

## Contract subject description

**Contract for:**

“Design and construction of an educative permanent exhibition in the former Carpenter’s Workshop building at the Silesian Museum in Katowice”

The contract is performed under project titled “Revitalization of the historical Main Bathhouse and Carpenter’s Workshop buildings, with adjacent area of the former Katowice mine and the construction of the necessary infrastructure for the purposes of the Silesian Museum in Katowice”, financed from the European Economic Area Financial Mechanism for 2009-2014.



Wsparcie udzielone z funduszy norweskich  
i funduszy EOG, pochodzących z Islandii,  
Liechtensteinu i Norwegii, oraz środków krajowych.

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## 1. General contract subject description

### 1.1. General information on the subject of contract

The subject of the contract for “Design and construction of an educative permanent exhibition in the former Carpenter’s Workshop building at of the Silesian Museum in Katowice” (hereinafter: the Exhibition) is to perform comprehensive development of design documentation and to execute works thereunder, i.e. to contract supplies, services, assembly and installation works, to launch the exhibition and contract possible construction works related to the design and execution of exhibition space in the Carpenter’s Workshop building. Design works and successive exhibition construction shall base on a proposal submitted by the Contractor, and a commission, as well as Principal’s remarks and guidelines listed in this document. The exhibition title proposed by the Principal is “Na Tropie Tomka” (“On Tom’s track”), however, other exhibition titles proposed by the Contractor shall be also considered.

The subject investment project shall be implemented in the former Carpenter’s Workshop building within the premises of the Silesian Museum in Katowice (within the area of the former “Katowice” Hard Coal Mine) in 1 Tadeusza Dobrowolskiego Street. The purpose is to create an educative exhibition in the first-floor exhibition space of this building, in compliance with Polish regulations, in cooperation and consulting on with the Principal.

As part of the Contract, the Contractor shall undertake to prepare for the Principal a complete set of design documents for all works related to the Exhibition, and to execute a complete set of works thereunder. The Contractor shall be in charge of coordinating and organizing the entire design and construction process, including the coordination of other process participants (possible subcontractors).

### 1.2. General substantive contract scope

- a) Development of complete detailed design documentation required for the construction of the Exhibition, encompassing all industries (civil works, electrical and ICT works, set design and construction, multimedia implementation) to fully illustrate all planned works and to enable comprehensive review by the Principal.
- b) Execution of the required works on the basis of the design documentation developed by the Contractor and approved by the Principal.
- c) Designer’s supervision of the construction of the Exhibition.
- d) Launch and startup supervision during Exhibition use by the Principal - the so-called 1-month stabilization period.

## 2. Characteristic parameters defining the size of the Carpenter's Workshop

### 2.1. Location

The investment shall be carried out in the former Carpenter's Workshop building within the premises of the Silesian Museum in Katowice, in 1 Tadeusza Dobrowolskiego Street. The Exhibition will occupy the first floor of the Carpenter's Workshop building. The space of the building will be devoted to exhibition purposes (1<sup>st</sup> floor), as well as educative and spectator purposes (ground floor). The space intended for the Exhibition is approx. 253 m<sup>2</sup>

### 2.2. Basic information

The former Carpenter's Workshop building is a historical building bearing traits of Art Nouveau, built within the premises of the former Katowice Mine in 1909-1910. It is a free-standing, two-story building without a basement, with a rectangular floor plan of 28 x 14 m, masonry, non-plastered. The basic external diameters of the building are:

- Length 29.78 m
- Width 14.28 m
- Height to eaves 7.14 m
- Height to roof ridge 9.77 m
- Footprint 424.25m<sup>2</sup>

The building has not been used since the mine was closed, i.e. since 1999. It is currently undergoing comprehensive revitalization and adaptation for cultural purposes. The planned completion of renovation works is scheduled for July 2016. After the completion of renovation works, the building will comprise one of a complex of buildings of the new Silesian Museum, opened for sightseeing in June 2015. A description of the complex can be found at: <http://www.muzeumlaskie.pl/o-muzeum-muzeum-dzisiaj-1.php>.

### 2.3. Structural and material solutions and technical infrastructure

Exhibition space structural element finishing:

*Walls:*

- external walls finished with full masonry bricks, internal walls insulated with mineral panels comprising autoclaved aerated concrete units intended for insulating historical buildings (Ytong Multipor), plaster-finished on glass fiber mesh.

*Flooring:*

- In passageways and in the access area for the exhibition - floor finishing in the form of industrial parquet (whitened oak), 2.3 cm thick, on elevated technological floor structure.
- **NOTICE:** In the exhibition space - unfinished reinforced concrete floor slab, 10 cm thick, laid on the lower strips of the existing I300 ceiling beams (target flooring with substructure is included in the scope of Exhibition construction). The division of flooring

was specified in appendix 3. The structure of flooring must enable the execution of analogous flooring in the remaining parts (in the form of industrial parquet) should the exhibition be disassembled, both in terms of load-bearing capacity and finishing. After exhibition disassembly, parquet assembly is to be performed only (including standard surface preparation).

*Roof/ceiling:*

- Gable roof, inclined at 35 %, including a skylight equipped with a dimming roller blind, internally finished with plasterboards. Steel structural girders painted RAL 7016 with intumescent paint must be left in the ceiling space.

*Windows:*

- New window carpentry, executed to match the size, shape and divisions of the existing carpentry elements painted RAL 7016.
- Internal wooden sills, whitened oak color, varnished

*Internal installations in the exhibition space:*

- electrical and lighting installation (basic lighting). Exhibition lighting is also included in the scope of this contract
- ICT installation
- comfort ventilation installation
- alarm installation
- fire safety installation

**Notice:** The design must include all of the existing installations, provide the necessary balances (power, heat, ventilation, etc.) to guarantee proper climatic conditions in the exhibition space and to guarantee proper service of all devices. If necessary, the existing installations are to be extended without breaching warranty terms.

*Façade color:*

Due to the historical character of the building, the existing façade color - natural, red brick accompanied by cement-lime plaster panels was maintained, whereas newly implemented items must reflect the existing colors. Black roofing paper, titanium sheet metal gutters and downspouts and sheet metal works. RAL 7016 /anthracite/ window and door carpentry.

*As regarding access for the disabled:*

The building shall be adapted to use by the disabled. An external ramp is leading to the building, a toilet for the disabled was designed on the ground floor. The first floor of the building will be accessible via an internal platform lift. The exhibition is to be accessible to persons on wheelchairs.

*As regarding sanitary requirements:*

The main block of generally accessible toilets for the visitors is designed on the ground floor. The block includes a toilet for the disabled. Mechanical ventilation and air conditioning installations are used in the building, according to the design of sanitary installations.

## 2.4. Plans, projections and visualizations

Design documentation, visualizations and photographs of the Carpenter's Workshop building were enclosed in the following appendices:

Appendix 1 - visualizations and photographs of the Carpenter's Workshop building.

Appendix 2 - design documentation for the Carpenter's Workshop revitalization project.

Appendix 3 - division of flooring

Appendix 4 - basic standards and approvals effective for the contract

## 3. Current conditions for the execution of the subject of contract

### 3.1. General background

The purpose of the contract is to create an exhibition presenting the history of a young, bold and honorable traveler (Tomek Wilmowski, the protagonist of Alfred Szklarski's novels), who lived in the beginning of the 20<sup>th</sup> century, in the exhibition space of the Carpenter's Workshop building. According to the plotline, the boy would travel the world with his father and his friends. His main task (apart from completing various assignments, e.g. for the zoological garden) was to experience cultural diversity and to learn about different customs, nature and history.

The purpose of the project is to support intergenerational interactions and cooperation in learning new abilities, knowledge acquisition and shaping of standpoints related to respecting cultural differences. Our priority is to create an interactive experience of following Tom's tracks. We want our visitors to learn about Alfred Szklarski, the author of the books comprising the main subject of the exhibition.

### 3.2. Thematic background

#### 3.2.1. Alfred Szklarski

Alfred Szklarski was born in 1912 in Chicago, but at the age of fourteen was forced to travel the Atlantic Ocean and go to Poland. This was his farthest journey. He sourced his vast knowledge of geography, nature and ethnography, necessary for describing Tom's adventures, in various written works. From his early childhood, Szklarski remembered the bestial treatment of the black community in the US - he was never able to forget this horrific image. No wonder he would always refer to the rights of the aggrieved, the enslaved and the abused in his accurate novels based on the adventure story convention.

### 3.2.2. Alfred Szklarski's heritage and his creative process

Nearly twenty years have passed since the death of the author of the series of Tom's adventures, the series that shaped the imagination of numerous generations of Poles. Alfred Szklarski was appreciated in his own time, he was a laureate of prestigious literary awards and distinctions. His books were sold in a staggering number of ten million copies. He was also honored after his death - his monument was erected in Katowice, and a permanent exhibition in the form of his home study was created at the Silesian Library. The Alfred Szklarski Festival of the Curious about the World was also organized, and multiple schools in the region were named after the author. Alfred Szklarski is significant for the entire Upper Silesia region, as it is Upper Silesia where he wrote his most important novels, and where he lived for the most part of his life.

The series devoted to the adventures of Tomek Wilmowski was inaugurated in 1957 and comprises the following volumes:

- *Tomek w krainie kangurów [Tomek in the land of the kangaroos] of 1957.*
- *Przygody Tomka na Czarnym Lądzie [Tom's adventures on the Dark Continent] (1958);*
- *Tomek na wojennej ścieżce [Tomek on a warpath] (1959);*
- *Tomek na tropach Yeti [Tomek on the Yeti track] (1961);*
- *Tajemnicza wyprawa Tomka [Mysterious Tom's adventure] (1963);*
- *Tomek wśród łowców głów [Tomek among headhunters] (1965);*
- *Tomek u źródeł Amazonki [Tomek at the sources of the Amazon] (1967);*
- *Tomek w Gran Chaco [Tomek in Gran Chaco] (1987);*

It should be mentioned that Szklarski was also the co-author (together with Krystyna Szklarska - 1974, 1977, 1979) of the *Złoto gór czarnych [Gold of the Black mountains]* trilogy, Poland's essential publication, both among novels and Polish literature of fact (Bobrowski, 2012), including one of the most accurate works devoted to the Indians of North America.

The model of writing he assumed did not entail any travels outside Katowice. Despite this, he would pour detailed knowledge he had acquired by reading specialist foreign literature purchased from his favorite antiquaries or imported from the US with the help of his father onto the pages of his novels. Anna Kropaczek, the daughter of Alfred Szklarski, described his creative process in the following manner:

First, he would choose a continent he wanted Tom to travel to. He would make notes of this continent, the place. He would learn its history. He made all of his notes by hand. This was arduous work. He would sit alone and write everything down. When everything was ready, he would lay on the couch is just stay there for a day or two. I would ask him: why are you lying like that? And he would reply: I'm working on the plotline. And he actually did. After a week, he would get up, go to his desk and start typing. He also worked at the Śląsk Publishing House. After he returned from the publishing house, he would write from 5.00 p.m. to 3.00 a.m. (RMF24, 23.04.2013).



According to this account, Szklarski can be approached as a twentieth-century storyteller immersed in culture, and a researcher with respect to scientific determinations. He was a creator who loved to create and tell stories, but also to teach and educate, using conventions and detailed knowledge in science disciplines for this purpose.

### 3.2.3. Genres and conventions

In his novels devoted to the adventures of Tom, Alfred Szklarski applies two basic rules governing two genres: youth and travel literature. By placing the plot in the two first decades of the twentieth century, he would also emphasize the historical context, surfacing not only in the descriptions of the world, but also in the beliefs, standpoints and values beaconing the protagonists.

Without focusing on genology, we should in this place mention the two basic functions of youth literature, which affect the overall Szklarski's oeuvre: the tutoring and educative function. The author has included abundant geographical, historical and ethnographical information in his fictional storylines. Applying the convention of dialogues between the protagonists, omniscient author descriptions and substantive footnotes, the author attempts at conveying specific knowledge to the readers. Constructing the motivation of the protagonists, their conflicts and their usually fortunate solutions, he conveyed a set of desired standpoints and values which were to shape the merit of the reader.

In terms of content, Szklarski focuses on: geographical details; descriptions of the flora and fauna; history and customs of various cultures of the world; their material, social and symbolic culture; reality of the beginning of the twentieth century; the history of explorations and explorers; the Polonicas - Polish travelers, researchers and events including Polish participation.

When it comes to the beliefs of his protagonists, i.e. such values and features as: honor; patriotism; curiosity of the world; eloquence and erudition; bravery; heroism; responsibility for nature (which, in the beginning of the twentieth century, did not contradict hunting, animal preparation and incarceration); the cult of the mind and science; belief in progress that leads to the liberation of the repressed; "selective" anti-colonialism; tolerance and understanding of everything that is different, interest and respect for whatever is different.

Despite the fact that the protagonists of Szklarski's books believe in the idea of universal progress of humanity and evaluate cultures in terms of development, the author recurrently confronts our views with the views of the natives. He presents various axiological perspectives and emphasizes the arbitrariness of European customs and ways of life.

### 3.2.4. Methods of depicting cultural diversity

The author of the novels devoted to the adventures of Tomek Wilmowski applies the following techniques to present differences between cultures and make them comprehensible (they can serve as inspiration for the narration forms used in the exhibition):

- narration from the point of view of the native;

- analogies and comparisons to our culture, created by the protagonists;
- objectivized descriptions and interpretations in the footnotes, often in non-encyclopedic forms;
- protagonists' commentaries - opinions on local customs, with deep understanding of other models;
- "ethnographic" and "historical" accounts in the form of protagonists' comments or their internal monologues;
- descriptions of interactions between the protagonists and the natives: exchange of gifts, service, trickery, respect, hospitality, conversations, cooperation, language learning;
- explanation of cultural systems by the representatives of these systems;
- interpretation of the customs in dialogues based on the dynamics of relations: naïve convictions of others <-> thorough anthropological and historical analysis.

### 3.2.5. The protagonists: Tomek Wilmowski and friends

Tomek Wilmowski embarked on his first travel in 1902. He was fourteen when a friend of his father's, Jan Smuga, took him on his first great journey. The young protagonist first reached Australia, then he visited other continents: Africa, North America, Central Asia and Southeastern Asia, as well as South America. By learning foreign cultures, he grew - from a young, slightly impulsive boy, interested in the world, to an intelligent and bold man.

During each of its travels, the Tomek was surrounded by a group of tutors and faithful friends:

- Andrzej Wilmowski - Tomek's father, geography teacher engaged in secret activity as well; his knowledge of world cultures and their geographical environments is vast; he is a composed, understanding man, who allows Tomek to gather his own experiences.
- Tadeusz Nowicki - boatswain, further advanced to captain; Tomek's friend, and their relation is primarily based on the exchange of minor caustic remarks; Nowicki does not have extensive knowledge of foreign cultures, he often uses his colloquial, appraising categories for evaluating phenomena and events he does not understand; he sometimes incorrectly interprets the behaviors of others, as he is not familiar with their cultural code; he is a firm believer of commonsense view of the world while remaining sensitive to any manifestations of captivation.
- Jan Smuga - a friend of Tomek's and his father's, the most mysterious of all protagonists; an authoritative figure; experienced hunter of wild animals and a traveler who reached all continents apart from the Antarctica; a person familiar with other cultures - one of his famous stories is about a white man speaking tam-tam; he mastered the art of hunting and survival.
- Sally Allan - we meet her when she is a twelve-year-old girl; with time, she becomes the object of Tomek's infatuation, to finally marry him in dramatic circumstances; with time, she becomes an equal partner of the travels - a specialist in taxidermy; since her earliest years, she initiated major actions (e.g. for setting up a "conspiracy" and releasing the Indian chief

in *Tomek na wojennej ścieżce* [*Tom on a warpath*]); she engages in partnership contacts with native cultures (e.g. in New Guinea, she is involved in medical aid).

Another important category of protagonists are local “guides”, without whom none of the travels would have taken place. This way we meet Sambo in Africa - a released slave from the Galla tribe, Kisumo - a Maasai chief, or Mototo - a Pigmy warrior. In North America, the supporting protagonists include, the Red Eagle, the Black Lightning, chief Long Eyes and his daughter, Rocky Flower. *Tomek wśród łowców głów* [*Tomek among headhunters*] also includes some interesting characters, Tawade Eleli Kogle to mention one.

Each of the aforementioned characters has well-outlined attributes, sometimes stereotypically drawn, applying certain “noble savage” or “kind-hearted companion” clichés. However, other times, they are well thought-out structures evading explicit interpretation.

### 3.2.6. Tomek and the cultures of the world

During his travels, Tomek reached five continents. On each of them, he met the representatives of native cultures, entering into more or less intensive interactions with them. Alfred Szklarski would often meticulously reflect the cultural reality of particular tribes. One of his best-described peoples include (according to the ethnical criterion): the Maasai people, the Ganda people, the Pygmy people, the Navajo people, the Apache people, the Zuni people, Hindu people, Kashmir people, the Kandjut people, the Uyghurs, Tibetans, the Nanai people, the Buryats, the Yakuts, the Tawade people, The Cubeo people, the Yahua people, the Campi people.

The diversity of the cultures selected by Szklarski is proven by the fact that his novels feature:

- hunter-gatherer cultures, pastoral cultures, farmer cultures (an economic system criterion);
- nomad and settled cultures (lifestyle criterion);
- cultures of various religious and outlook systems (Christianity, Islam, Buddhism, shamanism, animism);
- patri- and matri-linear cultures with various affinity systems and residence types.

Szklarski also focuses on:

- material culture (outfits and their symbols, construction, weaponry, tools and everyday use items, food and its processing methods, etc.);
- social culture (power relations, social roles, social bonds, social structure, norms characteristic to a given community; behavioral models - ideal and actual);
- symbolic culture (the axiology of a given culture, beliefs and convictions, forms of magical thinking, products of widely understood artistic culture - painting, dance, etc.).

### 3.3. Assumptions for the exhibition

#### 3.3.1. Vision, idea, subject of the exhibition

*Vision:* to design and construct a family-friendly educative exhibition.

*Idea:* each culture is unique and should be treated with respect.

*Subject:* the adventures of Tomek Wilmowski and a discovery of native cultures as an educative experience.

#### 3.3.2. Goals

*General goal:* To build an exhibition to shape standpoints of respect and understanding of other cultures and their customs using esthetically cohesive tools for intergenerational education.

*Educative goals:*

- to present the cultural diversity of the world;
- to present the series of books by Alfred Szklarski, devoted to the adventures of Tomek Wilmowski;
- to teach how to gather and compare knowledge of life, beliefs and practices of the representatives of various cultures;
- to develop abilities allowing for understanding “what is different”;
- to strengthen intergenerational human relations;
- to teach respect for other cultures;
- to encourage young visitors to read books.

*Goals pertaining to form:*

- to create a family-friendly exhibition basing on the idea of intergenerational education;
- to design a space adapted to the needs of people of every age (including the handicapped and the disabled);
- to create an immersive, interactive, esthetically cohesive experience of value for the pre-established age groups;
- to design a place which accommodates up to thirty visitors in one round; sightseeing time: approx. 60 minutes.

#### 3.3.3. Recipients

Our most important recipient are families. Therefore, both the space and the content of the exhibition should be adapted to at least three groups of recipients: seniors, parents and children. It should be emphasized that under no circumstances should the exhibition be “child-centric”. The main purpose is to build an exhibition to respond to the esthetic, intellectual and practical needs of all members of the families visiting the museum with their children. The exhibition is to create a new

model of museum visit, in which people from various age groups cooperate, share their knowledge, abilities and interests. Therefore, the style, content and equipment of the exhibition should facilitate family interactions and the process of learning.

The key aspect of the exhibition is to design interactive media intended for children from various age groups (4-6, 7-9, 10-12 years) and combine various activities created for them. At the same time, the exhibition is to inspire adults - thanks to interesting information they will be able to learn through the exhibition and by encouraging their assistance to the youth.

We believe that parents and grandparents are the “repositories” of tradition and specialists in their culture - the practitioners of everyday life, the experts in rituals and holidays, the specialists in affiliation terminology and the functions of various social roles, the conservators of norms and values, storytellers preserving both family stories and the myths of their culture. They can also serve as storytellers and guides, presenting their own culture and comparing it to distant cultures.

As regarding the knowledge of Alfred Szklarski’s books, one must remember that they are close to the generation of our parents, who were raised on Tom’s adventures. The younger generation must be additionally introduced to the context of the exhibition and familiarized with the writer and his works.

#### 3.3.4. Basic guidelines

##### *Intergenerational character:*

Each family member is to be involved in the discovery of the exhibition - planned activities should be dedicated to two or more generations. The visitors are to be provided with proper conditions of cooperation and shared interaction with educative media. What is more, the display devices are to be designed in a manner that they can be used by at least several people at once (min. 2). A family is our basic recipient group, but we want the exhibition to encourage all sorts of new intergenerational contacts. Attention must however be paid to the distinct educative needs of children and youth in the following age groups: 4-6, 7-9, 10-12.

##### *Exhibition that takes one on a journey and engages all senses:*

The exhibition is to include an exciting narrative to stimulate the imagination of children and their tutors. It is important that our visitors learn new contents together. This is to be achieved by rendering various forms of interaction, games and challenges (from roleplay to object manipulation and physical games).

The media which are to activate all senses should serve as tools for teaching selected abilities and for supplying extraordinary experiences. Therefore, we do not wish to present the main narrative line in a literal manner. It is important for us to produce a space design to reinforce creativity, where the history constituting the root of the exhibition is told by various interactions: with images, odors, textures and sounds. Therefore, high-class exhibition space design which is harmoniously integrated with the Carpenter’s Workshop building is very important to us.

*Exhibition discussing what is different through what is close:*

The families visiting the exhibition are to be able to confront their everyday experience and knowledge of their own culture with the content of the exhibition. This should teach them an empathic and understanding approach to the representatives of other communities. Essential reference points can be built by personal accounts and related places and items - a house, a room, a yard, games, toys, food, family and family traditions, stories of relatives, home collections, holiday trips. The sense of rooting, the appreciation of cultural heritage values and respect for customs is intrinsic of this day-to-day level.

*Exhibition which encourages further discoveries:*

The exhibition is to inspire children and parents to gain knowledge of their own culture and to read Alfred Szklarski's books after visiting the museum. We would like to apply the "islands of imagination" concept, according to which children develop their interests thanks to their fascinations with specific narratives and the possibility to learn in interaction with their relatives. Apart from such fascination, we would like to provide the basic tools and show the places where one can search further.

### 3.4. Framework exhibition concept

#### 3.4.1. The story

Tomek Wilmowski vanishes. No one knows what happened or where Tom is. His friends are worried and are looking for someone who would help them in the search. The only hope is another family of travelers - the visiting family. They are therefore provided with "professional" equipment (in the form of an activity pack handed out to each group of visitors, e.g. in the form of a traveler's backpack containing an activity sheet and objects for additional interaction of the group with the exhibition and initiating intergenerational cooperation) and receive information that Tom's whereabouts can be retrieved from Alfred Szklarski's books and from the exhibition space. To learn these whereabouts, one has to embark on a far journey. In the end of the visit, the group of visitors will have sufficient trails to solve the riddle.

The narrative is to be constructed according to the structure of adventure books and should repeat their basic motifs. Such a concept guarantees the clarity of the plot and can be also treated as a method of building a literary convention in the language of the exhibition. The basic sequence is the following: 1) preparation for the journey; 2) adventures and experience gathering; 3) return home / reaching the destination. Each point of the narrative should be related to one of the main subjects of the exhibition.

#### 3.4.2. Narrative: motifs - subjects

Narrative	Motif	Subjects
Preparation for the journey	Time and space	<ul style="list-style-type: none"> <li>- continents and their specification;</li> <li>- history of the means of transport;</li> <li>- famous journeys and the European tradition of traveling;</li> <li>- Tomek Wilmowski travels;</li> <li>- Alfred Szklarski - the writer;</li> </ul>
Adventures	Familiar and foreign	<ul style="list-style-type: none"> <li>- description of various cultures Tom learned in the course of his adventures (issues related to material, social and symbolic culture), e.g. the Aboriginal people (Australia), the Maasai people (Africa), the Apache people (North America), the Yakuts (Asia), the Cubeo Indians (South America) - Tom's adventures;</li> </ul>
Return home and completion of the mission	Respect for what is different and understanding of the world's cultural diversity	<ul style="list-style-type: none"> <li>- Tom's and his friends' standpoint on other cultures;</li> <li>- the advantages and disadvantages of traveling;</li> <li>- the idea of responsible travel;</li> <li>- the culture of the visitors as equally interesting to the cultures presented at the exhibition;</li> <li>- Alfred Szklarski remembrance.</li> </ul>

#### 3.4.3. Organization of the narrative

The main principle ordering the exhibition in the part referring to Tom's adventures is the permanent focus (at a given station) on one, specific culture. Syncretic summarizations or generalizations (e.g. "Indians") are to be avoided. Each culture should be placed within a specific geographic and natural context.

In terms of the narrative, each module should contain one element related to the main riddle related to Tom disappearing. It needs not be central for the understanding of a given zone, but must clearly illustrate that the exhibition is inspired by the literary works of Alfred Szklarski.

In terms of thematic solutions, the “familiar-foreign” theme should be developed by issued related to how various cultures solve invariant cultural problems. This will allow for building a story of difference while remaining within the circle of the closest experiences of the families and their children. The proposed areas include:

- Everyday life: the home, the role and the shape of the basic corporate groups (including family), education, science, play, work, cuisine, hygiene;
- Celebrative time: customs, traditions, holidays, rituals, symbols, cultural dramas;
- Cosmologies and cultural images: myths and legends, beliefs, religious systems, perception of time and space;
- Ecologies: relations with nature, the role of animals and plants, environmental conditions, the economy (including tools and means of transport);
- Innovations and the most important adaptations in a given culture: inventions, discoveries, optimal or original solutions;
- Esthetic phenomena: music, dance, painting, sculpture, architecture, etc.
- Cultural personality: human person concepts, personal models, “good life” models, appreciated values;

We should remember that cultures form integrated systems, in which various aspects of their life are interconnected in a specific, sometimes ambiguous ways, and the material layer intersperses with the social and symbolic layer. Thanks to this, it is sometimes sufficient to select one of the aforementioned motifs as the central profile in a given zone and to build a contextual story about culture around it.

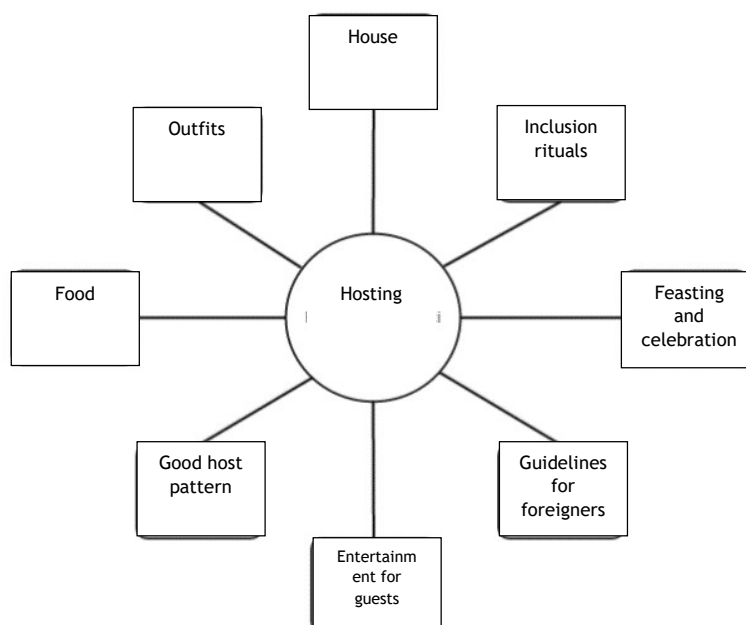


Diagram 1. Contextual narrative around one, central motif

#### 3.4.4. Narrative: proposed specification of motifs and themes

Narrative	Place / culture / motif	Subject
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Preparation for the journey	Coal ship / journey / time and space	<ul style="list-style-type: none"> <li>- continents and their description;</li> <li>- history of the means of transport;</li> <li>- Tomek Wilmowski travels;</li> <li>- Alfred Szklarski - the writer;</li> <li>- famous journeys and the European tradition of traveling;</li> </ul>
Adventures	The Maasai people / everyday life	<ul style="list-style-type: none"> <li>- the house and its functions, the structure of the village;</li> <li>- family, education, teaching;</li> <li>- hunting, farming and household customs;</li> <li>- esthetic phenomena and rituals: music and dance;</li> <li>- good life models, ethos of the warrior and cattle breeder;</li> </ul>
	The Cubeo Indians / culture and nature	<ul style="list-style-type: none"> <li>- forests of the Amazon: plants, animals, people;</li> <li>- life of the Cubeo Indians - close to nature;</li> <li>- myths, legends and beliefs;</li> <li>- shaman and hunter functions;</li> </ul>
	The Aboriginal people / beliefs	<ul style="list-style-type: none"> <li>- cosmology: history of the beginning of the world, <i>dream time</i>, totemism;</li> <li>- the concept of person, kinship and social bonds;</li> <li>- ceremonies;</li> </ul>

		-esthetic phenomena: music, painting;
	The Yakuts / hospitality	<ul style="list-style-type: none"> <li>- the household and home appliances;</li> <li>- the kitchen;</li> <li>- the hosts and guests;</li> <li>- hosting models;</li> <li>- etiquette;</li> <li>- feasts and celebration;</li> </ul>
	The Apache Indians / symbols and marks	<ul style="list-style-type: none"> <li>- rituals, e.g. the Rising Sun Ceremony;</li> <li>- symbols and meanings in painting, myths, rituals and architecture;</li> <li>- non-verbal communication methods: body language, smoke signals;</li> <li>- verbal communication: mutual understanding, the problem of translating meanings;</li> </ul>
Return home and completion of the mission	Respect for what is different and understanding of the meaning of the world's cultural diversity	<ul style="list-style-type: none"> <li>- Tom's and his friends' standpoint on other cultures;</li> <li>- Alfred Szklarski remembrance</li> <li>- the advantages and disadvantages of traveling;</li> <li>- the idea of responsible travel;</li> <li>- the culture of the visitors as equally interesting to the cultures presented at the exhibition;</li> </ul>

Only several original museum items can be displayed at the exhibition in non-standard cabinets. *On Tom's Track* is to stimulate involvement and inspire a clear narrative, as well as to confront the ideas of other cultures with actual knowledge of these cultures. We are not so much interested in focusing on artifacts themselves, but on offering the visitors an immersive experience of traveling. At the same time, we know that the possibility of reading fragments of reprints of the first Alfred Szklarski publications, which could be displayed in the exhibition space and used as active educative elements could be a major attraction.

### 3.4.5. Specification of cultural diversity education for younger age groups

4-5 years	6-7 years	8-9 years	10-12 years
Understanding of cultural diversity			
Egocentrism, no differentiation of perspectives, others are no different to me	Subjectivism, diversified perspective, recognition of the diversity and differences in others' standpoints; perception of differences, but no understanding of valuation which the society attributed to these differences	Reflective perspective based on the mutuality of standpoints; awareness of how others can perceive our emotions and feelings	"Third person singular"; perspective based on the understanding of mutuality of relations ( <i>mutual perspective</i> ); ability to understand the neutral perspective

Subjects of interest			
Me, my family, my neighbors; people helping one another, holidays, summer holidays, celebrations; transport (cars, trucks, trains, airplanes); houses; animals	The social studies content must be linked here and now; the child is starting to understand the past if it is related to the present; family; friends; school; works performed by people; differences between people; things we are good at; cultural diversity	Our country and the world; “a long time ago” and “far, far away” - not both at the same time; the history of culture, cultural and ethnic diversity; neighborhood, community; social institutions; people, traditions, community practices from various parts of the world	Current events; social science; history is very interesting when it is associated with issues that are recognized as important by children; geography; migrations; industry; local stories; social justice; popular culture and material culture
Learning through activity			
Likes when someone reads to them and likes to “read” picture books - labels frequently used or seen objects; needs confirmation; music and rhythm; repetition of patterns	Likes to ask questions; likes new games and ideas; learns best through discovery; appreciates the process, particularly in group - even more than its product; needs limitations - must complete tasks	Loves group games - attracted to same-sex activities, but easily lets go of the rules and needs limits; likes to use “authentic” items when role-playing; perceives gender discrepancies; likes to manipulate objects	Can undertake more precise activities; art becomes an important means of focusing on reading and mathematics; interested in games, puzzles, tests; starting to develop abstract thinking capacity

(From: E. Reich Rawson, *Using Developmental Frameworks*, in: *Connecting Kids to History with Museum Exhibition*, ed. D. Lynn McRainey, J. Russick, Left Coast Press, Walnut Creek 2010).

## 4. Functional properties

The purpose of the subject project is to create an educative exhibition titled *On Tom's track* in the space of the revitalized Carpenter's Workshop building at the Silesian Museum. An exhibition which strengthens intergenerational, family interactions and cooperation in learning abilities, gaining knowledge and shaping standpoints related to respect for cultural diversity is to be built. The priority is to create an interactive experience of following Tom's tracks. The museum visitors should learn about: Alfred Szklarski, the protagonists of his books and the cultures he wrote about.

The works executed should be carried out with the use of durable, child-friendly and certified materials. The exhibition is to be designed and executed in a manner that guarantees full observance of all effective safety, esthetic requirements as well as requirements regarding the maintenance of proper technical condition. When assessing materials, the Principal shall base on the guidelines of the reference documents included in appendix 4.

The room intended for the exhibition is to be adapted, arranged and fit-out with equipment, devices, installations and interactive media allowing for completing the goals formulated in these guidelines, in the design and guaranteeing full service for exhibition and educative purposes.

The division of exhibition space into thematic blocks will be performed according to the assumptions of the exhibition script (concept), enclosed to the proposal drawn up on the basis of the contract subject description, considering all of the Principal's guidelines modifying the exhibition script (concept).

## 5. Description of Principal's requirements regarding the subject of contract

### 5.1. Basic requirements

- a) The scope of the entire contract assumes the development of a detailed script, multidisciplinary detailed design documentation and the completion of the Exhibition in the Carpenter's Workshop building at the Silesian Museum.
- b) The Principal requires that the aforementioned documentation was drawn up on the basis of documents enclosed by the Principal, and particularly in line with the contract subject description.
- c) The Principal requires that products admitted for marketing and general use in the construction industry only were used for designing. All of the necessary elements must be executed according to effective standards and must consider any requirements regarding material quality in spaces intended for children, and must hold pertinent licenses to be obtained under Polish or EU regulations.
- d) The Principal requires that the warranty period covering the exhibition was 5 years.

## 5.2. Requirements for design works

### 5.2.1. Scope of design works

Development of complete detailed design documentation required for the construction and launch of the Exhibition, including in particular:

- a) a detailed script of the exhibition, including a description, a plan and content and visualization of the sightseeing route and successive display stations, basing on substantive, technical and visual guidelines set forth in the contract subject description;
- b) complete interior-architectural design including:
  - plans, sections and views of rooms, including precise dimensions and distribution of furniture, equipment, devices and interactive media in the room, required for ensuring clear and comprehensible presentation of the assumptions of the design;
  - detailed guidelines for set design-visual solutions;
  - detailed guidelines for material and color arrangement solutions, considering the need to use child-friendly and certified materials;
  - detail drawings;
  - technical drawings and descriptions, bills of quantities;
  - bills of materials;
  - guidelines for adopted solutions in terms of primary, emergency lighting, public address system, power supply points for devices used in the exhibition;
  - detailed guidelines for interactive educative media (including those providing *experience design* and referring to a cohesive strategy of satisfactory design, enriching the experience of the visitors in terms of the senses used and activities performed);
  - internal visual identification system corresponding to the Museum identification system, but adapted to the specific character of the exhibition and the intergenerational recipient;
  - the frequency monitoring system that must be an automated solution using a software application that gathers and compares data on a daily, monthly and yearly basis. The software must be straightforward and user-friendly.
- c) detailed designs of exhibition systems: multimedia, PA, lighting, other technologies, including interactive educative displays (including a report on the means used to provide knowledge, abilities and standpoints for the visitors, including information of the method of profiling data in terms of target visitor groups);
- d) a design of integrated exhibition service system allowing for overseeing and controlling the functioning of particular subsystems and the system as a whole (multimedia monitoring, PA control, lighting control - dimming, turning on/off, interactive display monitoring, other technologies); the system is to guarantee maintenance-free exhibition activation and shutdown according to a pre-established calendar schedule as well as the programming of the following sequences: cleaning, night, day sightseeing, night sightseeing, the system is to

notify of the level of wear of particular elements of the exhibition, such as lamps in projectors; the system is to enable the gathering of information on attendance for particular interactive devices; System operation should be simplified to the maximum and should be performed from the level of Internet browser at the technical service or building service computer stations. For the purposes of managing exhibition operation, a dedicated application should be provided to control the graphic interface. The application should be installed on a wireless tablet provided by the Contractor as part of the contract; the System should allow for activating and disabling particular multimedia stations; the System should allow for managing presentation files, and every application should be started by the exhibition management system.

- e) technical documentation for the media should contain at least:
  - a description of the design and operation, and a manual for each station;
  - original instruction manuals for the devices included in particular modules with interactive media;
  - a description of procedures for periodic maintenance and repairs to be performed by the Principal without assistance;
  - guidelines for cleaning and maintenance for every station;
  - a description of control activities in terms of maintaining a high security level;
  - a description including the following information: target age groups for a given station; the knowledge, abilities and standpoints which are to be shaped by a given station; the methods which are to be applied to pass certain knowledge, abilities and standpoints to selected groups of recipients; the method of supporting intergenerational education
- f) block diagrams of electrical and electronic circuits for electrically powered exhibits;
- g) a cost estimate for the completion of the exhibition;
- h) exhibition operation and maintenance costs in an annual breakdown, considering and listing particular exhibition operation and maintenance costs in non-deteriorated condition; the contractor is obligated to provide a document listing all of the exhibition operation and maintenance costs, in particular in a breakdown into energy costs (the contractor shall calculate energy consumption on the basis of manufacturer's data in the day variant - i.e. with the exhibition open for sightseeing from 10.00 a.m. to 8.00 p.m.), a list of short-lived materials, periodic maintenance activities, consumables;
- i) obtaining all of the required decisions, approvals, permits, assessments, notifications, admissions, certificates, etc. required for completing the design documentation and the works;
- j) developing as-built documentation in 3 hard copies and in the electronic form (editable and pdf). The documentation will be considered in the contract acceptance procedure.

#### 5.2.2. General requirements for design works

- a) The Contractor is obligated to supply design documentation considering the specification set forth in the contract subject description and the factual state of the building, as resulting from the revitalization works conducted. The documentation must be approved by the Principal during working meetings held in the course of the design process.
- b) Any Exhibition documentation developed by the Contractor shall be consulted on in progress with the Principal in terms of esthetical, interior, functional solutions, materials used, and the completion of educative and intergenerational assumptions. Only after having received Principal's approval of the design concept will the Contractor be allowed to proceed with further works.
- c) In the design process and at every further stage of works, the Contractor shall be obligated to guarantee the observance of conditions and requirements regarding fire safety.
- d) In the design process and at every further stage of works, the Contractor shall be obligated to guarantee the observance of conditions and regulations regarding the health, safety and protection of children from the age of 4. The exhibition must be designed and constructed using materials and products and in a manner that they do not pose any threat to the health and safety of its users. The Contractor is obligated to provide pertinent certificates admitting particular elements of the exhibition to use by children from the age of 4.
- e) The documentation shall be drawn up in Polish in accordance with applicable regulations, standards and construction practice, and should be affixed with a clause stating the completeness and suitability for the purpose it is intended for.
- f) The technical documentation, including the detailed design, should be drawn up in a manner that allows its review by the Principal and should be sufficiently detailed to allow for the execution of all works thereunder. The Contractor shall be obligated to detail the documentation if the Principal is not able to review its particular solutions.
- g) The Designs shall contain optimal functional, structural, material and cost solutions and all of the necessary detail drawings with precise descriptions.
- h) The design documentation must be cohesive and coordinated in all disciplines. It should also contain an interdisciplinary coordination report signed by the designers from all disciplines participating in the performance of the subject of contract.
- i) The design documentation shall be drawn up in 4 hard copies and in the electronic form in 2 copies (editable version and pdf format). The design documentation should be provided with a list of studies included and a written statement that the list is complete, drawn up with due diligence and serves the purpose it was intended for.
- j) Should any modifications be required after the design documentation is approved, the Contractor shall draw up an amended version of the documentation.
- k) Before commencing design works, the dimensions in the building must be checked in progress.
- l) The Contractor shall transfer onto the Principal the copyrights, including the right to dispose of derivative rights, including the licenses required to dispose of the Design according to its intended purpose, as well as related rights regarding the subject of this contract, including



the necessary license rights to the materials used. The contract draft contains the details for the transfer of copyrights.

### 5.2.3. Detailed guidelines for the interior-architectural layer and the organization and presentation of content

a) Exhibition interior design shall be:

- optimized in terms of intergenerational education;
- stylistically cohesive, maintaining balance between esthetic values and the educative function;
- adapted to the Carpenter's Workshop building space and recognizing its architecture and specific character;
- inspired by the esthetic of the cultures visited by the protagonist of Alfred Szklarski's books, but not copying them;
- basing on interactive (this does not mean solely multimedia) stations to pass well-selected knowledge, develop various abilities in various age groups, and teach a standpoint of tolerance and respect for what is different;
- promoting a standpoint of tolerance for what is different in a suitable manner for specific age groups;
- executed out of good-quality materials which will not be prone to premature wear during operation. Selection of materials should be performed with a conviction that state of the art technologies and their related materials conceal the work of human hands. The exhibition is to remind everyone that such materials as wood and related craftsmanship has been important to many cultures of the world. At the same time, selecting the materials, the Contractor should consider the issue of hygiene and certificates admitting display elements to use by children.
- Engaging multiple senses and doing this in various ways. One of the essential aspects of exhibition design should be sound reconstructing the audio landscape of particular environments inhabited by the representatives of the visited cultures. Acoustic elements are to activate the sense of hearing and include it in the cognitive process (remembering however about the small size of the exhibition space); all audio systems must also allow for integrated volume manipulation and must allow for muting.
- Interactive, but not dominated by multimedia solutions. Multimedia should be incorporated into the set design, complementing it and developing arrangement and interactive ideas instead of constitute their basis;

b) educative media:

- must be designed and constructed according to the principles of ergonomics and functionality, connected with a cohesive esthetic concept;
- are to be created with dedication to the presented content regarding cultures of the world and the adventures of Tomek Wilmowski: multimedia must be integrated with the set design;

- are to be interesting and exciting, featuring varying service ability levels. Therefore, they are to minimize the possibility of making errors during interaction and their possible consequences;
  - are to be easy to use and intuitive both for children and for adults. Therefore, they are to be composed of simple and intuitive, foolproof elements. They must not require extensive life knowledge from the visitors.
  - are to be designed in consideration of the preferences, abilities and limitations of particular age groups. They should allow for interactions based on the engagement of various senses and various abilities of the visitors;
  - should consider the physical conditions of the children, their parents, grandparents, the handicapped (e.g. should be placed at adequate height, taking hand range and motor abilities of various groups into account);
  - should respond to the cognitive needs and competences of cooperating adults, seniors and, what is most important, children in the 4-6, 7-9, 10-12 age groups;
- c) their design and construction should consider selected “universal design” principles, the purpose of which is e.g. to ensure as highest accessibility of the exhibition for the representatives of various age groups, for people with reduced functionality and for the handicapped as possible, to make sure as many people as possible can take advantage of the exhibition resources;
- d) designs of the media and particular, planned interaction forms must consider the documentation containing a description of the target age group description for a given action; information on the knowledge and abilities they are to shape; the means to be used to pass this knowledge, abilities and standpoints to selected groups of recipients; the method of supporting intergenerational education;
- e) the technical documentation for the display items must contain at least:
- a description of the design and operation, as well as manual for each station;
  - original instruction manuals for the devices included in particular modules with interactive media;
  - a description of procedures for periodic maintenance and repairs to be performed by the Principal without assistance;
  - guidelines for cleaning and maintenance for every station;
  - a description of control activities in terms of maintaining a high security level;
  - block diagrams of electrical and electronic circuits for electrically powered exhibits.
- f) organization of content:
- the basic principle of shaping the message of the exhibition: the content of the exhibition, the narrative and knowledge must be incorporated in various forms of experience and interaction: written text (labels, brochures, texts), images (photographs, drawings, animations, etc.), sounds, objects one can touch and use, and devices one can manipulate,

games one can play. These must entail a deliberate strategy of creating a multisensory, interactive experience.

- particular attention must be paid to one of the basic methods of passing knowledge and messages by museum exhibitions - to labels, captions, instructions and texts enclosed to possible educative materials, such as worksheet. In the exhibition, these cannot constitute the basic educative convention, but must be one of many conventions applied. Their function is also to instruct, shape stories, encourage action and supply additional information related to the cultural context and the environment of the visited ethnic groups or Alfred Szklarski's works.
- When constructing the media intended for written forms, attention must be paid to the fact that intergenerational groups shall be the target group. Therefore, the following basic rules must be adhered to:
  - the Contractor must recognize that a part of the texts will be created to provoke group reading, and a part of them will be dedicated to the parents who will then help their children by answering substantive and technical questions. Both forms can stimulate interaction and encourage conversation, which is the basis of family learning.
  - brief, substantive descriptions will be composed as aid to the parents in explaining various issues to the children.
  - texts are to comprise simple, clear, large fonts according to the *large print* standard for the visually impaired;
  - messages are to be composed at several text organization levels - from legible, large headlines, to smaller, but equally clear descriptions;
  - large volumes of light are to be used - including vast margins around texts. A single line is to include one sentence or sentences are to be broken down into logical chunks.
  - in the case of labels - text is to be placed next to the item it refers to, clearly communicating the relation to this item with size, color, lighting, etc.
  - texts will be used as part of various functions: inviting, experience-personalizing, focusing attention on the visitor, descriptive, narrating, anticipating and replying to visitor's questions, explanatory, persuading (to make the reader see something in a new light or try something new), instructing, encouraging conversation.

g) *Experience design:*

- the "experience design" method serves for building balance between various forms of interaction and stimuli provided by the exhibition.
- the Contractor is to create a suitable sequence interspersing more interactive participation spaces and media with more passive (including content to be read, viewed - by experiencing the emotions of a viewer, not an actor), to prevent the exhibition from generating too many stimuli. Therefore, a map of experiences should be created and should analyze whether exploration, discovery, team work, play, use of one's imagination, role-playing, etc. will be paying the leading roles in given areas.

- similarly to the interaction convention, “balancing” should apply to the stimulation of particular senses by particular media (helping in the assessment of exhibition value for people suffering from various dysfunctions).
  - when working on “experience design”, attention must be paid to the fact that it should facilitate the learning of the basic abilities, knowledge and standpoints acquired by various age groups and disabled recipients.
  - display item tests are recommended to check the adequacy of the experience they offer in terms of the content and the intended recipient group; such tests shall be performed by the Contractor in the presence of the Principal; the Principal shall be also entitled to perform tests of display item prototypes with the participation of selected testing groups at every contract performance stage.
- h) An *activity pack* should be designed and should include a set of materials to facilitate intergenerational cooperation, handed out to every group of visitors in the visitor center.
- i) The content, i.e. all written texts (printouts, content and audio recordings) should be available in two language versions: Polish and English.

### 5.3. Construction and installation works

5.3.1. The contract stipulates the execution of the necessary works to launch the exhibition - on the basis of design documentation developed by the Contractor and approved by the Principal, including:

- a) execution and testing of prototypes of interactive educative displays and other media used to pass specific knowledge, abilities and competences; the prototypes will be tested to verify:
- durability of mechanisms and moving elements - the test will consist on multiple (at least 20-time) use of the display item, applying above-standard force (exceeding the normal force required to use the display item more than 5 times)
  - surface resistance to abrasion - the test will consist in a physical check of the prototype by simulating actual element use
  - surface resistance to scratching - the test will consist in a physical check of the prototype by simulating actual element use
  - surface resistance to soiling - the test will consist in a physical check of the prototype by simulating actual element use
- b) execution and assembly of the exhibition structures fixed to the building structure: exhibition systems, LED museum lighting, permanent fit-out elements, fixed and movable visual elements, visual information systems, interactive educative stations, etc.;
- c) execution and installation of non-standard and moveable equipment, such as visitor traffic center (e.g. *activity pack*);

- d) supply of integrated multimedia systems (including the programming, execution of medium content, such as graphic elements, sound, film, etc.; delivery and assembly of multimedia devices);
- e) installation of equipment adapting museum space to the needs of people with motility, sight and hearing impairments.
- f) When executing any works, the Contractor shall adhere to the instructions of material manufacturers as well as effective regulations, including those which have undergone modification or update. In the presence of any standards, certificates, manuals, technical approvals, approval certifications which are not listed in the design documentation and technical specifications, remaining effective nonetheless, the Contractor will be also obligated to adhere to them. The basic standards and approvals effective for the performance of the contract are included in appendix 4.
- g) In the execution of works, the Contractor shall be obligated to have any changes implemented in the design approved by the Principal. Furthermore, the Contractor shall be obligated to run an inventory and as-built documentation, and to update this documentation after the works are completed.
- h) The Contractor shall be obligated to supply samples and patterns of articular materials to the Principal for approval, which shall not limit the Contractor's liability for the quality and legitimacy of the materials used. This shall particularly refer to materials used to execute the set design. At the Principal's request, the Contractor shall be obligated to provide material and color samples to allow for the selection of a specific solution considering the actual light conditions in the Exhibition space, as well as any other factors which can affect the final selection of Exhibition design elements. The materials shall be tested to verify:
  - durability of mechanisms and moving elements - the test will consist on multiple (at least 20-time) use of the display item, applying above-standard force (exceeding the normal force required to use the display item more than 5 times)
  - surface resistance to abrasion - the test will consist in a physical check of the prototype by simulating actual element use
  - surface resistance to scratching - the test will consist in a physical check of the prototype by simulating actual element use
  - surface resistance to soiling - the test will consist in a physical check of the prototype by simulating actual element use
- i) Delivery of educational aids (e.g. activity pack elements) in an amount which allows for ongoing replacement of worn/destroyed elements, that is at least 50 complete sets of educational aids undergoing regular wear).
- j) Delivery of short-lived materials in an amount which allows for their use for 6 months.
- k) Delivery of consumables (light sources, lamps for projectors, etc.) for an exhibition operation period of 12 months.

#### 5.3.2. Requirements for exhibition safety

- a) All display items must be designed and constructed to guarantee full safety of the people using them (we should remember that the exhibition is to be available for children from the age of 4), the people remaining in their vicinity and the people performing service and maintenance operations. This condition shall also apply to foreseeable instances of use of elements of interactive stations against the instruction manual by the visitors.
- b) The exhibition must comply with all and any Polish and European health and safety standards, which may apply to it. As a confirmation of compliance of the aforementioned conditions, the Contractor shall be obligated to enclose to each exhibition element and to each set design element a suitable statement or a certificate by a pertinent institution. The Contractor shall be obligated to issue a statement for the Principal, stating that the requirements stipulated by pertinent regulations have been fulfilled. The Principal shall be entitled to verify the compliance of the exhibition with these guidelines, also by involving suitable research institutes. The basic reference documents are included in appendix 4.
- c) The materials entering into contact with the visitors must hold applicable hygiene certificates.
- d) The design and structure of the exhibition must take into account the permissible building ceiling loads.

#### 5.3.3. Requirements for exhibition durability

- a) All media, set design elements and educational aids must be durable, resistant to visitor interference (including damage resulting from random use by children from the age of 4) and must be safe for them - the exhibition and particular exhibition items must remain fully operational and visually attractive for a period of at least 5 years, assuming everyday use for 10 hours a day, assuming 1800 visitors a week for 310 days a year.
- b) The stations must be immune to interference against the manuals, including interference causing dents, stains, damages of mechanical elements.
- c) All corners at 0 to 120 cm from ground level should be rounded to a radius of min. 5 mm.
- d) Easy access to control elements for service personnel must be provided should the item undergo regular wear or require replacement or damage. At the same time, this access must be blocked for the visitors.

#### 5.3.4. Requirements for maintenance and service

- a) Interactive medium surfaces should be resistant to washing using typical cleaning solutions and should display resistance whenever summary cleaning with aggressive chemical solutions is necessary (washing off chewing gum, pen or marker stains, etc.).
- b) Cleaning of interactive media and set design elements, as well as the basic scope of maintenance, should be within the Principal's capacity (unobstructed access to windows, air

conditioners and elements located above the exhibition, such as bulbs is desired) and should preferably be performed without contracting external companies.

- c) Interactive media should allow for easy technical service and should allow for repairs by the Principal's technical personnel holding basic competences and should preferably be performed without contracting external companies. The Contractor shall train the personnel in the basic service and control procedures. This training will be attended by 10 people.
- d) Basic repairs and inspections should be performed with the use of typical tools and gauges. If special tools, devices or software are required, they will be provided with the media.
- e) The design of particular modules and interactive display items should ensure the accessibility of all elements and subassemblies covered with periodical technical maintenance or replacement to avoid complete disassembly or dislocation of particular stations. Service doors can serve as a useful solution here.
- f) The design and construction of interactive media should minimize potential threats to the technical personnel, generated during technical maintenance, repairs and measurements, breakdown or technical failure removal.
- g) Display item removal or breakdown must not cause the shutdown of other stations.
- h) Display items and their parts, as well as the set design must take into account the width and height of passageways in the building, to allow for their transport without specialist equipment.

#### 5.4. Supervision

At the stage of Exhibition construction, the Contractor shall perform supervision, the purpose of which will be to oversee the construction process, avoiding downtime or delays in its completion, caused by design errors or the absence of replacement solutions.

##### 5.4.1. Supervision of exhibition construction and supervision by disciplines

The Contractor shall be obligated to conduct supervision in the completion of the subject of contact. The Contractor should guarantee full supervision of exhibition construction and supervision of particular disciplines by performing at least the following responsibilities:

- a) conducting full design author's supervision, particularly in terms of compliance of the executed works, deliveries, services with the interior-architectural design;
- b) participating in weekly and periodical coordination meetings and attending pertinent meetings at every request;
- c) performing regular inspections within the Exhibition construction space in the course of the investment project and after the exhibition is opened, on dates listed in the design author's supervision schedule;

- d) explaining any doubts regarding the interior-architectural design and its solutions - the Contractor shall be obligated to provide explanations within 3 business days from the date they are reported by the Principal in writing (letter, e-mail, fax);
- e) developing and agreeing on the possibility and method of implementing replacement and additional solutions in relation to the solutions specified in the interior-architectural design;
- f) supervising works executed under the interior-architectural design and disciplinary designs in terms of avoiding the need to implement changes in the design documentation, as well as the need to change the building permit issued for the building, in which the exhibition will be located;
- g) in justified cases, particularly in the case of corrections / supplements to the substantive script for the exhibition, executing corrective documentation of the exhibition interior design, at the Principal's request, to update / detail / correct the design solutions applied in the input documentation. For the purposes of corrective documentation preparation works, the Contractor shall guarantee additional design work performed by proper specialists. The Contractor shall supply the developed documentation in hard copy and in the electronic version (pdf and editable version) within a deadline agreed on with the Principal, and shall transfer copyrights to this documentation onto the Principal.
- h) launching the exhibition and proving startup supervision during exhibition operation by the Principal - the so-called 60-day stabilization period since the exhibition launch, during which the Contractor shall be obligated to delegate an employee to supervise and control the functioning of particular subsystems and systems; this employee shall be obligated to react in progress to any problems related to exhibition startup.
- i) participating in the verification and acceptance of as-built documentation.

## 6. Appendices

Appendix 1 - visualizations and photographs of the Carpenter's Workshop building.

Appendix 2 - Carpenter's Workshop revitalization project design documentation.

Appendix 3 - division of flooring.

Appendix 4 - basic standards and technical approvals applicable to the contract.