THE CONCEPT OF KAVERLJAG WORKSHOPS AND THEIR IMPACT ON SOCIETY

Aleš Sedmak

Keywords

artistic-ecological-educational project, visual communication, natural and scientific illustration, interdisciplinarity, multiculturalism, design, socially responsible design.

Abstract

The Kaverljag Workshops have been held continuously since 1998 in the tiny village of Kaverljag, located above Koper near Grintovec and Šmarje. The international summer workshops are intended for students of European academies and focus on current issues, especially ecology, the utility of products, and the integration and synergy of fine arts and various scientific disciplines. With the help of scientific illustration and visual communication, one of the most pervasive media of our time, students search for their own practical solutions in a creative workshop environment, resulting in tangible products. In 2009, we decided to work with partners to find solutions on how to present biological organisms to blind and partially sighted people, so that they can learn about at least part of their surroundings by using the sense of touch. We have published two books *Dotakni se ptice* (Touch a Bird, 2009) and *Žuželke od blizu* (Insects Up Close, 2012), and developed art and typeface foundations for creating materials for blind and partially sighted people. The project brought together biologists, communicologists, designers, and illustrators and blind and partially sighted people, in order to create aids that will help blind and partially sighted people learn about the natural environment, and in particular the organisms living in it. The programme was planned, developed, and implemented in close cooperation with the Academy of Fine Arts and Design of the University of Ljubljana *(hereinafter "UL AFAD")*. In 2024, we are continuing our work, as we want to expand the range of content accessible to blind and partially sighted people with illustrations of marine organisms. This time we are expanding content beyond the medium of books and we want to use new technologies to increase the usefulness and accessibility of information about marine organisms.

THE ROLE OF VISUAL COMMUNICATIONS

As early as 1542, in the editorial in his famous book on herbs, Leonhart Fuchs wrote that "pictures, illustrations, can convey information far more clearly than the most eloquent man can with words" (Lee, 1999, 6). Today, with the world swarming with numerous communication forms and techniques, the image is once again becoming an important means of messaging and communication.

One can quickly see that an aggressive language of visual communication is dominating. I agree with the general observation that we live in a culture dominated by images, visual simulations, illusions, copies, reproductions, imitations, and fantasies; in short, we live in an age of visual communication. Consequently, there is more and more visual data created every day, and thus a growing need to manage it. There are increasing warnings that "our culture is increasingly becoming the product of what we are looking at, not what we are reading" (Mitchell, 2009, 19).

Anyone can be captivated by an image; illustration is powerful and great for conveying a variety of information, including of a scientific nature, especially in the field of environmental awareness. The role of scientific illustration is therefore very important in promoting environmental awareness and education, and it has a very direct impact on environmental issues. A well-done illustration in a popular science text not only provides accurate information, but does this in a friendly way, thereby making studying interesting and enjoyable, rather than a chore.

Already in the 4th century BC, Aristotle discussed in his *Poetics* why imitation is pleasing to man, why we enjoy looking at perfect images of an object. He attributes this pleasure to the human joy of learning, because, in his view, people enjoy looking at images because they teach us so much and because they tell us the meaning of something. Aristotle also finds pleasure in identification.[1]

Scientific illustration is neither art nor science, it is both. Inevitably, the two must be interrelated, both in content and form, if

1 The thought is taken from Ernst Gombrich.

the information is to be scientifically objective. In addition to artistic skills, an illustrator of scientific illustrations must also have a command of the scientific language. They must communicate with the scientist and understand what he or she is asking of them in order to know what to communicate with their illustrations.[2]

By using a variety of methods, (scientific) illustration often allows the reader to "see" information that is normally not visible. Scientific illustration must often meet two requirements: to be accurate and present information clearly. It would be more appropriate to say that such illustrations are useful in helping the reader "see" information within the context of a particular theory or scientific truth. It should be built on a solid foundation of scientific knowledge, knowledge of artistic techniques, and clear visual communication. Or to quote Žarko Vrezec: "In observing and drawing a piece of the animal kingdom, I was particularly fascinated by the fact that nothing in nature is an end in itself, nothing is there for beauty's sake alone. All the colourful morphological markings on the wings of butterflies, all the dazzling structures on the shells of beetles, all the ornaments on the wings of birds – they all have an important function in the various strategies of self-preservation, reproduction and feeding in the inexorable, cruel struggle for survival. In short, all the artistic sensations, all the spectacular patterns available when drawing a piece of nature, are strictly functional, nothing is unnecessary…" (Vrezec, 2010, n.p.).

Another field that perhaps encroaches on space and nature even more, and has an enormous and specific impact, is design. As cultural mediators, designers mostly work in a depoliticized way, without being aware of their impact on society, culture, and the environment. Design as a profession and one of the pillars of creative industries and cognitive capitalism in general is stuck in a narcissistic position of market-driven egotism, unable to reflect on the consequences.

2 Taken from an interview with Pedro Salgado.

The visual communication design profession is in need of fundamental change. In a time of radical uncertainty and environmental degradation, visual communication, institutionalized through the academic and business professions, has not developed its communication potential. It operates in ways that maintain the status quo or even exacerbate the situation. For visual communication to change, we need to fundamentally alter our thinking, develop new theory and refocus our practice. (Vodeb, 2012)

The third important reason for careful consideration is that nature is increasingly under threat. Caring for the environment is one of the fundamental tasks of the future. People will only change their behaviour if they can find reasons for it in terms of health, money, morality, ethics, or prestige. Communication and education are essential to motivate us to preserve the quality of the natural and cultural environment (biodiversity, clean water, air, sound), a beautiful view (visual ecology, urban ecology), etc., and thus a better culture of living.

As mentioned above, communication in the public space, mainly through mass media (from printed books to electronic media), decisively influences an individual's perception, world view and, consequently, their actions. Especially today, when we are more dependent on information than ever before in the history of mankind. Visual communication plays a decisive role in this context because it is much more dynamic, because it includes moving images as well as static ones, because it enables virtual travel through space, because it reads fast, and because its language is universal, as it transcends the barrier of national languages. And yet, education and the development of theoretical foundations in the field of visual communication have been neglected.

These were the reasons for the creation of the Kaverljag programme, which was developed gradually from year to year, based on experience, feedback from participants and the professional public, and above all in interdisciplinary cooperation. The students who took part in the Kaverljag Workshops project (designers, illustrators, communicologists, film directors, etc.) had the opportunity

to acquire valuable information in the field of ecology and the protection of nature and natural heritage, which they could pass on in their work after finishing their studies, and thus raise awareness on ecology themselves.

The project's focus on ecology has been an important feature of most activities and contents under the Kaverljag programme. To this end, we founded the Kaverljag Association and, in cooperation with the UL AFAD, we developed programmes in the field of scientific and popular science illustration and socially responsible design. The role of Prof. Zdravko Papič was crucial in this process. Each year, we have looked for pressing issues in the field of natural sciences and ecology, and from 2009, also created content for a very neglected social group, blind and partially sighted people.

The success of our programme lies in the co-operation between social and natural sciences. In the project, students from the humanities are confronted with natural sciences and environmental protection, and vice versa, students from natural sciences are confronted with the social science aspects of environmental protection. It provokes a shift in the way people think, in their awareness of the environment, which is a prerequisite for ecology. Through the workshops and the results of these workshops, we are trying to achieve a shift in this way of thinking.

At the Kaverljag workshops we try to strike a balance between scientific illustration, painting practice (study drawing, colour study, etc.) and a clear visual message, and socially responsible design, especially in the field of environmental protection and social sustainability.

KAVERLJAG INTERNATIONAL SUMMER SCHOOL

I have been working in the field of illustration since 1987. My work focuses on scientific and popular science illustration. The very first illustrations impressed the client and the volume of my commissions has increased considerably. In addition to botanical and natural science illustrations and complex maps (*Atlas of Slovenia* for primary

and secondary schools), illustrating mathematics posed a particular challenge. This type of natural science illustration requires additional study, is very time-consuming and requires specific discipline and close collaboration with the scientist or author of the content.

In the academic year 1997/98, Zdravko Papič, a professor of illustration at the UL AFAD, and I discussed the idea of offering students an additional programme of scientific illustration in the form of summer workshops, which we would organize at the studio in Kaverljag, a small hamlet in the village of Grintovec near Šmarje nad Koprom. Also at that time, the United Nations (UN) declared 1998 the *Year of the Ocean*, and the Marine Biology Station Piran (hereinafter "MBS") was tasked with actively participating in this global campaign. Another important event was that in 1998 the MBS in Piran celebrated three decades of its existence and decided to solemnly celebrate its anniversary with a large-scale exhibition. In order to carry out both tasks as successfully as possible and to showcase their achievements, they wanted to collaborate with experts in the visual field, i.e. illustrators and designers. And these are two fields that have been intensively developed at the UL AFAD's Department of Design. Thus, the idea of co-operation between the two institutions arose. The study of scientific illustration, i.e. the illustration of scientific texts, was a novelty in this field, both for the Academy and for the MBS.

The Year of the Ocean campaign and the 30th anniversary of the MBS was a good start for the co-operation between an established scientific institution, in this case the Marine Biological Station in Piran, and the UL AFAD, and the point of contact was my studio in Kaverljag. From that year onwards, the Kaverljag workshops were held continuously until 2012.

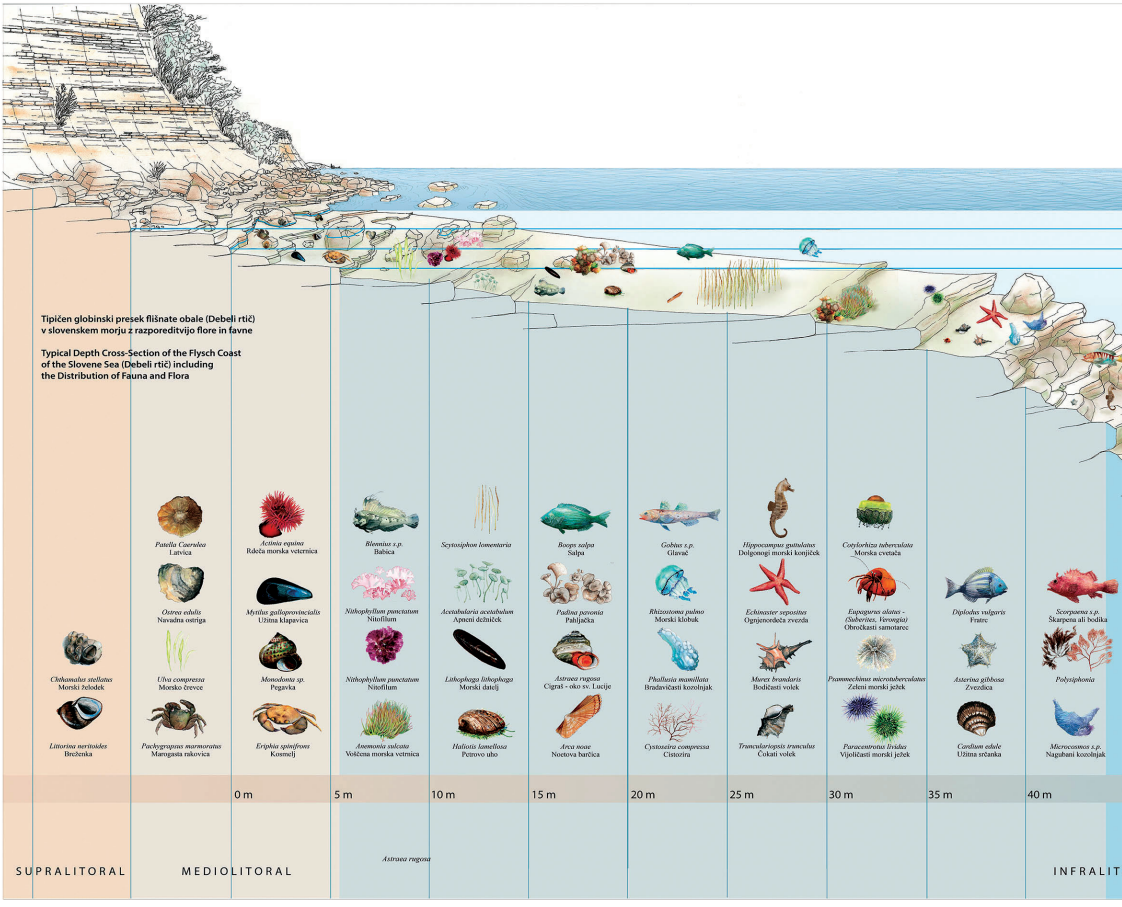
In **Kaverljag Workshop 001** entitled *The Sea and Scientific Illustration*, the students, under the expert guidance of their mentors, professors from the Academy, and lecturers and scientists from the MBS, created illustrations and the concept of the MBS's exhibition

Figure 1: Kaverljag Workshop 001 – The Sea and Scientific Illustration, 1998, by Aleš Sedmak (personal archive)

Figure 2: Illustrations of Marine Organisms, by Narvika Bavcon, Karina Brumec, Andreja Čeligoj, Urša Krašovic, Saša Kerkoš, Dunja Plestenjak, Maja Rebov, Peter Škerlj, Meta Wraber, 1998 (Kaverljag Association archive)

Figure 3: *Škocjanski Zatok* poster, by Zsuzsanna Borogdai, 1999 (Kaverljag Association archive)

Figure 4: *Tourism is Us...* poster, by Nika and Jana Urbas, 2000 (photo by Jaka Kramberger, Kaverljag Association archive)


Tipičen globinski presek flišnate obale (Debeli rtič)
v slovenskem morju z razporeditvijo flore in favne
Typical Depth Cross-Section of the Flysch Coast
of the Slovene Sea (Debeli rtič) including
the Distribution of Fauna and Flora
Patella Caerulea
Latvica
Actinia equina
Rdeča morska vetrnica
Blennius s.p.
Babica
Scytosiphon lomentaria
Boops salpa
Salpa
Gobius s.p.
Glavač
Hippocampus guttulatus
Dolgonogi morski konjiček
Corylorhiza tuberculata
Morska cvetača
Ostrea edulis
Navadna ostriga
Mytilus galloprovincialis
Užitna klapavica
Nithophyllum punctatum
Nitofilum
Acetabularia acetabulum
Apneni dežniček
Padina pavonia
Pahljačka
Rhizostoma pulmo
Morski klobuk
Echinaster sepositus
Ognjenordeča zvezda
Eupagurus alatus - (Siberites, Verongia)
Obročkasti samotarec
Diplodus vulgaris
Fratrc
Scorpaena s.p.
Skarpena ali bodika
Ochtamalus stellatus
Morski želodek
Ulva compressa
Morsko črevce
Monodonta sp.
Pegavka
Nithophyllum punctatum
Nitofilum
Lithophaga lithophaga
Morski datelj
Astraea rugosa
Cigrast - oko sv. Lucije
Phallusia mamillata
Bradavičasti kozolnjak
Murex brandaris
Bodičasti volek
Psammechinus microtuberculatus
Zeleni morski ježek
Asterina gibbosa
Zvezdica
Polysiphonia
Littorina neritoides
Breženka
Pachygrapsus marmoratus
Marogasta rakovica
Eriphia spinifrons
Kosmelj
Anemonia sulcata
Volčena morska vetrnica
Haliotis lamellosa
Petrovo uho
Arca noae
Noetova barčica
Cystoseira compressa
Cistozira
Trunculariopsis trunculus
Čokati volek
Paracentrotus lividus
Vijoličasti morski ježek
Cardium edule
Užitna srčanka
Microcosmus s.p.
Nagubani kozolnjak
0 m
5 m
10 m
15 m
20 m
25 m
30 m
35 m
40 m
SUPRALITORAL
MEDIOLITORAL
INFRALIT
Astraea rugosa

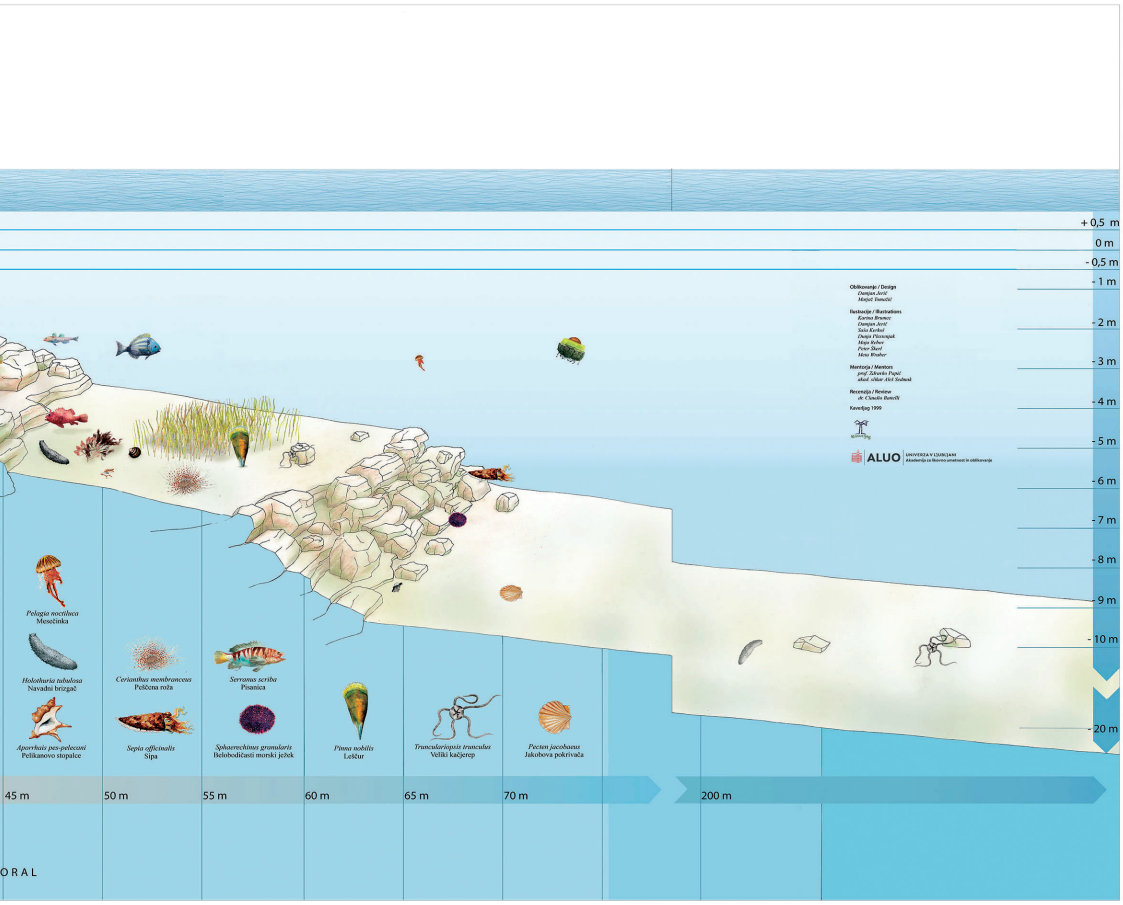


Figure 5: Typical Depth Cross-Section of the Flysch Coast of the Slovene Sea (Debeli Rtič) Including the Distribution of Flora and Fauna, Design: Damijan Jerič, Matjaž Tomažič; Illustrations: Narvika Bavcon, Karina Brumec, Andreja Čeligoj, Saša Kerkoš, Dunja Plestenjak, Maja Rebov, Peter Škerlj, Meta Wraber, 1999 (Kaverljag Association archive)

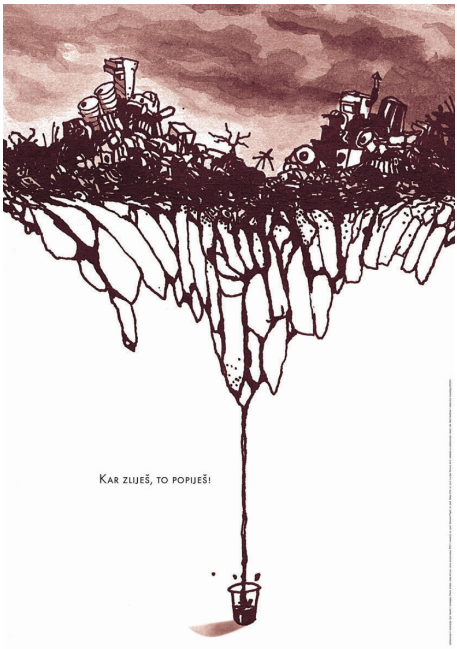


Figure 6: *What You Pour, You Drink* poster, by Igor Nardin, 2001 (Kaverljag Association archive)

Figure 7: *Koper* poster, by Lidija Skenderovic, 2002 (Kaverljag Association archive)

Figure 8: Location signage (Kaverljag Association archive)

Figure 9: Participants and Mentors of the International Kaverljag Workshop 016 – Insects for the Blind and Partially Sighted, 2011 (photo by Aleš Sedmak, personal archive)

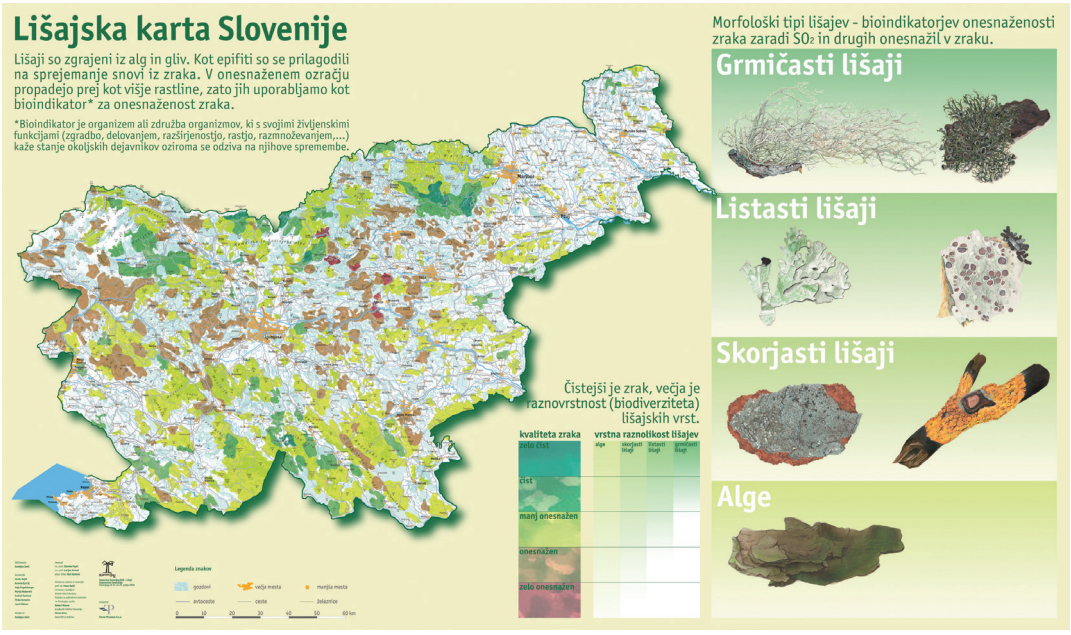


Figure 10: *Lichen Map of Slovenia*, by Akaša Bojič, Anamarija Cej, Neja Engelsberger, Jaka Kramberger, Marija Nabernik, Igor Nardin, Andraž Sedmak, Jure Slivnik, Tinka Tomazin, Leon Vidmar, 2004 (Kaverljag Association archive)

Figure 11: Moth *(Eriogaster catax)*, by Lech Kolasiński, 2011
(Kaverljag Association archive)

Figure 12: Little Bittern *(Ixobrychus minutus)*,
by Zarja Menart, 2009 (Kaverljag Association archive)

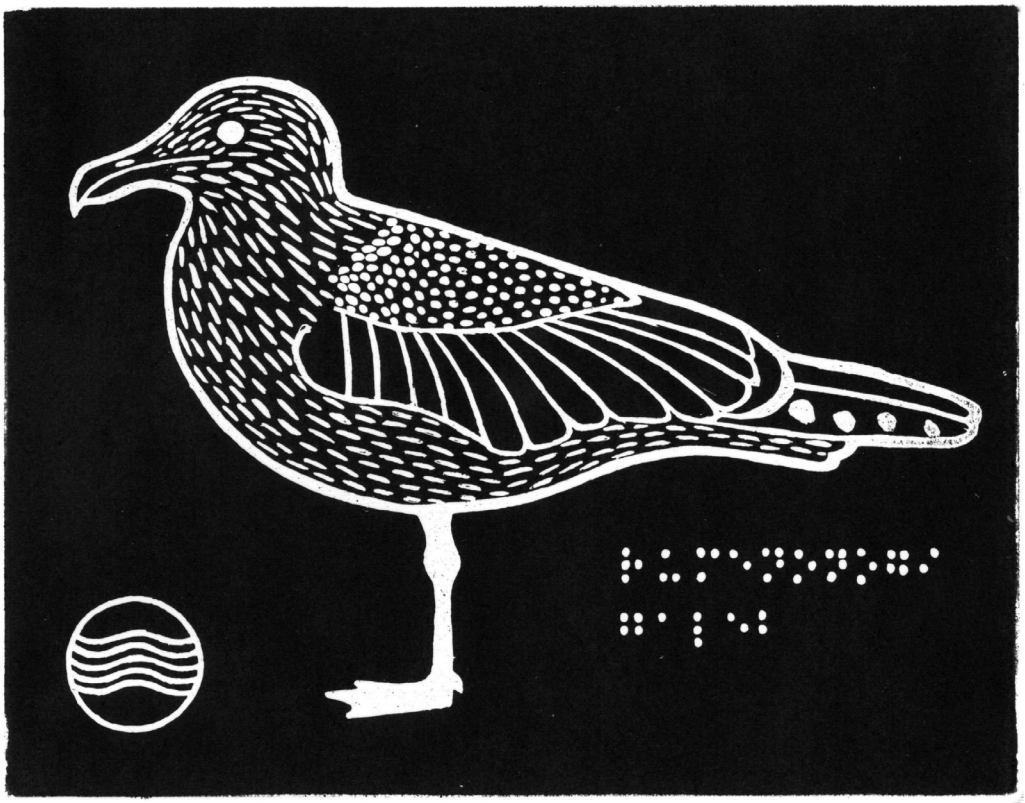


Figure 13: Herring Gull *(Larus argentatus)*,
by Zarja Menart, 2009 (Kaverljag Association archive)

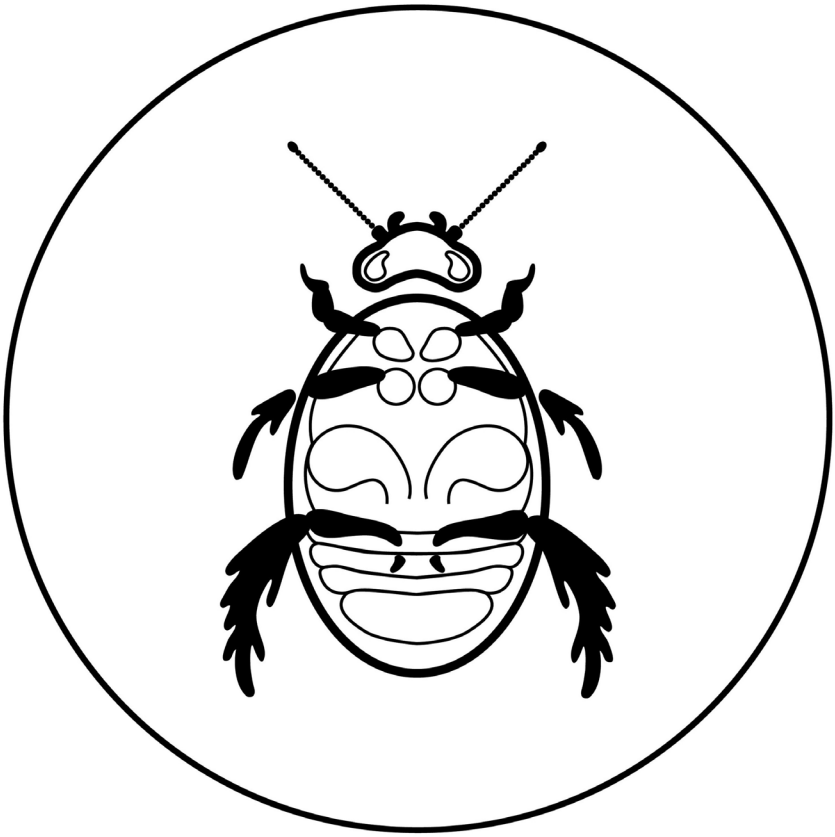


Figure 14: Banded Water Beetle *(Graphoderus bilineatus)*,
from the book *Žuželke od blizu* (Insects Up Close),
vector drawing and design by Hana Jesih, 2012
(Kaverljag Association archive)

as well as its visual identity and individual design elements (a poster, an invitation, a banner, an informative viewing card, a model of a part of the Slovenian coastline, etc.). The collaboration between the scientists and artists resulted in the exhibition *Colours of the Bay*, which was held in various settings at the Meduza II Gallery in Piran (July 1998), the UL AFAD's Department of Design (October 1998), and the Insula Gallery in Izola (December 1998), at the Municipal Gallery in Piran (April 1999), and at the National Institute of Biology in Ljubljana (December 1999), and a large panoramic illustration, *Typical Vertical Section of a Flysch Coastline (Debeli rtič) in Slovenia with its Flora and Fauna*, which is still used as in primary and secondary schools.

> *"The exhibition was dedicated to the treasures of our little corner of the sea, which are often not recognized, not least because we like to compare them with the more southern parts of the Adriatic Sea. It also emphasized the fragility and vulnerability of this ecosystem and our commitment to get to know it in all its nuances and to fight for its preservation. A large part of the exhibition was devoted to showing the main features of the Gulf of Trieste and its ecosystem: from the physical and chemical characteristics, sediments, organisms, the peculiarities of the seabed and the water column above it to the unusual phenomena and the various types of pollution.*
>
> *Nature has inspired many artists past and present, but before man invented photography, illustrations—paintings and drawings of organisms, nature, and natural phenomena—were the only way to capture and preserve its visual image. This is one of the reasons why art has been so important in the development of the natural sciences and why illustration is still a powerful tool for communication today." (Malej, 2024, 60–62)*

Already at the first workshop in 1998, we could observe the intensive filling of Škocjanski zatok to create a new area for expanding the city and the port of Koper. It was then that we decided on the theme of the next **Kaverljag Workshop 002 – Škocjanski zatok**.

The Škocjanski zatok bay is a wetland created by the expansion of the city of Koper and its port. The bay provides shelter for many bird species and, as the only semi-saline wetland in Slovenia, is a unique and very sensitive habitat. Prof. Tugo Šušnik, an academic painter and a mentor at the Kaverljag Workshop, beautifully put the essence of what we do into words: "The interplay of urbanism and ecology has almost dramatic proportions in this landscape, and is a fitting backdrop for contemplation and creativity, for thinking about human existence, about its direct role in the increasingly complex problem of nature conservation. The uniqueness of the 'Zatok' ecosystem in Slovenia is undeniable, as is the violent 'visual' encroaching of the city into this unique combination of freshwater and saltwater ecosystems. Here, then, is an opportunity to see, depict, document and comment on the issues of our very near future in all their disturbing dimensions, using a variety of visual media."

Our aim was to use visual means/tools to demonstrate and raise awareness of the potentially devastating consequences of the collapse of Škocjanski zatok. We wanted the citizens of Koper and all those interested to experience it as part of our natural heritage and a vital habitat for many plant and animal species.

We set up an exhibition of provocative posters at the UL AFAD's Department of Design (October 1999), in the Praetorian Palace in Koper (October–November 1999) and in the lobby of the Ministry of the Environment and Spatial Planning (November–December 1999), which also influenced the future fate of Škocjanski zatok. Among other things, the poster exhibition contributed to the Ministry's decision to declare Škocjanski zatok a national park!

One of the reasons for the creation of the project **Kaverljag 003 – Clean Environment** in 2000 was the increasingly ecologically threatened landscape. Istria, with its particular climate, vegetation, and culture, is increasingly exposed to various changes and the influx of modern nomads (tourists) along the coast (especially in summer). On the other hand, as an empty and decaying hinterland, without the right energy and incentive for development, Istria has

become an ideal place for illegal dump sites. That is why we chose the issue of illegal dump sites and their negative consequences for the air, soil, groundwater resources, the aesthetic appearance of the landscape, and tourism as the topic of this workshop.

We produced a series of posters and various visual messages and communicated them to the general public through media and exhibitions.

By including environmental themes in the next workshop, we also wanted to draw attention to the potential dangers and increased risk to the habitat and to encourage a better attitude towards the environment, especially clean groundwater resources. Respecting and protecting our only, and also the cleanest, water source in the coastal region is the only way to prevent the region from becoming totally dependent on other, foreign water sources. Clean drinking water is becoming an invaluable commodity and a major asset for a region or a country.

In **Kaverljag Workshop 004 – Clean Environment, Clean Waters**, we developed a year-long marketing strategy and concrete design solutions for the conservation and protection of groundwater resources in the Coastal-Karst Region. The programme was aimed at raising awareness about the importance of clean water.

In 2002, we focused on the Sečovlje salt pans and the architectural heritage of Koper in **Kaverljag Workshop 005 – Cum Grano Salis**. The first thematic set focused on the Sečovlje salt pans, a distinctive environment characterized by the coexistence of natural and cultural heritage. The project was aimed at encouraging people to think that the salt-making identity we have inherited should be passed on to our descendants. The second thematic set focused on Koper and its architectural heritage, which is, unfortunately, largely forgotten and neglected. That is why the main objective of both projects was to draw people's attention to our region's rich natural and cultural heritage.

The workshop was implemented as part of the CEEPUS programme (Central European Exchanging Programme for University Studies) and in addition to UL AFAD, the participating institutions were: the University of Technology, Faculty of Fine Arts, Brno, Academy of Fine Arts, Krakow, Academy of Fine Arts Zagreb, University of Art and Design, Cluj, and Moholy-Nagy University of Art and Design Budapest (MOME). We included additional content in the programme: promotion of the individual schools, both in terms of presenting creative achievements and the diversity and special features of pedagogical processes. The meeting was aimed at networking and exchanging pedagogical and creative experiences of academies in Central Europe. The aim of the workshop was also to establish and promote mobility of students and professors in Central Europe and to take advantage of intellectual and friendly connections and opportunities.

The following year's **Kaverljag Workshop 006 – Educational Trail Along the River Dragonja** was intended for recipients of the Zois scholarship. Throughout the individual programmes, we have developed a method of translating theory into practice, as a model for delivering natural and ecological content to social science students, and vice versa, delivering insights from a social science perspective to students of natural sciences. The workshop was attended by students – Zois scholarship holders from the Biotechnical Faculty, the Faculty of Education, the Faculty of Arts, the Faculty of Social Sciences, and the Academy of Fine Arts at the University of Ljubljana.

The Dragonja river basin is one of Istria's ecological and natural gems. It is still home to native animal and plant species, and the landscape is also unique: with its hill-valley relief it creates an incredible illusion of movement. This part of the Slovenian coastal region is thus vital and useful for environmental, biological, forestry, geographical, geological, and, last but not least, artistic debates. We decided to organize an interdisciplinary workshop based on illustration, biology, and much more.

The main aim of the project was to create a learning trail along the River Dragonja, to evaluate and promote the natural resources of the protected area, the future Dragonja Landscape Park. Thereby, we wanted to indirectly support the conservation and protection of this unique natural environment and to strengthen cross-border cooperation between Italy and Slovenia.

In 2004, we implemented four projects:

Kaverljag Workshop 007 – Lichens The National Education Institute Slovenia invited us to dedicate one of our workshops to lichens. Lichens are made of algae and fungi. Like rhododendrons, they have no cover tissues, but like epiphytes, they have adapted to absorbing substances from the air. In polluted atmospheres, they decay earlier than taller plants, and are therefore used as a differential diagnostic tool and serve as a bioindicator of clean air.

The aim of the workshop was to present lichens and their importance in determining air quality by employing the visual language of illustration, design, and photography and to produce a *Lichen Map of Slovenia*, which has been and continues to be an excellent teaching aid in primary schools.

Kaverljag Workshop 008 was also part of the CEEPUS programme and aimed to bring together professors and students from art academies in Zagreb, Katowice, Krakow, Budapest, and Ljubljana. As in 2002, we continued to promote the individual schools in 2004. The programme was aimed at contributing to the promotion of a cultural space common to all European peoples. In doing so, we wanted to support creativity and mobility in culture and education, openness and the flow of arts and culture, and foster an intercultural and international dialogue.

Kaverljag Workshop 009 – Two Sculptures in Two Coastal Towns The year 2004 marked 50 years since the signing of the London Memorandum, which had a decisive impact on relations

and development on both sides of the southern border. At the invitation of the municipal administrations of Izola and Piran, we wanted to use the project *Two Sculptures in Two Coastal Towns* to highlight the importance of this event that happened 50 years ago and to raise awareness of the presence and importance of the sea that Slovenia gained with this memorandum.

The sculptures symbolize openness to the sea and a willingness to communicate openly. A group of eight young artists, students of the UL AFAD and the Faculty of Education, aimed to create a new and unique message based on a positive attitude towards the environment and the times in which we live. The unveiling ceremony of the monument *Loners 1:2:6:21* in Lucija and the monument *The Sovereignty of the Free Territory Belongs to the People of This Territory* in Izola took place on Tuesday, 5 October 2004.

Kaverljag Workshop 010 – CEEPUS 05 Ethnology of Slovenian Istria A meeting of professors and students from art academies in Krakow, Budapest, Cluj-Napoca, and Ljubljana. The meeting was a continuation of the 2004 programme and was primarily aimed at networking and exchanging teaching and creative experiences. Socializing and getting to know each other allows new ideas for a creative approach in the pedagogical process. The second objective was to produce posters and various promotional materials on the ethnology of Slovenian Istria. The result was a series of humorous posters, where, after a ten-day stay in Slovenian Istria, the participants translated their emotions into a visually effective message, and two brochures, a kind of visual travelogue through the history of Istria in the language of symbols that have been preserved to this day.

The Škocjan Caves were added to the UNESCO World Heritage List in 1986 due to their profound importance for the world's natural heritage. On the occasion of the 20th anniversary of its entry on the list, in 2006, the Škocjan Caves Park wanted to present the special features of Škocjan Caves in the form of a panoramic illustration. In **Kaverljag Workshop 011 – Škocjan Caves,** we produced a series of illustrations

and one large panoramic illustration – a cross-section of the Great Valley with a section of the cave featuring drawings of the special features found there: the plant and animal species and the diversity of habitat types from the surface to the bottom of the cave in sections.

Workshop Kaverljag 012 – Hrastovlje Park of Indigenous Animals and Plants I and **Workshop Kaverljag 013 – Hrastovlje Park of Indigenous Animals and Plants II**

In the Hrastovlje Valley, local and municipal decision-makers planned to create a nature learning park to host a collection of material on rural culture and indigenous endangered flora and fauna. The park was supposed to be educational, familiarize future generations with their cultural heritage, and be of interest to tourists who want to learn more about our culture and traditions, as well as to casual visitors and people who want to spend quality time in the countryside.

In cooperation with the Department of Landscape Architecture of the Biotechnical Faculty, and the Moholy-Nagy University of Art and Design (MOME) in Budapest, we worked with two groups of students to explore the natural and cultural-historical patterns of Slovenian Istria, as a basis for finding new programmes of interest to tourists. The programme was designed to support the newly created landscape park in the Hrastovlje Valley and contribute towards creating its visual identity.

The project has built on the results of the cross-border project "Park Sloge", founded by the Park Sloge Association in Milje. The work in the workshop also touched on other protected areas (Škocjanski zatok, Sečovlje salt pans, Dragonja Landscape Park, Kraški rob).

In 2009, for the first time, we were confronted with the difficulties that blind and partially sighted people have in getting to know and perceiving the natural world. The **Kaverljag Workshop 014 – Flora and Fauna of Slovenian Istria for the Blind and Partially Sighted People** (Visual Communication for the Blind and Partially Sighted People) was a new milestone in the development of the programmes.

The Škocjanski zatok Nature Reserve is of vital importance due to its rich flora and fauna that include numerous rare and endangered species and its unique location in the immediate vicinity of the city of Koper, which provides excellent opportunities for recreation, education, and experiencing nature. The objectives of the institution managing the reserve, the Bird Watching and Bird Study Association of Slovenia (hereinafter "BWBSAS"), pay special consideration to people with disabilities and blind and partially sighted people. A long-standing problem is how to guide blind and partially sighted people along the Škocjanski zatok educational trail, a trail that presents a completely new experience for them, and how to introduce them to the rich fauna and flora using the sense of touch. This is also a big challenge for artists and illustrators who base their experience on sight.

In cooperation with BWBSAS, we decided to dedicate this workshop to finding creative solutions on how to present the area's most common organisms in the form of relief illustrations and thus enable blind and partially sighted people to get to know at least a part of the natural beauty and diversity of this habitat by using the sense of touch. This was an important decision that has also influenced the future development of the Kaverljag programme. We brought together biologists, communicologists, illustrators, and students of art academies with blind and partially sighted people, in order to create tools that will help the latter learn about the flora and fauna of Škocjanski zatok. It is about highlighting the challenges that marginalized groups face, about creating a more welcoming environment, and educating blind and partially sighted people. The project also provided the opportunity to learn about science for target groups that were previously excluded.

Experts, BWBSAS staff, naturalists, conservationists, and ornithologists guided us around Škocjanski zatok and shared their extensive knowledge. Members of the Inter-Municipal Association of the Blind and Partially Sighted Koper and their expert staff elaborated on how blind and partially sighted people perceive the world, and the increased sensitivity of their other senses, such as hearing and especially touch.

We gradually developed the bird's visual image from a simple, stylized form to a very rich and realistic image. Blind and partially sighted people used touch to follow the increasingly complex form and gave feedback on what details they could still sense. Using this and similar methods, we have forged the key to creating effective science illustrations for blind and partially sighted people.

The lectures in the first part of the workshop provided expert and reliable information that served as a basis for the creative work that followed. In the second part of the workshop, different art solutions were proposed for depicting the most common birds living in Škocjanski zatok: a series of drawings and sketches, colour illustrations, stencils for intaglio and blind printing, jigsaw puzzles, paper leaflets, origami, cut-outs, etc. A mock-up of a "new book" was also created for sighted youngsters, where they can identify the illustrations using the sense of touch and thus get close to the world of blind people for a moment. This is a very innovative book for sighted people so they can put themselves in the shoes of blind people. As with all the workshops, we organized a press conference and an open house day.

Creating visual communication for the blind and partially sighted requires very specific approaches. But working with the blind and partially sighted has been a remarkably positive experience, with all participants expressing a desire to continue with similar projects. This is also evident from the solutions, the scientific illustrations for the blind and partially sighted, and also from the subsequent activities, as several of the participants – students at the time – decided to dedicate their diploma to this topic and to continue creating content for the blind and partially sighted in their career.

After the workshop, in 2010, we began editing the material and preparing the publication of the book *Dotakni se ptice* (Touch a Bird). This was a very demanding editorial, design, and printing (technological) job. It measures 27 x 23 cm, has 16 pages/sheets bound with spiral binding. In the introductory text, I talk about the project and Borut Mozetič describes ten different birds. The text is

typeset in large print (24 pt) for the partially sighted people and in braille for the blind people. The book was published by the Kaverljag Association and designed by me, with illustrations by Anita Lozar, Zarja Menart, Mitja Mihelič, Lucija Pale, Tanja Prevejšek, Aleš Sedmak, and Judit Voros. The text in braille was written by Blaž Pavlin and the book was printed in Koper at the Stražar printing house in 2010. The book was made possible by various funders, sponsors, and donors: European Agricultural Fund for Rural Development – EAFRD; Municipality of Koper; Luka Koper; Intesa Sanpaolo Bank, Vzajemna insurance company.

The book presentation and the exhibition of the illustrations took place on the premises of the Community Association of Šmarje in March and April 2010. The book was warmly received by visitors and the media. Experts in the field of visual impairments often gave feedback on the book, for instance Aksinja Kermauner, PhD, in her letter from 10 May 2010:

> *" Dear Sir or Madam,*
> *Today I took your book to school and showed it to the most critical audience – our children. They examined it with great interest and were avid with excitement!!!*
> *Congratulations on a really beautiful and useful creation!"*

Concurrently with the development of the programme for blind and partially sighted people, we continued with the CEEPUS programme in line with the objectives set in 2002, 2004, and 2005, and upgraded it with content of vital importance for Slovenia, the Carniolan honey bee, and carried out **Kaverljag Workshop 015 – Apis Mellifera Carnica.** The Carniolan honey bee (*Apis mellifera carnica*), is a breed of honey bee (*Apis mellifera*) native to the Balkan Peninsula. It is the second most common honey bee breed in the world and for historical reasons, the Gorenjska region (Upper Carniola, Slovenia) is recognized as its home. By pollinating plants, bees are indispensable for food production and biodiversity. They pollinate most plants and fruit trees, allowing plant species to

develop, thrive and spread, and also have an important impact on food production. Humans and their activities, especially intensive farming, pose one of the biggest threats to bees. In Slovenia, an average of 23% of bees died in 2009–2010, and we need to be aware that bee health is something that should be advocated by everyone, from farmers and beekeepers, politicians and workers to gardeners around the world, not just locally or nationally, but globally. Therefore, the popularization of this important issue was a very important topic to be addressed at the workshop.

International Kaverljag Workshop 016 – Insects for the Blind and Partially Sighted People

In 2011, addressing a request from the Institute for Blind and Partially Sighted Youth in Ljubljana, now the Centre IRIS – Centre for Education, Rehabilitation, Inclusion and Counselling for the Blind and Partially Sighted, we focused on insects.

We continued with the programme from 2009 and 2010 and realized from the very beginning that insects are particularly difficult to depict, as blind and partially sighted people cannot touch live animals. The illustrations and, subsequently, the book for blind and partially sighted people are a big challenge, especially for visual artists who essentially deal with sight and vision. The experience and the results of the previous workshop were a great foundation for us to continue our work.

This was a very holistic and comprehensive project, as it works on several levels. First, we educated the young workshop participants on insects, a small part of nature that plays an important role. An important aspect of the project was to also encourage solidarity and promote tolerance among young people, in particular with a view to strengthening social cohesion. And the third important aspect of the workshop was to provide blind and partially sighted people with tactile illustrations in the form of a book introducing them to insects. Creating a quality work of art, especially one that has a lasting benefit for certain target groups, has a very positive effect on young authors. Based on our experience, we can

see that there is a noticeable difference between students who have been involved in workshops and those who have not. The former have a much more positive attitude towards creative work and their studies than the latter.

In an interdisciplinary multicultural eight-day workshop, which took place between 8 and 16 July 2011 in Kaverljag, in collaboration with partners from Italy (Academy of Fine Art of Lecce), Poland (Jan Matejko Academy of Fine Art, Krakow), Hungary (Moholy-Nagy University of Art and Design, Budapest), and Slovenia (UL AFAD), as well as colleagues from the National Institute of Biology (NIB), the Inter-Municipal Association of the Blind and Partially Sighted Koper (IMABP Koper) and the Union of the Blind and Partially Sighted of Slovenia (UBPSS), we searched for creative solutions and produced relief illustrations. Nineteen students and eight tutors from Poland, Hungary, Italy, and Slovenia took part in the workshop. The young participants were able to combine their theoretical and practical knowledge with the opportunity to understand differently abled people. As in the previous workshop, the project connected young people with experts in visual communication, illustration, and biology, and blind and partially sighted people.

By opening up borders and offering young people the opportunity to learn about and interact with different cultures, the classes, meetings, and gatherings were aimed at strengthening young people's positive awareness of other cultures. Through discussions, art techniques, group work, presentations, and cuisine, young people encountered different cultures. This fostered creativity and mobility in culture and education, the openness and flow of arts and culture, intercultural and international dialogue, and developed a sense of tolerance and understanding of diversity (otherness).

Expert presentations of the perception of the environment of blind and partially sighted people, their direct involvement in the workshop programme, socializing with the participants, communication, and, finally, the creation of a medium for blind and partially sighted people to facilitate their perception of the living world

and help to overcome prejudices against differently abled people, especially blind and partially sighted people. With an annual programme of workshops, the project develops a sense of tolerance and understanding of diversity and fosters young people's willingness to help others, especially people with visual impairments.

Through in-depth work at the workshop and in subsequent activities, we built upon the results of the workshop and developed standards for presenting science content to people with visual impairments. And standards are crucial for readers with visual impairments.

Insects are small, so we chose to present each insect in life-size and enlarged scale. We cannot get as much information from the sense of touch alone, compared to sight, so students reduced the amount of information to better present a particular type of insect. When we reduced the amount of data and only highlighted the essential visual features, we provided more quality information to help people identify a particular insect. We have depicted them in a typified way, as we have found that individual, artistic interpretation can overload the perception of blind and partially sighted people and thus prevent a clear picture of the depicted object.

In order to make it easier and quicker for blind and partially sighted people to recognize the features of each insect, we decided on uniform rules for creating illustrations, which resulted in a consistent book design. A frame separates the illustrations from the text. The motif is centrally positioned in the frame for easy orientation and the insect is always facing upwards. All insects are illustrated from a bird's-eye view. Despite the differences that can be observed between insect specimens in nature, the left and right sides of the insect are illustrated symmetrically. There is at least 1 cm of space between the frame and the motif so that a blind or partially sighted person can distinguish between the object of observation and the orientation aid.

Due to the vast illustrative material (the workshop produced a series of over 180 illustrations, of which over 60 are relief prints), we considered the idea of making two books in the days after the

workshop. Due to the complexity of the preparations for printing and the printing itself, we were limited in scope and could have presented 12 insects in one image with corresponding text in braille. In this case, users would only be able to obtain certain information by touching. The second concept was to present the insect in all its developmental stages (larva, adult), highlighting the difference between the male and female specimens, the top and bottom view, and thus offering more information about the individual insect. This contextual approach was possible because the workshop participants illustrated both male and female specimens of a particular species and highlighted the difference between the sexes. We chose the latter concept because it is also more appropriate from a professional point of view and closer to the concept of natural history and popular science illustration.

INSECTS UP CLOSE

The final product of the project, the book *Žuželke od blizu* (Insects Up Close), measures 42 x 30 cm in size, has 24 pages and a Japanese spiral-bound cover. The introductory text by Al Vrezec, PhD, introduces the insects of Natura 2000. The book contains descriptions and illustrations of three different insects. The text is in large print (24 pt) for the partially sighted people and in braille for the blind people. The book was published by the Kaverljag Association, designed by Hana Jesih under the supervision of Prof. Zdravko Papič, and printed in Krakow by Rafarl s.c. in 2012, with special paper and clichés made in Germany. The book was made possible by various funders, sponsors, and donors: European Youth in Action Programme, Public Fund of the Republic of Slovenia for Cultural Activities, Municipality of Koper, Adriatic Slovenica, Intesa Sanpaolo Bank, Nova Ljubljanska banka, A. Mlinar d.o.o., Rotary Club Koper, Association of Lions Clubs, Distrikt 129, Slovenia. The book has received a lot of attention, including from the media and especially from those for whom it is intended. Here is one piece of feedback we received:

"The book 'Žuželke od blizu' is a precious gift from the authors, not only for the blind and partially sighted, but also for sighted children, teachers, and all book lovers. In the book, blind and partially sighted people will find a presentation of three virtually unknown insects which, I dare say, they have no chance of seeing anywhere else, except in this specially adapted technique. A short and concise description of the insect is followed by several typical pictures showing the insect in life-size and enlarged scale and from different angles. The quality of the illustrations is impressive, as it is clear at first glance that they could only have been created on the basis of the author's excellent knowledge of tactile sensory in general and the specific perceptual needs and abilities of people with visual impairments. As such, the book can serve as a very good teaching aid. Blind and partially sighted children will be able to learn about the structure and characteristics of insects, learn orientation on paper and in space, practice touch, and become familiar with the characteristics of a tactile image. By flipping through the book, sighted children will be able to enter the world of their blind and partially sighted peers, empathize with their needs, and test their own sense of touch. Teachers will be able to use it to enrich their lessons in different subjects and to contribute to education for harmony between different people."

Sonja Pungertnik,
BSc in Defectology, radio presenter (blind since birth)

IN CONCLUSION

We chose natural sciences and ecology as the theme of the International Kaverljag Workshops. Already in 1998, we recognized that these are two topics that are crucial for our future in the broadest sense of the word. They are also interdisciplinary in nature, involving a range of natural and social sciences, and offer an excellent opportunity for students to try their hand at scientific illustration and visual communication design.

Another objective for the workshops was multiculturalism and integration in the European space. Getting to know different national cultures and concepts preserves and strengthens national and cultural specificities, while on the other hand allowing an understanding of these cultures. We have collaborated intensively with the faculties and academies involved in the CEEPUS programme. The workshops were aimed at students and professors from Slovenia and other European countries, where small groups (teams) developed their ideas into useful products.

A third important objective was socially responsible communication with different target groups, educating and raising awareness among young people about environmental conservation and promoting tolerant attitudes towards the differently minded, as well as people with different social and cultural backgrounds.

The work was carried out under the mentorship of an expert committee of professors from the UL AFAD, Department of Design, now the Department of Visual Communication Design, scientists, and other experts and in a unique milieu away from the usual faculty premises and studios, where students could focus exclusively on the task at hand.

The project also focused on developing specific educational work methods, such as teamwork and group problem-solving, by introducing the methodology of scientific research, delivering information and content effectively, and providing optimal conditions for creative work. This includes the rhythm of lectures, studio work, meals, rest periods, field visits, the quality of equipment and materials, and a team spirit. We have thus developed a precise and efficient method for the eight-day workshop, which allows the participants to be extremely creative and productive. One important aspect is the search for fresh and unconventional approaches and ideas in visual communication. The aim of each workshop was to develop a communication and illustration strategy and concrete design solutions for the content selected that year. Here is a brief note from one of the visiting professors sharing his experience:

" In 1995 I started teaching at the CEEPUS organization as a guest lecturer in the international exchange programme for professors and students at the universities of Budapest and Ljubljana.
After getting to know the professors, a few workshops and exchanges, I came to Kaverljag in 1999…
From then on, almost every summer, if we were able to, we would get on a school bus and head towards Kaverljag.
The environment, the programmes, the expert lectures, and above all the eco-cultural approach were unforgettable every time, which immediately motivated all the students and colleagues from the foreign academies to work towards the 'worthy' goal. The free spirit and the atmosphere that were present throughout the workshops in Kaverljag flowed freely among the workshop participants. The creative spirit and mood helped foster inclusion, education, and friendship.
Koper, Soline, Hrastovlje, iced wine, unforgettable cuisine. It was there I learned that the Boškarin and the grey Hungarian cattle are of the same bloodline, that helping the blind and partially sighted to gain 'visual' experience can even be the subject of a diploma. Interdisciplinary discovery and learning about nature has been and continues to be a great experience, a valuable learning lesson.
But there is something I haven't mentioned yet … The fact that all this has been possible is certainly thanks to Aleš Sedmak, Neva, and their family."

László György Pálfi,
retired professor at MOME

If scientific illustration allows the reader to "see" information that we cannot normally see, blind and partially sighted people can only touch it, so the illustrator has the challenging and important task of creating information for those who cannot see.

In 2012, the Kaverljag programme was discontinued, but it was revived by former students and workshop participants, now professors at the academies in Krakow, Budapest, Lecce, and Ljubljana, and the Kaverljag International Summer School programme continues in a renewed and upgraded form.

I would like to thank Prof. Lech Kolasinski from the University of the National Education Commission in Krakow, Prof. László Nagy from the Moholy-Nagy University of Art and Design in Budapest (MOME), Prof. Antonio Rollo from the Academy of Fine Arts of Bari, and above all, Assist. Prof. Marija Nabernik and the team of professors from UL AFAD for making the continuation of this programme a reality.

Literature and sources

Lee, J. B., Mandelbaum, M. (1999): Seeing is Believing: 700 years of scientific and medical illustration. New York, The New York Public Library.

Malej, A., Turk, V. (2024): Morje: vir in navdih. Sea as the Source and as an Inspiration. In: Veber, G. (ur.): Zrcala morja: ko se srečata znanost in umetnost. Polzela, Koper: Iriu d.o.o., KUD AAC Zrakogled. 50–78.

Mateu M., R. (2018): Interview with Pedro Salgado, https://www.blog.illustraciencia.info/2018/01/entrevista-pedro-salgado-ganador-de-la.html (15 October 2024).

Mitchell, W. J. T. (2009): Slikovna teorija. Ljubljana, Študentska založba.

Vrezec, Ž. (2010): Ilustracije, 2 April – 30 May 2010. Podsreda Castle, Kozjansko Regional Park.

Vodeb, O. (2012): Beyond the Image and Towards Communication: An Extra-Disciplinary Critique of the Visual Communication Profession. Design Philosophy Papers, 10, 1, 5–21.