects from the physical world. With this technology, the shape and geometry of an object is captured using a 3D scanner. The result is a 3D file that can be saved, modeled and edited and even 3D printed.*[74] In the technology of 3D scanning, we can distinguish the following processes*: photogrammetry; structured light scanning; laser scanning and computed tomography.*[75]

3D printing (see Fig. 13). *Three-dimensional printing or 3D printing is a modern technology for printing (making) a three-dimensional solid object of arbitrary shape using a digital model. It is realized as an additive process by applying successive layers of the material, so as to form the desired object.*[76] The term "additive" derives from the structure of the process because it means "adding" material, not "subtracting" from a certain mass as in a CNC mill/router. We can distinguish some of the main technologies in the 3D printing process: *Fused Deposition Modeling FDM (Fused Deposition Modelling); Stereolithography SLA (Stereolithography); Selective laser sintering SLS (Selective Laser Sintering); Photopolymerization.; Selective Laser Melting (SLM) etc.*

3D CNC – router-mill/robot (see Fig. 14). *The term subtractive characterizes these methods of reproduction based on the idea of producing a replica, by sculpting a block of material, usually with a computer-controlled milling tool (CNC machines). The main advantage is the wide range of reproduction materials available. Milling machines can work on almost any type of material, such as wood, stone and metal*[77]. By CNC machines we mean: **3D CNC milling machine, 3D CNC router**, and **6** or **7-axis CNC robots**, which are the main machines used for making monumental sculpture.

5. The sculpture integrated in a 3D environment – 3D rendering.

Using 3D modeling or sculpting software, the sculptor needs to value the 3D project as a 3D object with color, material, or texture (see Fig. 15 and 16). By adding

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[74] PEHLIVANOV. Boyan. За какво да използваме 3D сканиране? Примери от индустрията (2022). [видяно на 10 Януари 2023; 17.00 EST]. Достъпно от: https://b2n.bg/za-kakvo-da-izpolzvame-3d-skanirane-primeri-ot-industriyata/

[75] Daneshmand, M.; Helmi, A.M.; Avots, E.; Noroozi, F.; Alisinanoglu, F.; Arslan, H.S.; Gorbova, J.; Haamer, R.E.; Ozcinar, C.; Anbarjafari, G. 3D Scanning: A Comprehensive Survey. arXiv 2018, arXiv:1801.08863.

[76] Триизмерен печат. (2023, January 11). In Wikipedia. https://bg.wikipedia.org/wiki/%D0%A2%D1%80%D0%B8%D0%B8%D0%B7%D0%BC%D0%B5%D1%80%D0%B5%D0%BD_%D0%BF%D0%B5%D1%87%D0%B0%D1%82

[77] R. Scopigno, P. Cignoni, N. Pietroni, M. Callieri & M. Dellepiane / Digital Fabrication Techniques for Cultural Heritage: A Survey, P. 2, COMPUTER GRAPHICS Forum (11/2015), Volume xx (200y), Number z, pp. 1–17

these values, the sculpture acquires a certain character, the shape changes its meaning even with the slightest difference in the tone of the main color. Usually, the modeled form is pre-adjusted to the characteristics of the material in which it will be accomplished. If we use virtual modeling to make a model to serve us in the realization of a work of stone, we will approach in a certain way when we model in the 3D program. We will consider the characteristics of the final material for the sculpture and whether it will be realized entirely by the author's hand or with the help of a 3D CNC machine. Creating a project for a monumental sculpture, the author takes into account the idea, shape, design, dimensions, texture and colors of the work, considering the architectural situation and plan, as well as the historical conditions of the location where it will be located. Rendering software facilitates a number of constructive processes in the design of a sculpture: choosing the appropriate material, texture and final look of the sculpture; siting and scaling in an architectural and urban environment; final presentation of a finished project to a jury, expert committee or investor. Nowadays, it is accepted that the presentation and participation of sculptural projects for public sculpture in monumental sizes in professional competitions is done through 3D visualizations. It is not a replacement of traditional approaches, as conservative creators define it, but an evolutionary process that borrows the experience of tradition, but also adds new media that develop the creative language. Such media are 3D technologies in general.

6. Positions of application of modern 3D technologies.

A clear creative idea is an essential component for the proper integration of a given technology into art. Achievement is one of the most difficult things, because it is usually the result of a long life and creative process. But when it is present, the right technology is also found for deepening, researching and realizing the sculpture. Modern methods have been adopted and applied by authors familiar with them and their development over the last 30-40 years. They are joined by artists who previously only worked with traditional techniques. Given the above, we can distinguish three degrees of application of 3D technologies:

Fully used. In general, this is how authors work, who have chosen their creative processes to pass and fully integrate with the new 3D technologies. When 3D technologies in the broadest sense – from conceptual design to final sculpture development is generated through the tools and operations in 3D modeling or 3D sculpting software. Presentation of a project and final vision of the sculpture, if it participates in a competition and is judged – by means of 3D Rendering software.

Coming to the last phase of a sculpture project – namely its realization. In this case, we are referring to the whole set of additive or subtractive technologies mentioned above (3D printing, 3D CNC milling, robot). It is relevant to mention that despite the use of all these technologies, the epidermal layer of the sculpture made must inevitably be finished by human hands.

Almost fully used – these are the most extensive group of authors who bring with their ideas all possible combinations between traditional and digital technologies. Many authors use the full arsenal of digital and traditional technologies available for their work, which means in fact a constant transfer between digital and real. This is very important to be able to adjust the sculptor's perceptions to the work, and eventually to lose the difference between the two worlds. This subjectivization of the work process is one of the phenomena of today's time. The availability of new technologies helps this new perception of sculpture with added virtual value to the real.

Partially used – the capabilities of 3D technologies are most often used to enlarge/transfer the size and scale of the sculpture: first through a 3D scanner and subsequently the fabrication by a 3D printer or a 3D CNC router. For this purpose, the sculptor does not enter and integrate the technologies of 3D modeling or sculpting in the formative processes of the work he makes. Here the technologies are used statically, simply to transfer the information that is scanned in a different scale and material. At this stage, it is more common to see modern 3D technologies being used for the purpose of realizing a monumental or easel sculpture, as a transitional link in the chain of processes until the finished form is reached.

In fact, the realization of any sculptural project using 3D printing technology would be impossible without the spatial imagination and professional artistic quality of the sculptor. Being a tool, technology must be combined with art, because when it falls into the hands of the artist, this technology undoubtedly can and does play its most important role - that of serving the whims of art.[78] In the last 20 years, 3D modeling, sculpting and reproduction technologies have developed, without which the appearance of public monumental sculpture would not be the same. This applies not only to the size and scale of the works, but also to their technological advantages and superior form-forming elements over those of the works of the last century. Virtually created sculptural

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[78] Beijing Wonders Technology Co., Ltd., Application of 3D printing technology in sculpture industry.) [viewed 2 January 2023; 17.00 EST]. Available from: https://m.wondecors.com/info/application-of-3d-printing-technology-in-sculp-60152935.html

prototype carries the original idea of the author and can be created with a characteristic handwriting, because today it is possible to come up with a unique approach to work, even in software where seemingly limitations exist. We must not forget the most important thing about this type of media – that 3D modeling or 3D sculpting software is only a medium to aid creative expression in sculpture and art, not a substitute or antagonist of traditional modeling.

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Fig. 1

Fig. 2
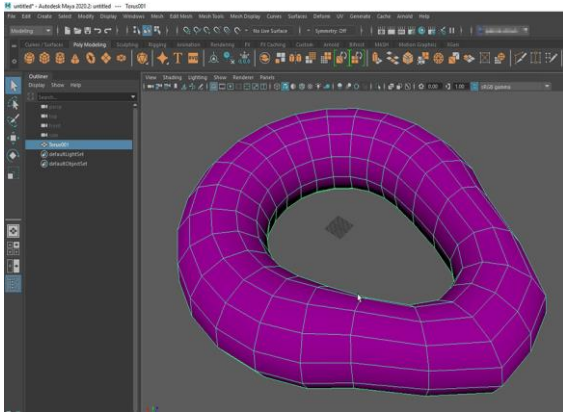

Fig. 3

Fig. 4

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Fig. 6

Fig. 7

Fig. 8

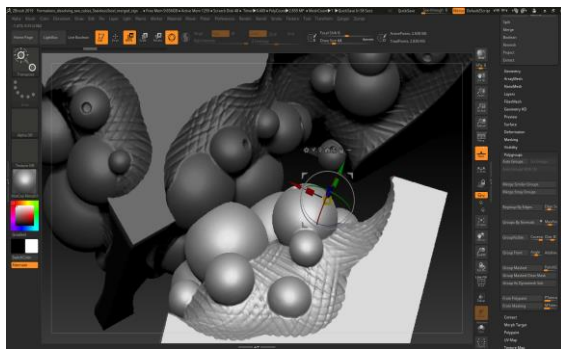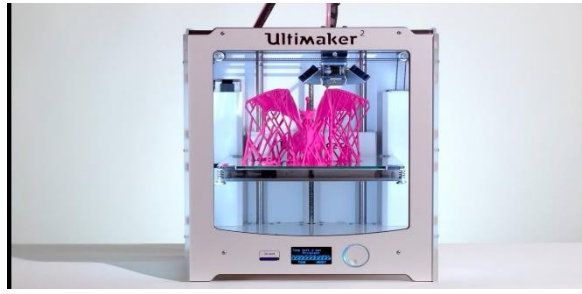

Fig. 9

Fig. 10
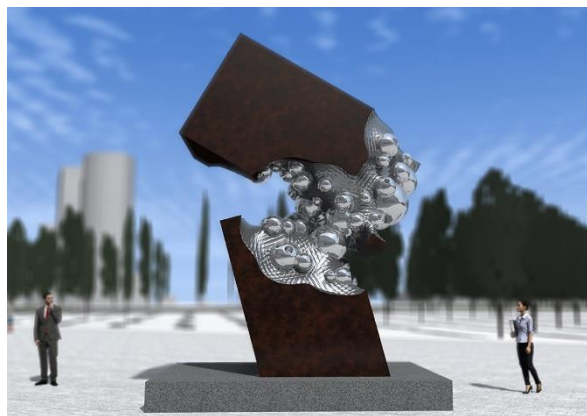

Fig. 11

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Fig. 16

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