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Ethnic Flutes.

Description of selected instruments and transverse flute, its
possibilities of imitating the sounds of selected Polish and world's
ethnic aerophones

Ph. D. Dissertation

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Introduction

The purpose of this dissertation is to promote ethnic flutes and modern transverse flute in ethnic music. The main inspiration of the author's ornamentation as used in this thesis are three instruments, i.e. the *native American flute*, *ney* and *shakuhachi*. Other instruments constitute an indirect inspiration regarding the author's ornamentation as used in the dissertation.

This thesis comprises four chapters discussing the general history of selected instruments, their role from the cultural perspective and technical possibilities. The work refers to a number of instruments which do not have a direct influence on the author's ethnic ornamentation. The key element of the dissertation is imitation of the sounds of ethnic instruments from all over the world. It offers an experimental view of the modern flute as a universal instrument which, despite its special role in classical, jazz and contemporary music, is also a "tool" used in pursuit of the ethnic consonance of the world.

The first chapter presents a general history of selected flute types of the world. Knowledge of this history constitutes a basis for understanding the idea and role of instruments over history. It is a depiction of their evolution and changes which have taken place in their structure, material and sound. Many instruments which were an identification mark of a particular region, looked different in the ancient times in comparison with the way they look today. An example may be the *shakuhachi*¹ flute discussed in chapter two whose "predecessor" is the Chinese flute called *xiao*², which differs from the *shakuhachi* in blowing technique and structure. Instruments' history is a good lead to the understanding of the ethnic flute playing³ - not only as a group of instruments but also in terms of differences between the cultures of the East, West, North and South. The second chapter describes characteristic instruments of the world and Poland which in a particular culture are carriers of the ethnic performance techniques. It also describes their structure, role in the regional culture and spiritual or religious use of a particular instrument, e.g. during prayers, meditation or other rituals not necessarily linked with religious rites. Chapters three and four discuss the performance and technical issues with a description of the proposed author's ethnic ornamentation converted into the modern transverse flute. The most inspiring and characteristic sounds proved to be the sounds the *Arabic ney*⁴, *Indian flute*⁵,

¹ *Shakuhachi* – a Japanese ethnic aerophone made from bamboo – discussed on p. 27.

² *Xiao* – a Chinese ethnic aerophone made from bamboo – one of the oldest end-blown flutes dating back to ancient times. Its photograph is given in the photo gallery on p. 115.

³ *Ethnic flute playing* – the term coined by Katarzyna Gacek-Duda is suggestive of a wide realm of musical culture including ethnic flutes of the world as a single area of science, performance, ornamentation techniques and flute history. It is used throughout the thesis to make the discussed issues more precise. The term "ethnic flute playing" refers to all ethnic aerophones of the world and individuals who also receive musical education based on this type of instrumentation.

⁴ *Arabic ney* – an instrument made from the *Arundo donax* grass. Its origins go back to ancient times. The instrument is discussed on p. 25.

⁵ *Indian flute* – an ethnic aerophone from North America and Canada. The instrument is discussed on p. 18.

Japanese *shakuhachi* or Polish *aliquot flutes*.

⁶. Chapter three presents the above-mentioned ornamentation with graphics and description of the sounds and ornamental figures which are suggestive of a specific way of performing a musical composition. Chapter four comprises a description of a musical piece. It contains a discussion of live recordings from different regions of the world and a description of ornamentation with several examples of musical scores.

The dissertation is a result of work of the past five years. The underlying reason for choosing this particular topic was broader familiarisation with the technique of ethnic flutes in professional practice and professional practice applicable to modern transverse flute. One of the key factors determining the choice of the topic was single-tonality of some of 5-, 6-, 8-holed ethnic flutes which allowed to perform some melodies only within a limited tonal and chromatic scale. Due to conversion of performance techniques into the transverse flute, the pieces may be much more complex from technical or chromatic perspective. The description of work stems from own experiences of the author as well as conversations with individuals who perform traditional and live music in a particular ethnic culture. Research into the ethnic flute playing carried out since 2015 is an interesting experience developed not only through listening to the music of other world cultures but also through private journeys to the countries of origin of the instruments. The explorations also include conversations with street musicians or traditional music performers, makers of for example Chinese or Carpathian flutes, or conversations with Bedouin shepherds who play *ney* during sheep grazing. The thesis contains not only opinions of amateur musicians but is also based on consultations with professional musicians who play the pieces from the border of tradition and *world music* ⁷, interweaving their artistic creation with the elements of jazz, or classical music.

The status of research with respect to similar issues is discussed by performers and composers of classical music. The sound and special ornamentation or performance technique on the transverse flute are popular in the context of contemporary music of the 20th century. In popular music, beatbox plays such a performance role⁸. Despite the apparent similarity to the issues discussed in this dissertation, beatbox offers a completely new technique, aesthetics and performance culture of a musical piece. Many flute players, performers and composers of contemporary music discovered application of the flute sound within the microtone aspect⁹.

⁶ *Aliquot flute* – an ethnic aerophone encountered in Poland, Slovakia, Czech Republic, Hungary, and Norway. The playing technique consists in compiling the sound from constituent tones. The instrument is discussed on p. 15.

⁷ *World music* – a broad term covering not only ethnic music or music inspired by it but also the music close in style to popular music created in exotic countries. The classification of the *world music* into musical styles is purely based on geography of music played in individual countries or geographic regions. Folk music is treated there as the European music. In literature, the division into folk music, i.e. European folk music, ethnic music and the music of the rest of the world is also encountered.

⁸ *Beatbox* – a form of rhythmic creation of sounds imitating percussion, animal voices or other laryngeal sounds.

⁹ *Microtones* – in this thesis, the microtones related to the tonal interval of the sound, e.g. 1/9 of the tone or 1/7 of the tone. Use of microtones is characteristic of the Middle East, Turkish and North African music.

A particular inspiration for the dissertation was the Japanese composer Toru Takemitsu, offering an extraordinary combination of the culture of the East and West. In his piece entitled “Voice”, we learn of the origin of a particular extra sounds or techniques used on transverse flute. Another inspiration was Robert Dick, a flute player and creator of novel performance techniques on transverse flute.

The scope of the thesis also covers the experience of an ethnic flute playing on selected instruments. The aerophones which were chosen to create an artistic piece are particularly important for the regions of their origins. After thorough, long-term experiments, there emerged an interesting picture of performance practice, created on the basis of experiences obtained while playing the ethnic flutes and transverse flute. The dissertation also discusses the topic of instruments of Indians from South America. The artistic part contains only a moderate sample of two selected flutes of this region. The sound of South American Indians, although there is no piece for this instrument in the artistic part, also had influence on the described author’s ethnic ornamentation.

The contemporary flute offers a wide spectrum of technical possibilities. A characteristic way of blowing allows considerable changes of the tone and intonation variants. The quality of the sound (tone) is also affected, for example, by the possibility of head movements, manual technique and instruments as well as fingertips. The largest manoeuvre possibilities with regard to the changes of the tone colour have contemporary instruments made from wood with the so-called “open keys” and noble material from which the mechanical elements are made such as, for example, ebony flute with golden or silver mechanical parts. The same situation concerning silver and golden plated flutes with open keys; however, in these instruments the so-called “metallic tone” can be heard. It may be controlled by blowing, however, not to the extent possible in transverse wooden flute. The artistic work focuses on flutes popular in Israel, Palestinian Territories, Turkey, Bulgaria, China, Scotland, Ireland and both Americas.

The work contains a concise description of selected ethnic flutes, their history, construction and role in the culture from which they originate. Also analysed are sound-tone values and the related ornamentation, phrasing and other selected aspects of performance techniques, or the role of the instrument in a given culture. All of those elements may form the basis for creating a new artistic language dedicated to transverse flute which is connected with the history of selected instruments and journeys brought about by their melodies, characteristics of the region and most importantly the knowledge presenting in more detail a particular ethnic or cultural group. Everyday traditions, rituals and rites of remote cultures of the world are closely linked with traditional music. The exceptional Japanese culture, concentrated on celebrating each sphere of life, including the tea brewing and drinking ceremonies, has its counterpart in the music performed on *shakuhachi* – a traditional flute whose sound is deprived of chance or chaos. The Japanese people, as well as their music, have their traditional set of rules which are extremely important during learning and then during the performance of musical pieces.

The artistic creation part also uses the tone and ornamentation of Irish flutes such as *Irish flute* or *whistle tin* – a 6-key pipe made from metal, plastic or wood. Music of the British Isles

is very popular across Europe including Poland. One of the promoters of such instruments as *flageolet*. or *whistle tin*, in Poland is Wojciech Wietrzyński¹⁰. The *Irish flute* is an instrument modelled on professional instruments from the 19th century. When these instruments emerged, the older wooden instruments used in classical music allegedly lost their value and they could very often be found in dustbins or containers in the streets of Belfast, or other, smaller Irish cities¹¹. It led to a situation where folk musicians found and renovated them to perform the music with typical Irish ornamentation.

Wojciech Wietrzyński also contributed to the propagation of Celtic music and its ornamentation in Poland. He is the author of a number of publications and song books with Celtic music, for example a song book with notes entitled: “*Flageolet – an Easy Way to Nice Music Making*”.

The Irish ornamentation has been described by many schools and musicians of the region. The artistic creation part includes among other things a composition entitled *Stormy Night* (no. 10, p. 57), where besides the author’s ornamentation, basic Irish ornamentations were used including *cut*, *tap rolls* and *crane*¹².

Irish flutes are an indirect inspiration underlying a musical piece. Irish ornamentation appears in the musical piece only occasionally, for example, in the pieces entitled *Stormy Night*, *Irish polka* (no. 20, p. 80) and *Psalms 23* (no. 24, p. 87).

Each tradition and culture have their own rules and beauty canons worked out throughout centuries. Although contemporarily modified and transformed, they still constitute a kind of a cultural backbone of a particular ethnic group of the world. The most important part of the work is creative inspiration enabling to create a new artistic language in the form of author’s ethnic ornamentation and performance technique. The pursuit of new sounds and thinking directions with respect to performance practices is a worthwhile and substantial contribution into the process of instrument development as well as an opening of a “new card” in the broadly understood ethnic music.

¹⁰ Wojciech Wietrzyński – Vice President of Stowarzyszenie na Rzecz Efektywnych Metod Umuzyczniania E.M.U. [Association for Effective Methods of Musical Education - MME]. Within the scope of the activity of the Culture Club in Swarzędz, he conducts Swarzędzka Orkiestra Flażoletowa [Swarzędz Flageolet Orchestra], which he founded 25 years ago (15th February 1996). He also conducts flageolet classes within the scope of musical education of initial grades of primary schools SP4 and SP5 in Swarzędz and primary school SP62 in Poznań. Wojciech Wietrzyński also conducts many flageolet courses for teachers and animators in cooperation with, among other things, Pracownia Pedagogiczna im. prof. Ryszarda Więckowskiego [Ryszard Więckowski Teaching Lab] and Ośrodki Doskonalenia Nauczycieli [In-service Teacher Training Centres]. He is also an initiator and has been the artistic manager of Międzynarodowe Warsztaty Flażoletowe [International Flageolet Workshop] for 22 years.

¹¹ Information relayed by the Irish musicians in Belfast.

¹² *Flute Lesson – Ornaments: Taps, Cuts and Rolls*. A video tutorial on how to perform elementary Irish ornaments on the wooden transverse flute, <https://www.youtube.com/watch?v=h-CU4XvUGIQ>, [23 V 2020].

I. An outline history of the flute

Flutes are instruments which were present in each of the historical epochs – from prehistoric times until the present day. One of the oldest flute types were reed pipes. In the Stone Age, very primitive pipes and *bone whistles*¹³ were used as signal (alarm) instruments.

The first *end-blown flutes* with slotted holes were made from reindeer bones while the first *bone pipes* were three- or five-holed. They were musical instruments producing sounds in the scale close to pentatonic scale. Multi-colour, amazing cultures of the world have produced various forms of flutes. The instruments varied in shapes, sizes, material used to make them and the function they performed in a particular culture. Besides differences, there are also many similarities and universal cultural connotations¹⁴.

I.a La historia of ethnic flutes

In the early epochs of the history of Europe, among other things, horns resembling animal horns made from metal were used. Lures (call horns) which appeared Denmark and south Sweden have a shape of such horns; *Lures* were always used in pairs thus resembling animal horns. This parity was used to enhance the power of the instrument sound.

In the 7th century BC, *aulos* appeared in Greece. The evidence is provided by marble figures found among other things on Kos Island. They represent a musician playing the *aulos*. *Auloses* originating from Greece were made from wood, ivory or metal. They were also provided with a double reed. Two pipes were usually played simultaneously. *Syringa*, also referred to as the *pan flute* is an instrument derived from Arcadian god of shepherds occurring in a number of legends linked with the pan flute¹⁵.

In Bulgaria, in ancient times, there occurred an instrument based on “diagonal” technique called *kaval*¹⁶. Initially, it consisted of only one part and now it has three parts, i.e. the mouth-piece, body and foot point. The name, i.e. *kaval* also refers to the flutes from South-Eastern Europe which feature chromatic array of the finger holes.

Ethnic aerophones of the Middle Ages include both horns made from metal, animal horns from ivory and whistles (recorders) such as *pan pipe* and *one-handed pipe*.

In the Middle East countries, *ney* has been a symbol of the musical tradition of Asia Minor and North Africa. It is still used in folk and artistic music in the form of the *Turkish ney* in the territory of the former Osman Empire or the *Persian ney* in the musical traditions of ancient Persia, i.e. today’s Iran (a description of this document can be found on page 25).

¹³ *Bone whistles* – the first primitive aerophones producing “flute-like” sounds made from animal bones of buffalos (rams), various birds or nut shells, i.e. walnut.

¹⁴ *The Bone Age Flute* - an Internet article from the BBC news portal. Retrieved from: <http://news.bbc.co.uk/2/hi/science/nature/454594.stm>, on 23rd September, 1999 [2nd Aug., 2021].

¹⁵ U. Michels, *Music Atlas, vol. I*, Great antique cultures, Palestine, Egypt, India, Wydawnictwo: Prószyński i S-ka, pp. 162–167.

¹⁶ *Kaval* – the name of end-blown instruments. The Bulgarian kaval is in the private collection of instruments of Katarzyna Gacek-Duda (see: pp. 102, 104).

In the Middle East countries, a traditional musical band is usually a quartet in the following composition: *ney*, *oud*¹⁷, *darabuka*¹⁸, and *qanun*¹⁹. Sometimes, bands with *ney* and *darbuka* or *ney*, *darbuka* and *oud* can be encountered; however, they are not regarded as traditional ones. Other combinations are also possible but not exactly in full conformity with the Arabic country's tradition.

Gi-bu is the name of the pipes originating in Mesopotamia. The term referred to a "long pipe". The pipes were not provided with mouthpieces and during the performance they were held in a vertical position. Other instruments include *double shawms* – two metal-plated or silver-plated pipes of the same length. Little is known about the music – the positioning of the openings in the surviving instruments allows to assume the use of pentatonic or heptatonic scales²⁰.

In ancient Palestine, Phoenicians invented an instrument referred to as *double aulos*. In Hebrew context, it is worth referring to the Old Testament as there is no sufficient scientific evidence regarding the first flutes used in the early history of this nation. Jubal is the first Biblical musician "from whom all zither and lyre players descend" (Chapter 4,21–22)²¹. *Ugab* is a Biblical name referring to a wind instrument. This term also refers to single and double reed pipes. It was used in folk and pastoral music. *Shofar* was a holy horn of the Hebrew people made from the ram's or goat's horn. It is still used during special holidays in Israel and worshippers of Judaism around the world.

In India, not very distant from the Middle East, flutes have been used as accompaniments for singing since ancient times. *Bansuri* is a flute which is closely linked with India – it is a transverse bamboo flute with a beautiful sound. The playing style on the Indian flute requires many years of practice and studies of traditional Indian music.

In China, during the Shang dynasty (1500–1000 BC), there appeared vessel flutes and pan flutes (syrinxes). During the Zhou dynasty, there existed flutes such as *p'ai-siao* – they were instruments resembling pan pipes and consisted of several bamboo pipes connected with a string. The 6-holed, egg-shaped *vessel flutes*²² were made from clay²³.

¹⁷ *Oud* – a chordophone, fretless predecessor of lute originating from the Mediterranean and the Middle East regions.

¹⁸ *Darbuka* – a goblet-shaped drum used in the music of the Middle East. In Israel, it was played during particularly important events such as weddings or Bar and Bat Mitzvahs - a celebration of the 13th birthday of a boy who as of this ceremony can participate in all religious rites.

¹⁹ *Qanun* – a string instrument from the zither group; one of the oldest instruments in the world popular in the Middle East.

²⁰ U. Michels, *Atlas Muzyki [Music Atlas]*, vol. I, op. cit., p. 161.

²¹ *Pismo Święte. Stary i Nowy Testament [The Bible. Old and New Testaments]*, managing ed. rev. Michał Petera (*Old Testament*), rev. Marian Wolniewicz (*New Testament*), Poznań: Księgarnia św. Wojciecha, 2006.

²² *Vessel flutes*, e.g. *Chinese ocarinas* – egg-shaped, clay instruments with 5 openings, often used for meditation. The instrument is part of the private collection of Katarzyna Gacek-Duda (see: p. 114).

²³ U. Michels, *Atlas Muzyki [Music Atlas]*, vol. I, op. cit., 161–162.

The Chinese transverse flute - *dizi*²⁴ - is, besides *bawu*²⁵, or *er-hu*²⁶ an absolute pride of the Chinese musical culture. In *dizi* the opening, which can be found between the “mouthpiece” (nest) and a number of fingertips holes is a place for the “Chinese tissue paper”, which (if placed adequately) vibrates producing one of its kind “buzzing” sound introducing the listener to world of the Chinese musical culture within seconds.

The Japanese *shakuhachi*, besides difficult performance technique deriving from the structure of the instrument and rigours of the traditional musical pieces, is part of the Japan’s national heritage. The *native American flute*²⁷ is the name which can only be use by native Indians of North America. *Native art* is also an American name protecting all handicraft of the native Indians including the *native American flute*. The flute has many names – the most popular one is the *native American flute*, and in the Lakota people language it is called *Šiyóthanka*. *Šiyóthanka* - its literal meaning denotes a “beautiful song”. Legend has it that this instrument was given to the Indian people by a red-headed woodpecker. To commemorate this vision, the instrument is provided with a bulging element of different shapes, usually taking the form of a bird or a plant. In either case, the own name of the element, or a figurine, refers to a bird. *Charkas* are flutes originating from South American simple in structure and in varied shapes.

Other recorders of South-American Indians include: *pinkillos*, *aymaras*, *tokurus*, *quena* or *tarkas* used during the funeral rites. Apart from those, the symbols of South American are also pan pipes or *cut flutes*.

I.b Parts of ethnic flutes and manner of producing the sound

Ethnic flutes, are straight pipes, or reed pipes, made from natural raw materials, usually grass, bamboo, ceramic, bones or clay. Each flute has a mouth hole and finger holes which are used to change the tone pitch by covering the openings with a finger or a key. There are also instruments which are only provided with the mouth hole, i.e. no finger openings. Ethnic flutes offer different possibilities of producing the sound.

The lip technique, end or diagonal, used when playing the *kaval*, *ney* or *diagonal flute* consists in placing the mouthpiece side of the instrument to the side of the lips and producing a sound by blowing in the airstream onto the side edge of the mouthpiece. Flutes with the threshold mouthpiece including, among other things, *6-holed pipes* or *aliquot flutes*, involve the simplest technique, i.e. the instrument is placed at the central part of the mouth so that the

²⁴ *Dizi* – a traditional Chinese transverse instrument made from bamboo. The instrument is in the private collection of Katarzyna Gacek-Duda (see: p. 111) and was brought by the author of the thesis from China from the China-Mongolia musical one-month tour in 2011.

²⁵ *Bawu* – a traditional Chinese transverse instrument made from bamboo. The instrument is in the private collection of Katarzyna Gacek-Duda (see: p. 113).

²⁶ *Er-hu* – traditional Chinese knee-supported, double-stringed, string instrument. The instrument was imported from China and is in the private collection of Katarzyna Gacek-Duda.

²⁷ *Native American flute* – the flute of the North American peoples. The instrument is in the private collection of Katarzyna Gacek-Duda (see: p. 118).

mouthpiece is slightly covered with the upper lip.

The lip technique applied to transverse flutes, i.e. flutes as well as wooden and bamboo flutes consists in placing the instrument under the lower lip and raising the corners of the mouth upwards and blowing the air onto the external edge of the mouthpieces vibrating under the air pressure.

I.c the role of ethnic aerophones in the cultures of the world

The role of ethnic flutes in the culture was the linked with the musical custom, ritual and meditation tradition. In each part of the world, the flute was a particular kind of instrument accompanying weddings, holiday ceremonies, or was used as a solo or meditation instrument. In Japan, the *yokobue* flute “played” during the tea ceremony. In North America, the holy *Native American flute* was to heal the people whose souls were tormented. In South America, the pan pipe was the instrument which could only be used during the dry season.

In Poland, the *Lenten fujara*, made from thorn bushes, could have been heard during the Lenten Season. The sound of *Podhale dvoyanka* accompanied shepherds grazing their sheep in the mountain pastures. The Japanese *shakuchachi* was also an instrument of the *zen*²⁸ monks used for meditation purposes.

In Sufism, the *Turkish ney* helped the individuals who wanted to achieve the highest level of unity with God to fall into trans. Sufism, i.e. *tasawwuf* in Arabic, is not regarded as an Arabic variety of Islam but is regarded as a theological and cultural trend. It was formed in Iraq between the 7th and 8th centuries; first, in al-Kufa and al-Basra. The notion of Sufism is derived from the word *suf* (wool), which denoted the head scurf worn by *sufi*²⁹. A characteristic feature of *sufis* was their indifference to the rules of Islam. Their own forms of cult were combined with various rites such as dancing and listening to music, which they referred to as *sama*. The most important objective of the mystics was to achieve spiritual unity with God through ecstasy³⁰.

²⁸ *Zen komuso monks* – monks with characteristic straw baskets on their heads originally came from Samurai. The *komuso* monks played the *shakuhachi* flutes. The prime time of their development was in the period 1600–1868. See: Nishiyama Matsunosuke, *Edo Culture: Daily Life and Diversions in Urban Japan 1600 – 1868*, University of Hawai’I Press, Honolulu 1997, p. 124.

²⁹ M.M. Dziekan, *Dzieje Kultury Arabskiej [The History of Arabic Culture]*, PWN SA, Warszawa 2008, pp. 205–206.

³⁰ *Ibidem*, pp. 207–208.



The oldest musical instruments, *bone flutes*. Scientific research has shown that they are approx. 43 thousand years old. The flutes are part of the exhibition at the Museum of Prehistory in Blaubeirn, Germany³¹.

³¹ A. Iwaszkiewicz, *The earliest instruments found on Earth are flutes – some of them are at least 43 thousand years old*, <https://epochtimes.pl/najstarsze-instrumenty-znalezione-na-ziemi-to-flety-niektore-licza-co-najmniej-43-tysiace-lat/>, [10th Oct., 2021].

II. Description of the selected instruments used in the recording of the music piece

II.a Selected Polish shepherds' flutes

*„...So, I will blow
My ebony flageolet
To make this night best of all”*

Juliusz Słowacki

A Journey to the East, Song VI: Night at Vostiza, stanza 19



A photograph from Katarzyna Gacek-Duda gallery of 6-holed pipes.

Parts of the instruments

Polish flutes are *pipes* (tubes) made from hollowed tree or bush branches. The most difficult step in the pipe making is “hollowing the tunnels” in the tree branches. In Poland, they were usually made from elder, linden or sea buckthorn wood. The holes in the fingering part or flute (recorder) shaft were burnt with a hot rod. It was one of the traditional techniques of instrument making. The makers depended on the season of the year. The use of trees revived in spring time was not allowed as the timber might have cracked later during the drying. Sticks or branches were collected in winter season and subsequently dried by the fire places at home or in the barns,

sometimes for many years. Timber was dried together with the bark and the stick ends were insulated for example with paraffin. Other raw material used in the production of the instruments was clay - characteristic of aerophones used at the same time as children's toys from the ocarina group.

Ocarinas made from clay or clay whistles and singing "birds" filled with water are part of the burnt instruments tradition which is particularly typical of the Żywiec region. In Poland, the instruments with the "threshold" (nest) mouthpiece, for example aliquot instruments, were usually encountered. Aliquot recorders may have one or several holes in the fingering part which produce main tones forming the basis of a melody consisting of sound constituent tones. In Poland, the following recorder types can be distinguished: *three-holed pipes*, *five- or six-holed pipes*, *buffalo bone whistles*, *lures* or *8-holed pipes made from turkey bones* as well as *multankas* (pandean pipes) resembling *panpipes*. There are grounds for claiming that the *pandean pipe* was found in Milówka region³², i.e. at the border of Żywiec and Silesian Beskids.

The *diagonal recorder* made from elder wood was brought to our country from across the eastern border. Diagonal recorders made from reed or elder wood were also present in Poland in the form of *trumpets and horns*. Typical Polish aerophones also included, among other things, *wooden lures* and *horn lures*, *water-filled whistles*, or *simple whistles* (in the shape of a cock or nightingale). Other instruments include *double-reed horns* (signal instruments), *Lenten pipes without finger holes*, *double pipes* – instruments also referred to as *dvoyankas*. They were made from a single piece of wood or two inter-connected pipes – one with 6 holes, and the other "attached" to it without any opening in the fingering part used as a drone pipe. The *dvoyanka pipes* have the same length. *Dvoyanka* is one of the instruments which became an inspiration for the double *ethno-singing* ornament whose description is given in Chapter III on p. 44. *Dvoyankas* can be found in Podhale and Orava. *Polish ocarinas* are well-known and highly appreciated with regards to their artistic qualities. The history of *ocarinas* reaches Northern Italy where the first one was made by Giuseppe Donati from Budrio in 1860. The instrument gained popularity in Poland resulting in a situation where a number of potters extended their ceramic treatment skills to making and decorating such aerophones³³.

The role of Polish recorders

Polish recorders were used as solo or accompanying instruments especially in the mountaineer bands. Shepherds' recorders, as the name indicates, were solo companions of shepherds on mountain pastures from May to October. Some of the instruments were used to deter wolves from attacking sheep herds. The most useful in this regard were horns made for example from rowan wood or trumpets characteristic of Trójwieś Beskidzka and Żywiec region.

The aliquot recorders such as the *Lenten fujara* are a group of instruments characteristic of

³² Information received from the inhabitants of Milówka, i.e. folk artists, musicians and individuals who devoted their lives to the regional culture of Żywiec region.

³³ A. Oborny, *Ocalić od zapomnienia. Polskie instrumenty ludowe [Save from Passing into Oblivion. Polish Folk Instruments]*, MUZA SA, Warsaw 2015, p. 123.

the Beskids made from thorn trees such as sea buckthorn or hawthorn. They were instruments usually heard during the Lent and their sound was a typical instrument of the Good Friday liturgies. The *sałasnik pipe* – an aliquot aerophone also occurring in the Silesian Beskids region – was used by shepherds and was the symbol of the power of sałasnik. *The sałasnik pipes* belonged to the social group in the Silesian Beskids region. The *Podhale polica* is an aliquot recorder with three main holes, on which base tones melodies are built and, as the name indicates, they originate from the region of Kościelisko and Zakopane. *Ceramic whistles*, known across Poland, were once used as children's toys which if filled with water were used as an aerophone resembling Polish birds once the air stream was pushed into them.



A photograph from Katarzyna Gacek-Duda gallery representing three *Lenten fujaras* with various tonalities.

Performance technique

Contrary to what might be expected, Polish ethnic recorders such as for example the *6-holed pipe*, or aliquot recorders, are very difficult instruments. Lack of knowledge about the use of diaphragm and its synchronisation with the manual and breathing techniques did not allow the musicians to play them properly. Lack of skills linked with adequate breathing technique are the underlying cause of intonation problems and hence contribute to technical limitations. A very important part of the instrument making was its length as the ability to calculate the distance between the finger openings determined the quality of the instrument in the context of the tuning and sounding. How the distances were calculated also affected the scale and intonation; however, the skills of the player were the key. In Poland, the artists playing traditional aerophone music in an exceptional way are among other things Jan Karpiel-Bułecka from Kościelisko, Józef Broda from Istebna and his son - Jozsko Broda.

In the Beskids, the place where traditional way of *6-holed pipe* playing can be learnt is Fundacja Braci Golec [The Golec Brothers Foundation]. Educational centres are located in different villages of Żywiec region. In the description of the artistic part, Polish recorders provide an intermediate inspiration for the development of author's ornamentation which is described in Chapter III. The most inspiring recorders, which, to a certain degree, contributed to the emergence of the *flute-swish* (*fletoświst*) technique were aliquot instruments such as *Lenten fujara* and *dvoyanka*. They also allowed to create the *double ethno-song* ornament, which is described in Chapter III.

Some of the pipes are referred to in Poland as *czekans*: “When you want to dance - dance!” said Mr. Uhlik. “There is no need for fiddles, or the double bass, because I will play my little *czekan* for you.” Having said that he produced a secret instrument from the leather sheath hanging by the sabre and started to play while the young bachelors shuffled towards girls...”³⁴.

³⁴ H. Sienkiewicz, *Potop* [The Deluge], Drukarnia Biblioteczna „Książnica”, Katowice 1988.

II.b Ethnic flute of the North American peoples (Indians)

NATIVE AMERICAN FLUTE

*„Hear us as we pray in this circle,
As we smoke the holy pipe of the people,
Show us show to live with all our relations.”*

Lyrics of the song of the North-American Indians
to the Great Tunkasila³⁵



An instrument made from mahogany and cherry wood. The fingering part has 6 holes.

The *native American flute* is the first flute which provided inspiration for creating the ethnic ornamentation. Its warm sound, characteristic performance technique and Indian simplicity of the understanding and comprehending music through intuition, emotions and aesthetics of the

³⁵ *Tunkasil* in Lakota it means: grandfather. The word also denotes male causative energy. The author found it out during the conversations with Tommy Harevis who is a friend of the traditions cultivated by the Mayan and North American peoples' descendants. He is also a 'white' member of honour of one of a number of South American tribes and a friend of Indians.

surroundings which added a particular aspect to flute performance.

Parts of the instrument

All flutes of this type have the same division into two chambers, i.e. *slow air chamber* – the chamber releasing the air and the sound chamber. These instruments are used by all North-American Indians with the exclusion of Mexico.

The flutes of the North-American people had 5 holes and enabled pentatonic tuning. With time, the sixth hole was added which allowed to go beyond the range of pentatonic melodies.

Instruments at the outlet goblet take the form of a nipple to remind young men of their mothers, i.e. the female elements of their lives, female sensitivity and gentleness. The “nipple” was also to invoke the memory of the mother who breastfed them. The symbol was also to reduce the accumulated aggression which occurred in young men during tribal wars or battles³⁶.

The role of the flute of the North American peoples

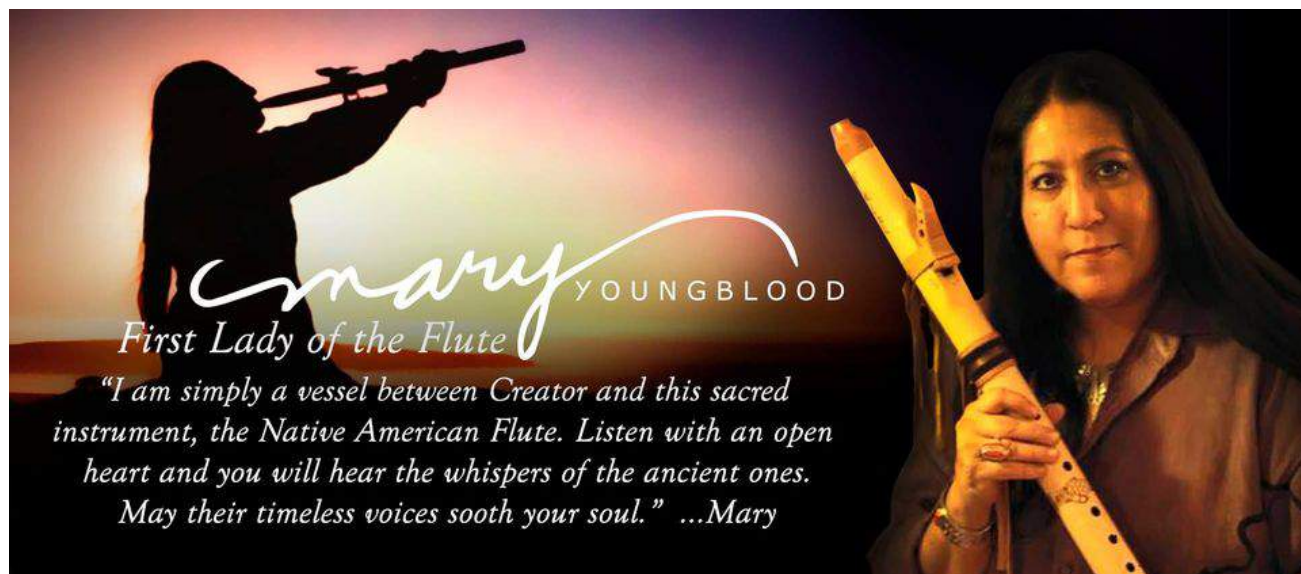
The North American people’s flute is, among other things, a shaman’s instrument which in the Indian belief forms the basis for curing people with soul problems and depression.

The instrument produces a magical, soothing, and mellow tone. A well-made instrument hypnotises with its deep tone. The other hole, from the mouthpiece side, is usually covered in leather so the player is not constantly focused on its covering with the third finger of the left hand.

The flute has an 8-degree scale only. The aliquot sounds are not practised. Despite its limited scale, the instrument is very popular around the world. Its popularity can also be observed on social media where the *Native American Flute* community from all over the globe share their experiences and skills.

The North American people do not distinguish between musical styles of entertainment or traditional music, nor do they apply the word: art. Indians believe that everything is sacred. In the past, the *native American flute* was also referred to as the flute of love. A female chief by the name of “Running Water”³⁷, a well-known Indian healer, devoted many of her lectures to, among other things, the symbolic nature of the Indian traditional rituals, also mentioned that flutes originally intended solely for men, have now been used by women as a result of changes leading to women taking over many of male duties including the realm of traditional *native American flute* playing. A reason for this is civilisational changes and urbanisation of the land of the native American people. Mary Youngblood, an Indian woman, is a laureate of the Grammy award for cherishing the traditional native American flute playing. In the world of the North American musicians, she is called the first lady of the flute.

³⁶ *Ibidem*.



A photograph courtesy of Mary Youngblood, <https://www.facebook.com/pg/MaryYoungbloodOfficial/>, [12th October, 2020].

In the past, the *native American flute* was associated with courtship rituals. A man who wanted to meet a woman had to come close to the tipi where his favourite lived and play a flirtatious tune on the *native American flute* to lure her into a walk. If the woman liked his music, she would go out. The situation became more complicated if more women came out of their tipis.

Performance technique

A simple mouthpiece did not cause any problems with the air stream being blown into the instrument. The flute “plays” only in one octave. Very often, the system of teaching how to play, for example in the *Mohawk* reservation consists in looking into the horizon. When mountains appear, the music rises to higher tones. The purpose of the technique is to reflect nature and reality. The role of the Native Indian flute was to imitate nature as well as to offer a spiritual prayer.

The flute was often played during ceremonies and prayers to make the spirits hear the them. The so-called repertoire includes, for example, solo songs imitating nature or songs to the drum. One of the traditional songs which can be referred to at this point is the *Song of the Morning Bird*.

There also exists a ceremonial song, which is played during the pipe lighting ceremony of the *czanupa* people – erroneously referred to as the peace pipe. Each song has its place in the ritual ceremonies. The characteristic ornament for the *native American flute* is referred to as *the grace note*. Each consecutive note is usually ornamented with the appoggiaturas made with the pointing finger.

II.c Native flutes of South American Indians

Parts of the instruments

South of Mexico ethnic aerophones such as *quena* or strictly South American *samponie* (*pan pipes*) can be found. An interesting thing is that in the Guatemala region, there are many clay flutes which resemble European *ocarinas*³⁸. The instruments of the South American Indians have been an indirect inspiration in the context of the ethnic ornamentation referred to in the description of the musical piece. Sound inspiration or phrase direction is reflected in the author's ornamentation with respect to ethnic flutter-tonguing, *flute-swish* or soft vibrato referred to in Chapter III.

Blowpipes forming the *pan pipes* are single pipes interconnected in the order from the smallest to the largest in a similar way to the raft. Bands play many types of panpipes and have several pairs of instruments, which due to their different sizes, width of the pipes, or slightly different structure play in different registers. In the majority of pairs, there is a pan pipe with the even number of blowpipes and odd number of blowpipes.

The material used in South America as a flute building material is bamboo or clay. *Quene* used to be made from bamboo and sometimes llama bones. It is an empty tube with a delicately cut notch at the mouthpiece.

Performance technique

Recorders such as the above-mentioned *tarkas*, are beautifully decorated flutes provided with a mouthpiece. The blowing technique is very simple. The air is blown into the cut edge of the mouthpiece thus producing the sound. The *quena* sound is open and soft. The air is blown into *quena* through the slightly cut notch at the edge. It is one of the most difficult instruments of South America. The *pan pipes* are instruments with the lip – blowing technique. The pipes are positioned vertically at the chin and then the air is blown through the empty opening. The greatest difficulty with the instrument is the necessity to change the pitch of the sound by smooth passing of the panpipes along the lips. Intonation and half-tones require practice as they are achieved by slight inclination of the instrument “towards the player”.

The role of ethnic aerophones in South America

Musical behaviours of social groups inhabiting the Andes are closely linked with the perceived season of the year while musical creation and singing are determined by two seasons, i.e. the wet and dry seasons. The seasons also determined what instruments were used and the melodies and dances performed³⁹.

In the Oruro department, during the wet season, *charkas* flutes were used to honour Pachamama but also to express gratitude for the first good harvest during the season.

³⁸ Private observations, research and long-term friendship and conversations with Tommy Harevis.

³⁹ *Estetyka Indian Ameryki Południowej [The Aesthetics of the South American Indians]*, ed. by: K. Wilkoszewska, Wydawnictwo Universitas, Cracow 2017, p. 63.

Flute bands in the Andes used music playing in the form of interconnected pairs. The bands had paired instruments with male and female flutes. Such music playing was encountered in South America in different ethnic groups.

The Bolivian bands also use different types of *pan pipes* in joint music playing. The flute bands perform using the *single-row pan pipes* without drum accompaniment and *double pan pipes* played with the drum accompaniment.

The tradition of the flute bands is to play only during the dry season. Musicians usually play alternately thus entering into a peculiar musical dialogue. Such a way of music playing forms a counterpoint - *contrapunto*. Indians speaking Kechua refer to this type of playing as *purajsiknakuy*, i.e. let's have an "agreement"⁴⁰.

An important event for the Guatemala Indians is the cocoa making and drinking ceremony. The descendants of the Maya believe that cocoa is the holiest beverage of mother Earth. They also believe that it gives an unusual power, strength and health to women expecting babies. Another belief is that health is credited to the spirits and coca trees⁴¹. Having commenced the cocoa drinking ceremony, the Indians begin meditation and bow in all directions of the world while the guests are welcomed by the guardian of the day. The guardian of the day is an honorary member of the tribe opening the ceremony. During the festivities people talk about what the passing day has brought while the lighting of the "holy fire" begins the prayer of gratitude to the shaman spirits. Indians pray for everything that surrounds them, the entire universe. During the prayer the sound of flute introduces them into melancholic and peaceful mood while the cocoa is slowly stirred for the next eight hours⁴².

The role of South American flutes cannot be discussed without a word about Kokopella. He is a real man who became half-god and half-legend. He is a hunch-backed musician who plays the flute. Some stories have it that the hunch is linked with dancing, other tell us that the hunch is a sack full of goods to be traded; still other legends explain that the sacks are full of babies which he brings to the women who cannot have children. Kokopelli is a travelling musician - a man who travelled from village to village playing the flute which could be heard from far away and signified interesting news.

Later, the name *kokopelli* was given to other travellers – tradesmen who came to villages and played the flutes to announce their presence and encourage the villagers to buy their commodities⁴³.

There is a "*Kokopella clan*" among the flute players of South America. They are individuals travelling around the world and playing their instruments in various beautiful places as this is

⁴⁰ M.P. Baumann, *Wszystko jest kobietą i mężczyzną. Muzyka, dualistyczny symbolizm i kosmologia Andów* [Everything is a Woman and a Man. Music, Dualistic Symbolism and Cosmology of the Andes], [in:] *Estetyka Indian Ameryki Południowej. Antologia* [Aesthetics of the South American Indians. An Anthology], ed. by: K. Zajda, Wydawnictwo Universitas, Cracow 2007, pp. 74, 75.

⁴¹ Information from Tommy Harrevis and Padre Garcie from the tribe of the Maya descendants.

⁴² *Ibidem*.

⁴³ *Ibidem*.

their passion. Very often, the term *kokopella* referred to men only; however, recently the new name of *Kokopelli mama* has appeared to denote a woman playing flutes. The *kokopella* symbol was carved on rocks and painted; often enough kokopelli figurines were also made⁴⁴.



An image of Kokopelli (source: <https://mythologian.net/kokopelli-meaning-trickster-god-fertility-symbol/>, [21st October, 2020]).

⁴⁴ *Ibidem*.



A photograph from the private collection of Katarzyna Gacek-Duda presenting a family of the Garcia, descendants of the Maya who together with Tommy Harevis (third from the left) travel around the world and propagate information about their culture.



A photograph of some of the tools, instruments and items used during the long hours of the cocoa ceremony from the private collection of Katarzyna Gacek-Duda.

II.d Ney

Ney is another very special instrument which offered inspiration to the development of the author's ornamentation. Its moving and deep sounding in the lower octaves, penetrating in the higher and soft legato are a pretext to creating an ornament referred to as *ourbe* – the Arabic sound. A description of this ornament is given in Chapter III in part devoted to the imitation of the sound of the transverse flute discussed on p. 42. *Ney* is traditionally made from elephant grass; however, recently, also plastic instruments have been observed. Some flute makers also experiment with copper.



The Arabic/Egyptian ney – a photograph taken at the Dead Sea, Israel, during the recording made for the collection of ethnic musical pieces for *ney* and *darabuk* by Katarzyna Gacek-Duda.

Parts of the instrument

The Arabic or Egyptian ney is a simple pipe with the Edge blowing technique made in different sizes – as the majority of ethnic aerophones. In general, the *ney* has one back hole and 6 front holes.

The role of the instrument in Arabic culture

The Arabic ney is a traditional instrument of today's Israel, Palestinian Territories, Iraq, and Egypt. It is one of the oldest instruments of the world. Its roots go back to antiquity - 4–5 thousand years BC. The length of the instrument is ca 100–120 cm in an unchanged form but it

also is encountered under the name of *Uffata*.

During concerts, performers usually have several instruments of different sizes which allows them to easily perform the pieces written in various *maqam*⁴⁵. Sometimes, though, the *ney* virtuosos can perform a number of non-standard *maqam* sounds on a single instrument.

This ability can be accomplished by a musician through a peculiar subtleness of the lips and head moving technique. The holes are opened or closed depending on the skills of the player and performance combination. Thus, it is possible to both modulate melodies to the closest tonality as well as more remote tonalities without changing the instrument. The solo pieces are primarily performed on the *taqsim* – as a number of improvised sounds. In Arabic countries, the *ney* is played exclusively by men. However, there are rare instances of women players who can also be found – usually in Turkey; however, still a female *ney* player is a rarity. Tugba Hasbal is one of the few beautifully performing *ney* players specializing in the aforementioned *Sufi* music. Tugba Hasbal plays the *Turkish ney*, which differs from the Arabic one with the black nest with a mouthpiece – usually made from plastic but you can also find a more noble material including *granadilla*.

Performance technique

The sound is produced by blowing the air onto the edge of the opening. The instrument is held in a diagonal position with the mouthpiece attached to the side of the slightly open lips. In Arabic music, this instrument has been used as a solo instrument due to its performance technique, sound and a variety of possible shades. With regard to the structure, it is a very simple instrument, though. The overblowing technique allows the musician to achieve the ambitus exceeding three octaves. The basic sound depends on the instrument length – as in other ethnic flutes.

The Arabic *ney* is another flute which requires patience when producing the sound. As in transverse flutes, the first months of learning are a journey across different levels of musician's patience. Depending on the predispositions, the sound-like vibration may appear after a few days or several months of practising. The instrument is held in a diagonal position – not transversely or in a straight position as pipes. The *ney* has 7 holes. Each of the *ney* grasps has its own name. The first note is called *rast*, the second one is *duga*, the third *sega*, followed by *chaga* and *neva*⁴⁶.

Besides the *ney*, there are also other wind instruments such as *sabbabah* or *surmay*, which are linked with the folk music and which did not survive in the traditional Arabic folk music on a high level of recognisability. *Surmay* is an instrument with a double reed which is also popular

⁴⁵ *Maqam* – a number of tetrachords, i.e. the so-called Arabic chords. Each of them differs in the name, sounds, or microtones. The improvisation is open by a demonstration of one of the tetrachords. Subsequently musical expression is possible with the use of other sounds. The improvisation usually ends with the tetrachord (which commenced the improvisation) playing from “the top to the bottom”.

⁴⁶ Learn to Play The Ney – Ney Tutorial – Ney Lesson #1, <https://www.youtube.com/watch?v=k2tYtZ9VUdk> [13th May, 2020].

in the Middle East as well as North and West Africa. It was played with the accompaniment of various percussion instruments during processions linked with individual holidays. In North Africa, the *surnay* was also known as *al-ghaytah*, or *zukah*.

II.e Shakuhachi and yokobue



“When playing, feel the sound as it emerges, feel the concentrating energy, the contracting and expanding diaphragm, feel the lungs inhaling and exhaling the air, feel the throat opening;
Feel the sound resonating in your sinuses and its taste in your mouth; savour it as you do when drinking an expensive variety of wine (...)”

- Mary Lou Brandwein

Parts of the instrument

The *Shakuhachi* is the third flute which grossly contributed to the emergence of the author’s ethnic ornamentation. Its sound and incredible possibilities of connecting the breath with the sound became the main reason for developing the flute-swish technique referred to in Chapter III discussing the imitation of the transverse flute sound on p. 47.

The flute is traditionally made from the bamboo stem. Bamboo roots were also used; they slightly expanded at the bottom which allowed to reinforce the sound. The mouthpiece also has a sharp edge which divides the blown air producing a soft and penetrating sound. For the instrument to produce the sound, it has to be placed vertically at the mouth so that the mouthpiece with the cutting is exactly in the middle between the upper and lower lip. Subsequently, the air is blown into the cutting. *Shakuhachi* has 5 holes – four at the front and one at the back – and by covering and uncovering them five notes can be produced, i.e. D, F, G, A, and C – these sounds make up one of the two pentatonic Japanese scales. Despite its simple structure, learning how to play the instrument is very difficult and requires patience.

The role of the *shakuhachi* in Japanese culture

The time of musical Japanese styles is imposed by the breath and not by the broadly understood time. The length of the musical expression depends of the condition of the mind, body and breath of the player.

Whenever outside their temples, the *zen* monks have always used characteristic baskets called *tengai* made from rush. The basket has small holes; however, the face of the player is completely covered, which enables full concentration on music. The identifying sign is the

shakuhachi flute, which could not be played for entertainment. In the traditional music, this instrument usually describes the Japanese nature with the sounds of trees, spring water and wind. It serves the purpose of relaxation and meditation.

Zen meditation was one of the *shakuhachi* playing techniques. It required adequate body posture and breathing control which in turn led to the most important thing, i.e. control of your mind. Once accomplished, it was possible to further practice and develop in the context of playing the instruments or the traditional tea serving in Japan referred to as the tea ceremony⁴⁷. The *Shakuhachi* is an increasingly popular instrument in Europe. Due to artistic freedom music characteristic of Europe could be performed on it as well as traditional melodies connected with the precise school of Japanese style. Each choice requires accomplishment of technical skills on the instrument, which is tedious and difficult due to the specific way of blowing. The edge mouthpiece is a “curse” for the young learners of the *shakuhachi*. A minor exception is the ancestor of this instrument, i.e. *Xiao*⁴⁸ – originally coming from China. Here, the blowing technique is a little Kinder due to a simpler mouthpiece opening.

The *shakuhachi* performance technique

There are many other techniques of playing the *shakuhachi*. The player never improvises and performs strictly defined compositions. Due to a number of ways of playing, there emerged many schools of playing the *shakuhachi*, the most important of which is *meian-ryuu* – created in Tokyo by the monks from *Komuso* order of Kyoto⁴⁹. In Europe, the most important purpose of the playing was to achieve virtuoso skills – far better than those of other performers.

Following the school of the Japanese thinking, we start the learning process with self-acceptance which should liberate the internal development leading to learning the playing technique and most importantly to the achievement of the harmony between the body and the soul. The *shakuhachi* playing technique requires standing in a difficult position. The folded legs cause pain in many European learners who come to Japan to develop their *shakuhachi* technical skills. Willing to continue the study with the masters, they are doomed to taking breaks every 15 minutes during which time they do body stretching exercises as moving during learning is not allowed. Moving is a sign of lack of respect for the master. Asian people learn the sitting position with folded legs from childhood; therefore, they are able to spend even several hours in this position. The *shakuhachi* learning process is usually without words with the master not responding to any questions. The traditional *shakuhachi* playing method was cherished during a speechless process in the form of imitation as it allowed to preserve the continuity of the tradition. In traditional Japanese playing schools, each man is regarded as different and

⁴⁷ I. Pietraszewski, *Shakuhachi w praktyce zen (suizen) [Shakuhachi in Zen (suizen)]*, <https://mahajana.net/biblioteka/teksty/shakuhachi-w-praktyce-zen-suizen>, [15th August, 2021].

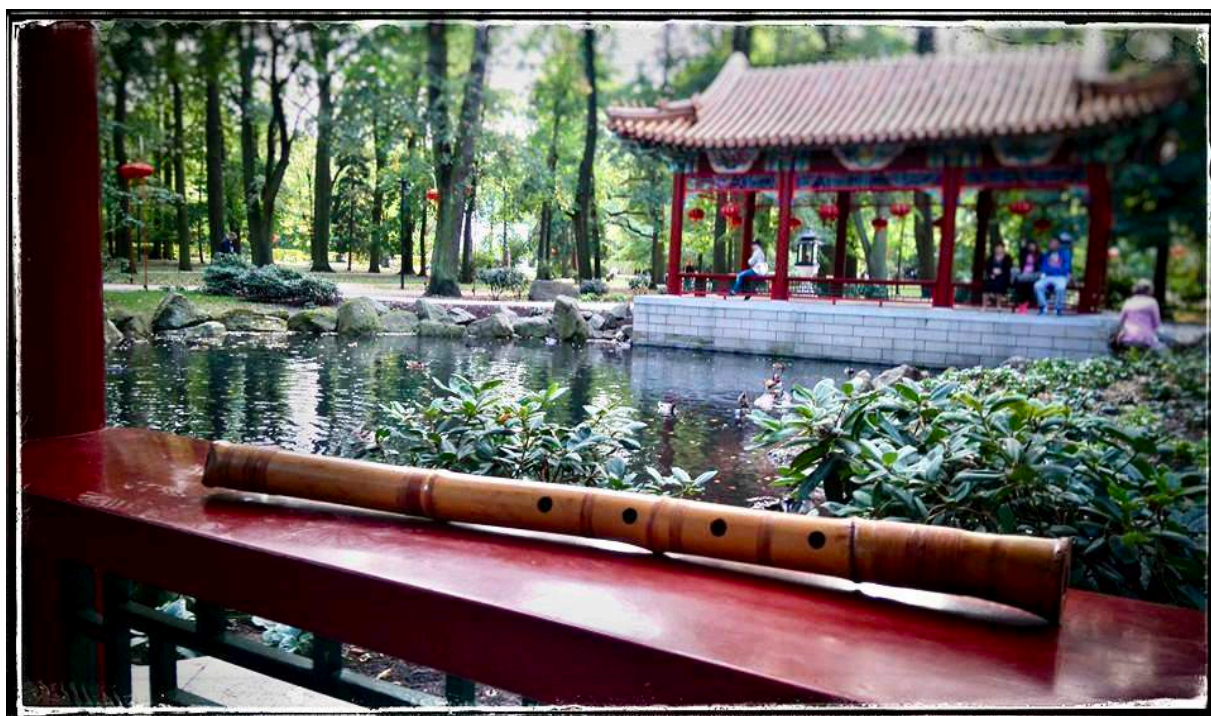
⁴⁸ *Xiao* – a traditional bamboo recorder from China. A predecessor of the Japanese *shakuhachi*. The instrument is part of the private flute collection of Katarzyna Gacek-Duda (see: p. 115).

⁴⁹ *Komoso* – *zen* monks playing the characteristic *shakuhachi* for meditation. *Zen* monks meditated and traversed Japan as beggars.

therefore will express himself and hear in a different way. The key point is to relay the art developing over centuries. Japanese masters believe that individuality of a man will emerge on its own. In order to learn how to play the *shakuhachi*, the master first has to wish to accept the student. It is a quality that distinguishes the Japanese system; in Europe an individual with adequate financial resources can learn from the master while in Japan, in order to learn from the master, you need to deserve it⁵⁰.

a) *Suizen*⁵¹ – selected technique of the *shakuhachi* playing

In the *suizen* technique, the purpose of the practice is internal development prevailing in *Zen* teachings. This purpose has to be chosen on a voluntary basis. It is also a difference between the Japanese and European approach to the learning. The purpose of the Japanese school of the *shakuhachi* is to achieve internal development which lasts throughout the entire life.



During meditation, the *shakuhachi* sound has to be clear and soft. Any physical tension has to be relaxed, e.g. back, shoulder, arm, finger, lip and throat tension⁵². When exhaling, the player is slightly bent forward. In the *Voice* by Toru Takemitsu for the modern flute, the exhaling moment is exposed by the design of the composer. Following the so-called exhaling you need to wait a second or two before closing the mouth and producing a delicate sound and then start another inhaling. During the inhaling, the body returns to the upright position. In Buddhism, in

⁵⁰ I. Pietraszewski, *Shakuhachi w praktyce zen (suizen)* [*Shakuhachi in Zen Practice (Suizen)*], *op.cit.*

⁵¹ *Suizen* is a meditation through sound practiced in Japan for centuries by the *Komuso* monks. The most important element of the meditation is not the musical level but the unity of the body, breath and mind of the performer. It is a peculiar meditation aided by the flute and a collection of hundreds of years old compositions (see: I. Pietraszewski, *Shakuhachi w praktyce zen (suizen)* [*Shakuhachi in Zen Practice (Suizen)*], *op.cit.*).

⁵² J. Keister, *The Shakuhachi as Spiritual Tool*, Asian Music, Spring – Summer, 2004.

order to quieten down the mind you first need to calm your body. The so-called long sounds, in the traditional *shakuhachi* playing technique were regarded as dry and dead and therefore during the performance the ornamentation played an important role. To achieve the so-called “live sounds”, a number of performance techniques were used which are linked with the breathing control. There is a number of the *shakuhachi* techniques and schools such as for example *kinko-ryuu* developed to commemorate Kinko the Samurai by Kurosawa⁵³ and the *tozan-ryuu* – the youngest school established by Nakao Tozana⁵⁴. Those schools use different musical notations. The most important thing is, however, the contact with the teacher - master.



The Yokobue flute (source: <https://www.etsy.com/pl/listing/648037792/antique-yokobue-japan-zen-flute>, [12th May, 2019]).

With regard to the understanding of the ideals of the Japanese music, one has to reach the works of the Japanese literature. It allows to understand the role the nature played in the social – cultural life of Japan in the past.

Japanese poetry similarly to music is characterised with irregularity and lack of symmetry. When the ancient Greeks perceived changes in nature, they started seeking certainty and absolute in an ideal world thus determining the paths of cultural development of Europe. At the same time, the Japanese people had to face powerful elements. They built their worldview upon the limited mountainous ground based on the sense of futility and passing away. Their philosophical and religious views developed their metaphysical character and strength forming the basis for

⁵³ Kinko Kurosawa – *zen* monk, komuso. A musician travelling around Japan writing down spiritual pieces of other *Zen* monks playing the *shakuhachi*. He prepared a list of the pieces which form a collection of the repertoire of the *shakuhachi kinko-ryuu* school.

⁵⁴ Nakao Tozan – one of the most prominent Japanese representatives of the *shakuhachi* playing school. His methods and novel approach to the instruments was a breakthrough in the contemporary technique and ways of thinking about the Japanese flute playing. He lived in the period 1876–1956. (see: komuso.com).

the emergence of new aesthetic ideas⁵⁵.

In pursuit of familiarising with the dash of the Japanese culture, it is worth referring to a beautiful fragment of the work entitled: *Makura no soshi*⁵⁶ by Sei Shōnagon⁵⁷, who described another, i.e. Japanese transverse flute called *yokobue* in such a way:

The Yokobue transverse flute

The Yokobue transverse flute is very beautiful,

When its sound approaches you from a distance, it sounds closer and closer to float away again.

It is beautiful. You think that it is close and at this very moment it starts to go away from you.

The sound comes from far away, it is fading – and you pause awestricken.

Whether you travel on a cart, walk, or ride on a horseback – the flute can always be with you next to your heart, nobody can see it – that is why there is no better instrument.

And what about the moment when you hear a well-known melody – it is a great joy.

And you feel even more joyful when you find a very beautiful flute on the pillow which someone departing at dawn ... left.

He sends the messenger and you solemnly give the lost item wrapped in paper. Almost as an official letter.

The sho harmonica. They can be heard with the greatest pleasure in the moonlight when their tone comes from the depth of the coach. The player is difficult to recognise as the curtain conceals him.

You begin to wonder – who is he? And what does the face of the player look like?

A similar situation occurs with the transverse flute – dexterity matters.

The *hichiriki* oboe is too noisy. Among the autumn insect you will find the screaming crickets, *kutsuwamushi* – those are even worse- nobody wants to listen to them from a close distance.

Because bad music is the most difficult to endure. But on the days of celebration of our temples, Kamo and Iwashimiz, the things were different.

Before the musician appeared before the fairest of all face of his highness, somewhere in the temple, he tried his flute playing delightfully. And suddenly the oboe joins the flute – how extraordinary! Sighs and questions come with such a curiosity that it seems that the hair of ladies and princes, evenly combed are about to curve in curls unexpectedly ... and at last, walking majestically to the rhythm of the zither and the fue flute there they come – both so

⁵⁵ T. Izutsu, *Metafizyczne tło teorii nō. Analiza „dziewięciu etapów” Zeamiiego* [Metaphysical Background of the Nō Theory. An Analysis of Zeami's "Nine Stages"], [in:] *Estetyka japońska. Wymiary przestrzeni. Antologia* [Japanese Aesthetic. Spatial Dimensions. An Anthology] (vol. I), ed. K. Wilkoszewska, Cracow, 2010, p. 77.

⁵⁶ Sei Shōnagon *Zapiski spod wezgłowia, czyli notatnik osobisty* [Records from Underneath the Headboard, or a Personal Diary], Wydawnictwo Akademickie Dialog, Warsaw, 2013.

⁵⁷ Sei Shōnagon – a poet and author of the “diary”, daughter of the poet - *Motosuke*, lady-in-waiting at the court of empress *Sadako*. She presented her observations, insights and reflections with regard to, among other things, attitude towards nature in the diary. She was a sensitive and subtle individual. Her literary work was characterized with an extraordinary style. Her notes were the determiner of the aesthetic canon of sensitivity to nature.

beautiful and charming⁵⁸.

⁵⁸ Quoted from: *Estetyka japońska [Japanese Aesthetics]*, ed. K. Wilkoszewska, p. 9.

III. The transverse flute – imitating the sound of selected ethnic aerophones from Poland and the world

The transverse flute gained greatest popularity as a solo and orchestra instrument. In folk music, whether ethnic or Polish, it is not a popular instrument; however, its presence is noticeable in the “backyard” music and folk bands. Furthermore, its use by wedding bands⁵⁹ of Trójwieś Beskidzka⁶⁰ has also been noted. Flutes with cone-shaped bodies, commonly referred to as folk flutes were made across Europe throughout the 19th and 20th centuries. Poles also used them in folk bands. Flutes were designed in such a way as to enable the performance of the third octave at the expense of lower sounds and tonalities. The transverse flute - collaborating with ethnic instruments used in folk music - has always been distinguished by its intonation mess and “fluffy” sound as well as exaggerated domination of high tones, which only confirmed how difficult instrument from intonation perspective it was.

Toru Takemitsu, an outstanding Japanese composer, in his extraordinary piece entitled *Voice*, ventured to imitate the Japanese flute of *shakuhachi* using the transverse flute. Takemitsu’s performance technique was an ideal reflection of the sound of *shakuhachi*. The determiner suggesting that *Voice* is performed on the transverse flute is metal. The silver instrument – as golden flute – has a characteristic sound. Modern transverse flutes have a number of systemic solutions which offer a possibility of imitating novel sounds.

Observing ethnic aerophones used on stage and exploring the blowing technique or studying certain ethnic styles, which to a large extent depend on ornamentation, accents and scale characteristic of a particular region, proves the pioneering nature of ethnic performance techniques when used on the modern transverse flute. Quarter tones are possible in instruments whose keys are open. In instruments with closed keys, quarter-tones are more difficult but possible to perform. Ethnic sound characteristics of the transverse flute is possible by changing the blowing technique. Practising on other ethnic aerophones is also important. A musician playing only the modern flute may have a very modest understanding of the folk ethnic music. Listening to varied, folk and ethnic music from all over the world plays a very important role in ethnic flute playing studies as it allows us to understand the foundations of ethnic reality of a particular country or region.

Modern wooden flute is not popular in Poland although each musical genre played on it sounds fascinating with the ethnic music’s nature perfectly reflected in its sounding. Imitation of ethnic modern flute is visible in the aforementioned artistic creation of Toru Takemitsu, where the blowing technique is suggestive of awareness of the sounds performed on *shakuhachi*.

The artistic output of Ian Clarke⁶¹ is yet another novel step in performance technique even

⁵⁹ Information relayed by the elder promoters of folk music from Istebna.

⁶⁰ Trójwieś Beskidzka – is the name referring to three villages in the Silesian Beskids, i.e. Jaworzynka, Istebna, and Koniaków where the peculiar folklore and traditions of the Silesian mountaineers has been preserved until the present day.

⁶¹ Ian Clarke – British composer and flautist, composer of novel solutions with respect to the sound and

though Clarke does not refer to ethnic inspirations in it. His works offer a series of uncommon descriptive legends of musical pieces combined with novel performance techniques. In his musical creation, Robert Dick is a founder of a new technique. He is one of the promoters of contemporary transverse flute music and he described his new technique in the book entitled: *Tone Development Book*. It includes a table of grip techniques which, among other things, were also referred to as the “bamboo grips”. It means that the sound is not generated by blowing the air or changing the position but by applying a specialist grip. Indeed, those guidelines allow to hear the tones and sounds alluding to aerophones made from bamboo.

The Dutch flute player, i.e. Eva Kingma⁶² is worth mentioning here as she created and patented the system of playing quarter-tones on the transverse flute.

The sounding of the piece in an artistic creation is a combination of tones, overblowing, or key beating and various kinds of glissandos. The most frequent glissandos are those which are made with the movement of the head or instrument. Another aspect of performance are wind effects and playing and singing at the same time with not necessarily one tone being used as the drone. With sufficient practice in this technique, it is possible to play and sing a duet sound on the transverse flute, which is an allusion to *dvoyankas* or *auloses*. A number of compositions involve speaking to the flute which is equivalent to the passing of the tone through the air to produce a sound. Texts or words play a random role or allude to a certain theme of the piece. The technique which is based on the ethnic expression is at the same time a kind of play with the silence, blowing, colour, and penetration. Where the musician is familiar with the phrasing or ornamentation of the ethnic flutes of the world, the only limitation during the performance of the ethnic-music inspired pieces will be his or her own imagination.

Takemitsu believed that emphasis on the lasting sound is what penetrates the world. His creation is characterised with the pursuit of balance between the Japanese tradition and the Western world culture. Therefore, in search of this atmosphere, he used multiple techniques of the instrument⁶³. An inspiration for creating the music for the modern flute is not only the musical proposal of Toru Takemitsu or Robert Dick, but rather the symphony of nature, i.e. the world of nature, water and the singing of birds.

The scientific work referred to above will also comprise compositions inspired by the music of the British Isles. As there exists a number of publications, magazines and schools for the *Irish flute* or *whistle tin*, the description of the regional Irish ornamentation was excluded in favour of less known in Europe ethnic aerophones.

performance based on the flute technique. His best-known compositions include, among other things, *Orange Tree* and *Hypnosis*. (see: <http://www.ianclarke.net/page4.html>).

⁶² Eva Kingma and the quarter-tone flute, <https://www.youtube.com/watch?v=F3GD0Omr4Z0>, [13th January, 2021].

⁶³ U. Strubinsky, comment on the recording entitled: *Zeitgenoessische Kompositionen fuer Floete solo* by Gisela Mashayekhi-Beer, German Flautist, professor at Uniwersitaet fuer Musik und Darstellende Kunst, Vienna. As one of the few European flautists, she worked on the *Voice* composition for the solo flute with Toru Takemitsu himself.

III.a Possibilities and limitations

The transverse flute is an instrument with versatile technical and expression possibilities. A long-lasting experience and an attempt at imitating ethnic sounds on it revealed a number of possibilities offered by this instrument in the context of the *world music* and *modern music*. The unique possibilities of the instrument include a palette of colours which can be changed due to different positioning of the flute. Ethnic vibrato, or the soft vibrato, is not only achieved through blowing but also through the fingering through the open key holes. In instruments without additional openings in the key, this performance technique is not possible with fingering. The unique possibilities of the flute include combination of the voice and sound at the same time in different connotations, i.e. unison or duet. In teaching practice, it turned out to be one of the most difficult technical elements. Simultaneous playing and singing of the same melody an octave apart or in the same octave are a little easier than creating two different melodies while playing and singing. Through modification of lips on the flute, it is possible to obtain a number of intonation colours and intonation deviations favoured by Arabic, Bulgarian or Indian music where quarter-tones and the uneven equal temperament instrument are determiners of the *world music*, or traditional music style. The best sound effects in the context of the *world music* are obtained on *wooden flutes*. There are several companies in the world manufacturing instruments from black wood. The wooden flutes with the most beautiful sounds and tones are made by Japanese Sankyo and American Powell. Also, Yamaha manufactures wooden instruments. In Poland, the wooden *transverse flute* is still not very popular. The gold-plated flutes are most common among professional flute performers in Poland. The sound of the golden flute is extremely soft and deep at the same time. The sound of this instrument is characteristic of the works of Claude Debussy, or Henry Dutilleux – a French composer and teacher.

On the global scene, amazing colour possibilities were presented by the flute company of Mancke which introduced a number of wooden flute heads. The flute head is responsible for the quality of the sound and bar techniques. Mancke has a dozen or so heads made from, among other things: *olive wood*, *cocoa wood*, *rosewood*, *palisander*, *grenadillo*, etc. apart from that, Mancke also experiments with the combination of wood and gold, white gold, or wood and silver. Each of the variations offers a different sound.

In the context of the described work, the transverse wooden flute with silver, or gold keys but without metal edge on the mouthpiece may best represent the repertoire of the *world music for flute*.

The ethnic flutes offer performance possibilities but they do not always allow to perform a number of chromatic sounds on them. The modern transverse flute represents a full range of chromatic sounds with the broad ambitus.

Offering vast possibilities, the flute has its limitations, too. The characteristics of the instrument determines performance limitations which, among other things, derive not only from the construction of the instrument, or lip blowing technique, but even more importantly are caused the mechanism as such.

99% of ethnic flutes are open instruments which in itself changes their sound to more

natural. The mechanics of the transverse flute has effect on limited ability to imitate Arabic sounds where glissando or intonation deviations are most important. Quarter-tones in *Arabic neys* are often generated by the scale of the instrument while with the transverse flute, imitating the Middle East music requires the technique combining head movement with the raising or lowering of the mouth corners.

A limitation of the *transverse flute* when playing ethnic sounds may be the aforesaid material from which the instrument is made. Professional wooden transverse flutes are quite expensive and not everyone may afford them. Performance of the *world music* on metal transverse flutes is not a good aesthetic direction.

III.b Imitating ethnic sounds – ornamentation

The legend of the author's ethnic ornamentation for modern transverse flute deriving from familiarisation with the mechanisms of the selected ethnic flutes of the world is a proposal of the ethnic language for the ethnic flutes, or transverse flute.

In this thesis, the focus is on the author's miniature or ethnic impression. These are not very complicated compositions. Their purpose is to keep the performer in the climate of a particular ethnic space and improvisation. Ethnic miniature may be played exactly as the form requires; there is, however, consent to the improvisation, or developed theme in the form of variation.

At the advanced performance level, improvisation in ethnic music does not have to be understood as intuitiveness. Ethnic minorities where the learning of the musical tradition is realised through the melody and rhythm played by ear is usually improvised intuitively. It stems from the fact that they do now have the knowledge of musical theory, or harmony. It is also linked with the instrument. Improvisation on a *5-holed pipe* with the pentatonic scale is different from the improvisation on the *Bulgarian kavalu*, where besides full chromatics, there are almost 4 octaves. Depending on the musician's advancement, improvisation may be intuitive, „following the melody”, or a carefully thought harmonization at best.

The pieces which are called miniatures, or ethnic impressions, due to simple, expandable performance form offer possibilities where only the imagination is the limit. The notation reading should not be difficult for intermediate students. The performance technique of the described work is intended for the intermediate and advanced musicians playing the transverse flute.

The ornamentation is deliberately referred to as “ethnic” for it is important not to regard the transverse flute as the instrument which is capable of re-creating the regional thought in one hundred per cent. The flute preserves its specificity and variety which becomes prominent after drawing inspiration from a particular regional motive or ornamentation.

The aesthetic and artistic parts are very important. The ornamentation has to be performed in a very precise manner and it is vital for the performer to be aware where each ornament or manner of performance come from. The musician should be familiar with the cultural repertoire of the ethnic flute music in order to express the sounds by proper directing of the phrase in which case the sounds may be compared to words. The more words we know, the better their

use and communication of the particular ethnic repertoire.

Flute players performing ethnic music are required to use the ornamentation referred to below in an artistic way. It means that when you are familiar with the ethnic ornamentation, it is possible to create and compose musical pieces based on pan-regional ornaments, accents, grupettos, or mordents. Also, here imagination is the only limit to the possibilities and artistic framework.

Apart from the ethnic knowledge, knowledge of the genres, musical styles which were developed in Poland or Europe over the history – from ancient times until the present may be useful. By exploring the styles of the Baroque, or the impressionism, creation of the artistic vision of ethnic pieces may become even more visionary as it will be enriched with a vast perspective (path) of the musical repertoire. The important thing is to use the genres and stylistics which once appeared on the world's stages.

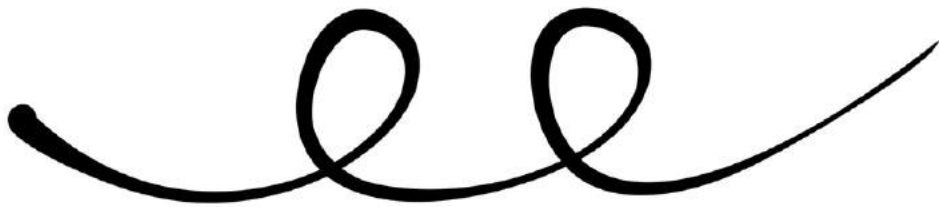
The following legend comprises author's proposals of ornamentation concentrated in the simplest and most comprehensive manner (owing to the long-term musical experience and listening into the nature of the "sounds of Earth"); they originated in the Beskids and Podhale region to be further expanded to the experiences from Israel (*ney*), Ireland (*Irish flute, whistle tin*), Slovakia (*Slovak pipe*), Bulgaria (*Bulgarian kaval*), Turkey (*Turkish ney*), Egypt (*Egyptian ney*), Ukraine (*sopilka*), Japan (*shakuchachi*), China (*dizhi, houlusi, or xiao*), the United States and Canada (*native American flute*), Iran (*Persian ney*), as well as India (*bansuri*).

The presented ornamentation is not described in traditional musical terms (notation) but first and foremost it stems from the technical and artistic inspiration within the limits of the transverse flute imitating the musical quality of the selected ethnic aerophones of the world.

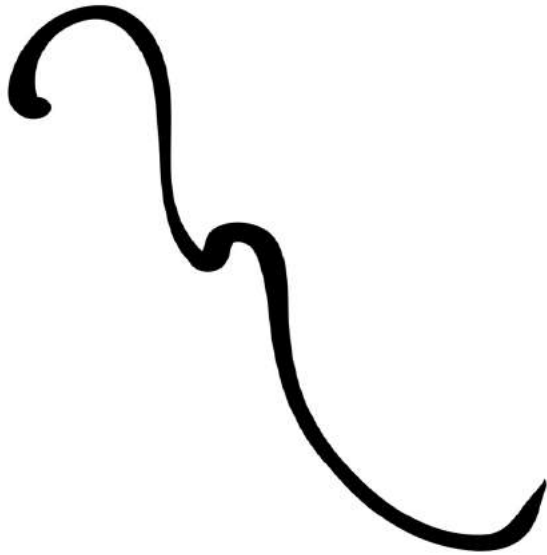
Colour ornamentation – a number of flute sounds making up the sound spectrum of an instrument. An Earth theatre is also a series of colours and intonation deviations, trills, overblowing, which, if applied in a conscious manner and based on correct technique, provide a magnificent colour of each ethnic sound.

The performance technique of colour ornamentation depends on the aesthetics, knowledge and imagination potential of the performer. With the knowledge of the colour and ornamentation of the ethnic flutes, it is possible to develop author's performance colouring.

The artistic ornamentation includes all sorts of appoggiaturas, trills, overblowing and short staccatos. To achieve the ethnic sounding, the keys under the right hand can be used. Although rarely used, when used correctly, they may be carriers of an extremely interesting sound. The colour ornamentation should be used as fillers or decoration of the musical piece. The colour ornamentation should be acquired through practice. Furthermore, practice should also be through learning the piece and then, available space allowing (i.e. presence of a linking element between the stanzas, several bard spaces between refrains, etc.), a sound produced by overblowing, or „through-swish” can be added. The following are several proposals of ethnic performance technique for transverse flute including author's graphics.



Ethnic vibrato – the performer plays a full, simple sound while the vibrato is obtained by fingertip moving forwards, or backwards, over the open key. The most important element of the ethnic vibrato is the conscious use of the diaphragm to” swell up” individual sounds. As in some classical flute studies, it is not possible to use the vibrato throughout the entire piece. Ethnic vibrato is meant to be used as a phrase softener. It does not need not be performed evenly as in classical music.



Soft vibrato – a type of shortened vibrato whose aim is to accentuate one or two notes of a musical piece. It is obtained by twisting the instrument during the out-blowing or in-blowing. It may also be obtained by leaning the head forwards or backwards and used in places requiring accentuation, or extending the note (standing note).



Ethno-overblowing – is a characteristic conclusion of a musical piece, phrase, or motive, inspired by the so-called “*wysk*”, typical of the so-called *white voice*⁶⁴. The sound ends with a slight “jump” to the last sound of the phrase taking the form of overblowing within the interval depending on the harmony.

In order to accomplish the Slavic overblowing at the end of the phrase, a single short sound should be added to the last note of the piece phrase at the fifth, fourth or sixth (depending on the harmony). It has to be played within split second and it may not be a complete flute sound; it has to be delicately forced in order to be able to hear the constituent tone of the prime sound.

⁶⁴ White voice – a characteristic variety of singing where the loudness and brightness of the voice is more important than the articulation. It is a singing technique characteristic of the ethnic folk music. In Poland, the most popular region where this singing technique is used is Podhale and the Beskids.

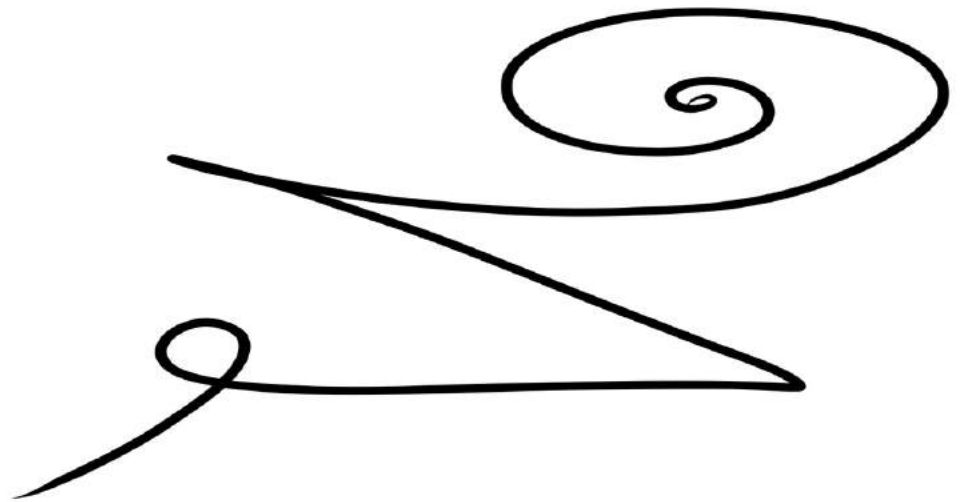


Kaba – it is the name of the blowing technique characteristic of the first octave of the *Bulgarian kaval* or *ney* (also referred to as the *kavalem*⁶⁵). We can achieve this colour on the *transverse flute* by leaning the mouthpiece towards yourself in an attempt at finding the sound between the upper and lower octave which, to a large extent, lacks the soprano part. We begin the sound in the “aerial” part with consonant “h”. The tongue is positioned at the bottom of the jaw in order not to disturb the air stream.

As a technique, *Kaba* has been known in the Balkans and the Middle East and is characteristic of the first octave of the end-blown instruments. It is a sound with a large quantity of air which coincides (resonates) with the sound of the lower octave. This sound has a characteristic harsh sound resembling the sound of Earth⁶⁶.

⁶⁵ The name *kaval* refers to the end-blown diagonal flutes of the South-Eastern Europe as well as the Middle East or North Africa. The diagonal flute, which probably appeared was used in Poland, is also classified as *kaval* due to the blowing technique.

⁶⁶ The sound or sounds of Earth. A common term referring to the original sounds of ethnic instruments. End-blown flutes are one of the oldest instruments of the world. Their tone and tuning invoke the oldest acoustic sounds in the history of the world.



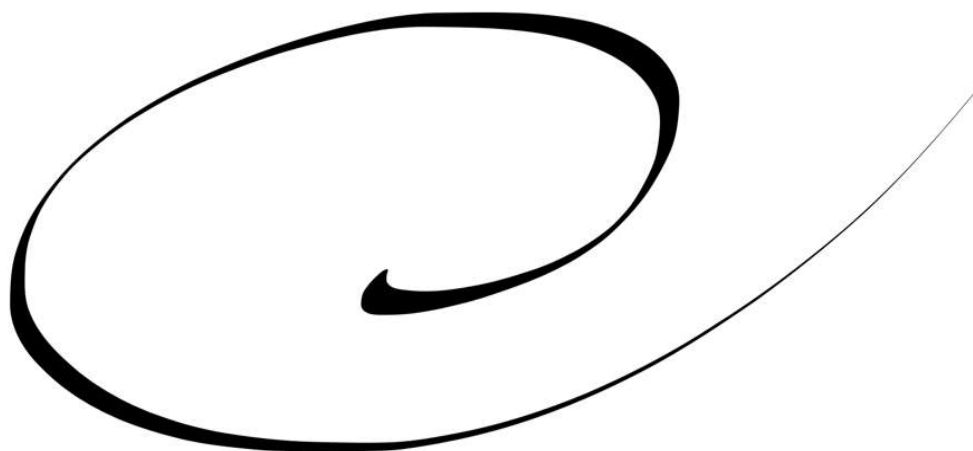
*Arabic “ourbe” sound*⁶⁷ – in pursuit of the Arabic performance style, we are expected and required to listen to the *Egyptian, Israeli or Persian neys*. The instruments are held diagonally and so the *transverse* flute has to be leaned to find a juicy colour of the sound, 30 % filled with air. Each passing between the sounds has to be obtained through ethnic vibrato.

The performance technique is closer to the *ney* technique. The right hand moves down together with the instrument. The mouthpiece as well as its edge are not directly under the lower lip but are diagonally leaning downwards. The sound is produced by hitting the lower part of the mouthpiece with air stream. The upper and lower lips are not in a typical position for the transverse flute; they are slightly relaxed. The opening between the upper and the lower lip is larger.

To achieve this position, it is preferred to blow the air stream into the flute with syllable “hy”. The beginning of the practice should be very delicate.

In this ornamentation, we do not look for the colour without air. The Arabic or Bulgarian sounding comprises round sounds cuddled up to the large amount of air.

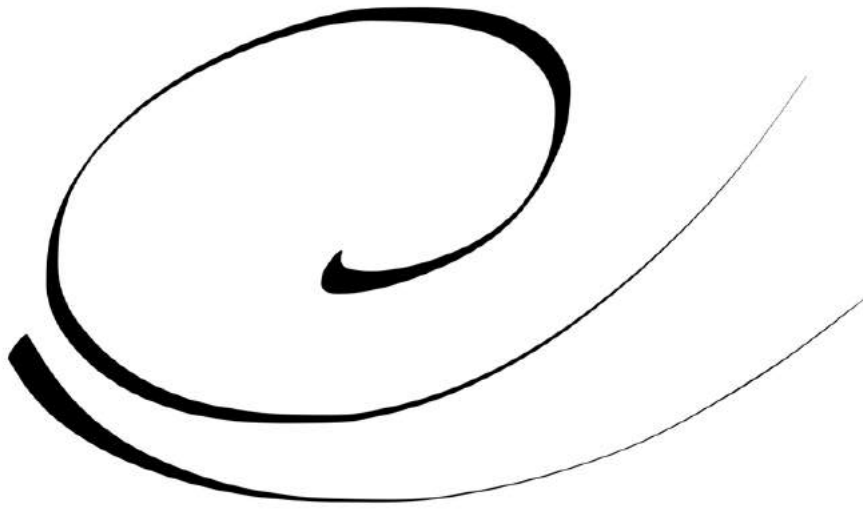
⁶⁷ *Ourbe* – an Arabic word denoting the specific nature of the Arabic sound, its peculiar originality and specific “waving”, or vibratos, are also based on microtones.



Flute-playing-and-singing – simultaneous playing and singing of the same melody, or improvisation. An extremely difficult performance technique as it requires singing and playing the same musical thought at the same time. *Flute-singing* can be obtained in two ways:

1. The sung sound is for example g and we try to put the instrument underneath the lips in an attempt to find the residues of the air. The air stream is directed into the instrument without stopping the singing.
2. We play the gl sound and at the same time we try to sing the sound without stopping the playing.

It is a very time-consuming technique. The specification of this ornamentation is slowly being developed through a trial-and-error method. Once the *flute-playing-and-singing* skill has been sufficiently practised, it does not take long to think about one sound, or another, and it is possible to move on to the *double flute-playing-and-singing* technique.



Double flute-playing-and-singing – as the name suggests, in this case, we have a double melody line. The flute's role is to provide the basic sound and the voice plays the leading role. In some pieces, it is admissible to apply the reverse.

The performance technique is the same as in *flute-playing-and-singing*; however, the most difficult aspect is intonation and the ability to play and sing two resonating sounds as a duet. The very sign suggests improvisation of two inter-penetrating voices. The musical pieces may include the second voice using musical notation. In fully improvised pieces, it suffices to mark the place with the above given sign and the number of envisaged bars in solos in the *double flute-playing-and-singing*.



Ethnic flutter-tonguing – the flutter-tonguing is achieved through the “tr” syllable with the back *frullato* achieved by applying the “hr” syllable. In ethnic music, the “tr” flutter-tonguing works much better. It can also be applied in African music where these voices are used intuitively by ethnic singers. The flutter-tonguing is used in classical and jazz music as an ornament or in fast fingering where it replaces the tremolo. Ethnic flutter-tonguing in the *world music* is used with a large amount of air. The performance apparatus is more relaxed during the blowing and open. The sound is a little “tarnished”.



Flute-swish – an author’s technique, or ethnic articulation, i.e. a number of Polish swishes, soundless syllables with an incomplete flute sound. The technique consists in the ability to manoeuvre the tongue between the air and the lower and upper lips and the skill to pronounce individual words. The flute-swish may be a rhythmic imitation. It is one of the greatest possibilities of playing with the instrument which positions it among a range of drum instruments. Those are other articulation directions than beatbox and, therefore, they should not be classified into the same category.

Polish letters and Polish language are the best carriers of air and swish sounds. Therefore, selected Polish phrases may be the basis for interesting sounds.

When producing the flute-swish with the “s” or “ś” articulation, we try to roll the tongue and push the air into it. Then we obtain a fully aired sound. All letters or words are produced in an exaggerated manner by “pushing” all the air into the mouthpiece.

Selected syllables, letters and words used in the flute-swish technique are as follows:

- *Sss, sh, shshshia,*
- *Ha, hy, hi,*

- *Tchiki, tchiki, tchiki,*
- *Ts, ti,*
- *Osss,*
- *Soshshshie,*
- *Sh,*
- *Tch,*
- *Tiki,*
- *Asia,*
- *Huuk,*
- *Hi,*
- *Sha,*
- *Senk,*
- *Pol,*
- *Taka Shiaka,*
- *Shiaka Tuk Tuck,*
- *Harrr-mi-derrrr,*
- *Po-c-ci-to,*
- *Wi-zh-ke- mi-dai – we talk to the instrument phonetically: wizhkemidai*
- *Pies so-bie-shedl,*
- *Sa-m-gl-ska,*

The flute-swish technique includes nose or mouth breathing which result in a specific of rustle which can be unorthodoxly interwoven into the writing of flute-swish pieces in such a way that the listener has an impression that we do not take our breath at the defined point. The breath becomes part of the piece and therefore may be regarded as part of the flute-swish technique. It is an art of its own kind allowing to create an unbelievable spectrum of percussion possibilities on the transverse flute.

The artistic part comprises two pieces where the flute-swish technique found its particular application, i.e. *Flute-swish* and *Ethnoflutes Arabica*.

The ornament presented above are used by marking the melody line with the selected sign or in the legend of a particular piece by indicating the ornamentation palette suggested for use. In the pieces composed with the use of musical notation, the individual notes can be marked with a sign used to mark the Baroque ornamentation.

The above discussed ornamentation is a proposal of an ethnic tongue for transverse flute.

Other, selected ornaments used in ethnic music include *grace note* – Indian appoggiaturas⁶⁸ performed during each solo cantilena on Indian flutes.

*Cut, Strike, Tap, Long Rolls, Short Rolls, Cranns, Double – Cut Rolls*⁶⁹ are ornaments characteristic of Irish music and are adopted from classical music; however, having been used for a long period of time, they evolved into the sound signifying and characteristic solely of traditional or ethnic music of Ireland. The ornamentation figures are present in a number of cultures. The instrument characteristics, performance culture and tradition result in a different sound of each culture. Irish rolls resemble Bulgarian ornaments and although they are almost identical, their sounding is completely different when played on *kaval* and *Irish flute*.

⁶⁸ *Grace note* – a popular ornament performed on the flutes used by the people of North America. The same term is also used in Ireland (rumour).

⁶⁹ G. Larsen, *The Essential Guide to Irish Flute and Tin Whistle*, Melbay, pp. 111–120.

IV. Performance issues linked with the recorded pieces

The artistic part includes among other things simple, intermediate, or advanced miniatures, etudes, or impressions on ethnic flutes which, to a larger or smaller extent, offered inspiration for developing an imitation of ethnic ornamentation on transverse flute. The key instruments, which have contributed to the development of ornamentation and the flute-swish technique were *shakuhachi*, *native American flute* and *Arabic ney*.

The artistic part is a collection of melodies and improvisations performed on genuine ethnic instruments and the transverse flute imitating the sounding of ethnic aerophones in an artistic context.

Selected works together with note examples represent the imitating possibilities of the transverse flute. Apart from that, there are several musical pieces for the flute without note example but provided with the author's ornamentation.

The artistic creation is in the form of studio recordings and original live recordings made in the Timna Desert (Israel), a province near Belfast, Ireland together with a prominent bagpiper Tiarnan O'Duinnchin as well as live recordings from Jerusalem, Palestinian Territories and Negev Desert (Israel).

The character of the artistic part is innovative, original, artistic and experimental. The last five years of research and own professional experiences resulted in deeper knowledge of the European and Asian cultures.

Pieces 1 to 13 are miniatures for ethnic flutes. Pieces 14 to 22 are for the transverse flute and include ethnic ornamentation written as notes (in fragments). Positions from 23 to 29 are additional pieces imitating the sounding of ethnic aerophones on the transverse flute.

The artistic part also includes an annex presenting both author's ornamentation sounds as discussed in the preceding chapter as well as the sounding of selected ethnic flutes of the world.



Aliquot flutes from the collection of Katarzyna Gacek-Duda. Photograph by: Marcin Iskrzycki.

1. Mazureczek [A Little Mazurka]

Composer: Katarzyna Gacek-Duda

Performed by: Katarzyna Gacek-Duda, *dvoyanka C*, *dvoyanka G*

The melody was inspired by the Polish folk music. It is performed on two *dvoyankas* with the drone sound. *Dvoyanka C* is the brighter, melody-leading instrument. *Dvoyanka G* plays the role of the Polish drum emphasising the rhythm of mazurka.

2. Wigilijna Dwojaczka [Christmas Eve Dvoyachka]

Melody for *dvoyanka* solo

Performed by: Katarzyna Gacek-Duda

Dvoyanka consists of two, inter-connected pipes one of which is provided with the fingering part while the other has a drone part. All positions and compositions for *dvoyanka* take the listener into the long-gone world. The alternating drone sound will always denote the older, traditional music. The essence of the piece is to keep the intonation in the drone in each octave. The *dvoyanka* drone may have some intonation deviations. Where the performer does make a professional use of the diaphragm mechanism, the intonation deviations may considerably affect the piece quality.



Dvoyanka. Photograph by: Leszek Duda

3. Hala [The Pasture]

Performed by: Królestwo Beskidu in the following composition:

Katarzyna Gacek-Duda, *salasnik* pipe, vocal

Martin Wałach, vocal, bass

Beniamin Wałach, vocal, viola

A composition by Katarzyna Gacek-Duda, inspired by the music of the Żywiec Beskids. The background of the ethnic miniature is provided by the *salasnik pipe*. One of the more popular instruments of the Carpathian culture of the Silesian Beskids. The piece consists of two parts: the aforementioned melody inspired by the music of the Beskids and the shepherd's melody from the Trójwieś Beskidzka region.

4. Cichy wiatr [Silent Wind]

A piece by Katarzyna Gacek – Duda written in the period 2007-2008 in Vienna during the long-lasting months of nostalgia for the country

Performed by: Królestwo Beskidu in the following composition:

Katarzyna Gacek-Duda, pipe, modern transverse wooden flute

Marcin Sidor, violin

Beniamin Wałach, viola

Martin Wałach, bass

Joanna Piszczelok, piano

The piece alludes to the Beskids music and the scale characteristic of the mountaineers' music commonly referred to as the *walaska*. The first stanza of the piece was performed on the *6-holed pipes* frequently encountered in the Beskids and Podhale region. The second stanza is a dialogue between the *violin* and the *modern transverse flute*. The third stanza is a unison of the *pipe* and the *violine*, which is a beautiful combination of the character reminding of the music of the northern part of Europe. In this composition, you will hear the *piano* adding the feature of nobility and dignity to the music. The *piano* is a factor which if skilfully combined with the ethnic instruments becomes a characteristic complement to the colour within the experimental aspect.

5. Carpatica

Ethnic etudes, Katarzyna Gacek-Duda, Paulina Stateczna

Performed by: Katarzyna Gacek-Duda, flute

Paulina Stateczna, piano

The etudes for the *6-holed pipe* and an accompanying instrument inspired by the Carpathian and Hungarian music. It contains a number of motives characteristic of Hungarian music and is intended for the melodies often performed on the violin by the Beskids mountaineers.

6. Mountain Silence

Composer: Katarzyna Gacek-Duda

Performed by: Katarzyna Gacek-Duda, native American flute

Paulina Stateczna, piano

Indian music impression

The intro of the composition is a singing alluding to holy Indian “end of day” meetings. The entire piece uses the pentatonic scale also used to tune the instrument.

The piece is performed entirely at the 444 frequencies. For this reason, the preferred accompanying instruments are string or stringed instruments which can be easily tuned to the flute.

If we perform the piece with the accompaniment of a keyboard instrument, we need to look to such techniques which will allow a change and higher instrument tuning.

To obtain a mystical character of the piece, good acoustics is preferred or support from the sound engineer superimposing the repetition effect and delicate echoing at the right places. The echoing effect is superimposed on the piece. If the instrument is tuned within the 440–443 frequency, it may be performed in a concert hall with the accompaniment of the piano.

An inspiration for the Indian music impression was the savage and beautiful nature of North America. When playing, Indians look to the horizon and perform the melodies as they see the heights, valleys, mountains and the sky. Where the clouds uncover the mountains, their melody rises. If the eyes of the musician look down upon the valleys, the tunes go down, too.

7. *Under the City*

Miniature for ney and darbuka

Composer: Katarzyna Gacek-Duda

Performed by: Katarzyna Gacek-Duda, ney

Patryk Zakrzewski, darbuka

The theme draws on the musical tradition of Anatolia, Turkey.

The ethnic miniature for the *Arabic ney* and *darbuka* recorded in Jerusalem during the meetings with Bedouins who provided inspiration for the theme which is also rooted in the Kurd music.

Darbuka is an instrument whose main purpose is to make noise. Very often, while watching weddings in the streets of Jerusalem, it can be observed that *darbuka* is instrument accompanying dancers passing to the wedding house. The *ney* and *darbuka* playing together may also be encountered during the 13th birthday ceremonies, commonly known as *Bar and Bat Mitzvah*. In Judaism, boys turning 13 are regarded as individuals who are required to fully abide by the Mosaic Law.



The photograph was taken in the Negev Desert in Palestinian Territories during the recording of the piece entitled: *Under the City* and *Shepherd*. Standing in the picture are Katarzyna Gacek-Duda, *ney* and Patryk Zakrzewski, *darbuka*, Israel, 2018.

8. *Pasterz* [Shepherd]

Ethnic miniature for voice, ney and darbukę

Composer: Katarzyna Gacek-Duda, Ghostman

Performed by: Ghostman, ethnic vocal

Katarzyna Gacek-Duda, Arabic ney
Patryk Zakrzewski, darbuka

The piece recorded in the Negev Desert, Palestinian Territories, is an improvisation of a dialogue between the *ney* and voice. *Darbuka* plays the role of a rhythmic accompaniment. The leading melody was inspired by the traditional Turkish Kurd music. The recurring melody is the cornerstone and the reference point of the entire musical miniature. The voice plays the role of an instrument and its objective is to expand the melody and variation with the vast acceptance of an extensive improvisation. The *Ney* repeats the first theme after each voice improvisation. The piece ends with coda.



A meeting with a Bedouin shepherd, Negev Desert, Palestinian Territories, Israel, 2018.

Picture by.: Leszek Duda

9. *Desert Crying*

Composer: Katarzyna Gacek-Duda

Performed by: Katarzyna Gacek-Duda, Slovak fujara

A piece for the *Slovak fujara*. The key aspect of the instrument is the ability to use its aliquot sound. The instrument has only three basic finger holes which form the basis for creating a melody. The technique of producing a sound and controlling it may be difficult. In the *Slovak fujara* – it is the original name of the instrument which has been on the UNESCO Representative List of Intangible Cultural Heritage of Humanity since 2001 – the greatest difficulty is the possibility to perform the intended melody. A lighter or stronger movement of the diaphragm may lead to a situation where we may achieve the required sound, or not.

The only way to perform the correct melody is professional positioning of the diaphragm and an extremely cautious awareness of the instrument, if amateur musicians play it. As with any instrument, its correct use and technique plays an important role.

A well-known promoter of the instrument is Bob Rychlik, a Slovak living in the USA. His mission is to propagate these instruments across the world and performing shepherds' melodies as well as holding the Slovak fujara courses.

10. *Stormy Night*

A traditional melody

Performed by: Katarzyna Gacek-Duda, 6-holed pipe, wooden transverse flute

Vita Kasparika, modern transverse flute

Mateusz Głuszak, guitars

Patryk Zakrzewski, percussion instruments

Ethnic instruments appearing in the piece are *vitovski flute* and *6-holed pipes*. In the latter part, we hear the transverse flute imitating *Irish music*. The piece imitates Irish 4/4 miniatures which are called *reels*. They are short melodies with a motoric characteristic. The rhythm as well as accents together with minor ornaments and accentuation of the weak parts of the bar play an important role in the described melody tact. The original Irish pieces should be performed on the *Irish flute* and *whistle tin*. The recording is an artistic translation of the Irish music into the

realm of other instruments with the same characteristics. The difference can be perceived in the sound and the material, i.e. wood.

11. *Taniec Małej Jaśminki [Little Jasmine Dance]*

A quick waltz (etudes) for wooden transverse flute, violine, viola and bass

Composer, Katarzyna Gacek-Duda

Performed by, Królestwo Beskidu in the following composition:

Katarzyna Gacek-Duda, flute

Marcin Sidor, violin

Beniamin Wałach, viola

Paweł Wszolek, bass

A quick waltz with the accompaniment of a string trio is a simple melody inspired by the Carpathian music. The ethnic character of the piece is provided by the Hungarian or traditional viola second and the melody performed unison with the violine particularly characteristic of the *world music* genre. Due to the specific nature of the wooden transverse flute, one can hear intonation deviations which in this dimension reflect the *ethnic* style character.

12. *Duszka [Dushka]*

An ethnic melody for two Slovak fujaras

Performed by: Katarzyna Gacek-Duda

Slovak Big Fajara – it is the sound of the instrument in the piece entitled *Dushka*. The *pipe* is amazingly warm, deep and velvet-like, especially in the lower octaves of the instrument. The maker of the said instrument is Krzysztof Siuty from Zakopane, an amazing maker and constructor of folk instruments. The higher the sounds, the more prominent the harshness of the aliquot and the double sound resembling the majestic tones with a note of profoundness. The piece is written for a drone tone and a leading melody which is accomplished by the use of the best-known performance technique for this instrument with the reginal name of “rozfuk”. Apart

from that, the piece contains clear sound passages in which the multiple microtones can be heard.

A very important element in the aliquot pieces is the ability to produce them. As in other aliquot instruments, the creator is as important as the skills.

The correct calculation of hole distances and carefully-made main pipe of the instrument as well as timber quality affect the sound and intonation as well as ease of “producing” the desired melody.

Similarly to the above-described instruments, the ability to use the diaphragm and sound awareness are the paving stones for the successful use of the instrument.

A luring Slovak tradition is decorating the Slovak pipes which sometimes can be several metres high. In Detva, there are many artists who can manually carve genuine works of art. On the instrument. During the summer fairs or markets, art connoisseurs and art lovers from all over the world arrive in Slovakia to bid for the most beautiful instruments. Sometimes whether or not they can actually play the instrument is irrelevant. The instrument may also be a beautiful decoration of the house.



Private archive. The picture represents the traditional playing technique on the great Slovak pipe. The picture depicts Katarzyna Gacek-Duda with Beniamin Wałach seconding her on the Hungarian viola in the background.

13. *Heart of Lakota*

Composer: Katarzyna Gacek-Duda

Performed by: Katarzyna Gacek-Duda

The melody inspired by the music of the People of the North for four native American flutes.

The leading flute imitates singing with the remaining the representing the characteristic shaman-like Indian rhythm which in the Indian culture is performed by the *shaman drum*. It is a characteristic rhythm bringing the musicians and the dancers into the trans-like condition which, at the same time, is a peculiar prayer to the spirits believed in by the Indian People.

14. *Toccata* (a fragment of the piece)



Proposal of ethnic ornamentation



The piece is dominated by the characteristic overblowing. Such endings are usually inspired by Slavic music particularly that characteristic of the regions inhabited by Małopolska mountaineers. The beginning and the main theme of the pieces deserves emphasis; they are played using the flute-singing technique (flute-playing-and-singing – the name used by the author). Simultaneous playing and singing appear in modern music but they are part of the detailed technical work with the sound and its volume. Peter Lukas-Graf in his incomparable work entitled: *Check-Up*⁷⁰ uses the term “playing and singing” as an exercise to the open throat and free production of the classical sound.

In the above-given piece, the flute and sound are an ethnic thought alluding to double flutes. In this specific case the *Podhale dvoyanka* provided inspiration.

Made from two branches and decorated with the engraved leaves, *dvoyanka* has a surprisingly warm and velvet sound. An attempt at reproducing the warmth and wholeness of the *dvoyanka* sound on the *transverse flute* is almost impossible. The player is absolutely required to maintain the drone and produce a “white” sound with an emphasis on adequate intonation. Thinking in white voice is important to maintain the drone tone. The flute and sound technique

⁷⁰ P. Lukas-Graf, *Check-Up*, PWM, Cracow, 1998.

is not only based on the drone but also on other double-melody pieces for the *transverse flute*.

The name of the piece comes from the accompanist's idea regarding the piano path. For the flute to sound in an ethnic tone, and all microtones, the singing and the drone sound to be heard in a listener-comfortable version, the use of DPA 4099 microphone, specifically intended for the *transverse flute* is recommended. The device supports the instrument by boosting up the so-called sound "aces". For the performance to resemble the velvet-like softness of *dvoyanka*, the performance in the space with good acoustics is recommended - best in the wooden hall with natural echo, or - if it is not possible – the sound engineer should enrich the flautist's and audience's playback with a subtle natural echo.

Performance instructions for *Toccata*:

If you have never played and sung simultaneously before, you will need to practice and be patient to acquire these demanding skills. A very good guide in the learning of the simultaneous singing and playing technique is *Check-Up* by Peter Lukas-Graf⁷¹, which in a step-by-step approach describes that performance technique. Another stage is an absolute maintenance of the intonation and f sound coupled with the clear singing in comparison with the drone note. It can be practiced through intervals cleaning the individual distances and intervals. The drone sound may not be 100% complete as its bands must be completed and filled with the human voice. An indication may also be learning and an attempt at white singing. The described piece is based on a throat technique which eventually allows to achieve the ethnic Slavic character of the intro.

⁷¹ Peter Lukas-Graf – a Swiss flautist and conductor, among other things, the author of a coursebook with 20 basic studies for the flautists entitled: *Check-Up*.

15. *Wind of The Calvary Hill* (fragment of the piece)

15

Fl.

P-no

19

Fl.

P-no

23

Fl.

P-no

Proposal of ethnic ornamentation

Flauto

The image displays a musical score for a flute (Flauto) in 4/4 time, featuring six staves of music. The key signature is three flats (B-flat, E-flat, A-flat). The score includes various musical notations such as rests, eighth notes, sixteenth notes, and triplets. Handwritten ethnic ornaments are placed below the staves, including loops, wavy lines, and spirals. The staves are numbered 7, 11, 15, 19, and 23. The final staff ends with a double bar line.

7

11

15

19

23

Composer: Katarzyna Gacek-Duda, Paulina Stateczna
Performed by: Katarzyna Gacek-Duda, transverse flute
Paulina Stateczna, piano

Appoggiaturas play a particular role in this piece. There are many sounds blown from the diaphragm with emphasised vibration which has its own pace in the performance technique of the Japanese *shakuhachi*. In the recording, a “harsh” sound is heard. This colour was adopted from the *kaba* technique where the sound must be “overfilled with air” in the lowest octave of the instrument.

Ethnicity is added not only through the ornamentation and articulation, or manner of sound production but also by the Doric scale appearing in various configuration. No doubt, a difficult part of this piece is its interpretation and individual expression. It does not have the frames limiting the performer. The recording is an individual interpretation. The description provides for technical possibilities inspired by the selected ethnic flute playing technique; however, the structure and recurrence of the phrases with a dose of improvisation is arbitrary. The notes and form provide a hint on a number of possibilities. One of the permanent elements should be the topic which is at the beginning of the piece.

Performance instructions for *Wind of the Calvary Hill*:

The piece is performed with the deep sound and strong vibrato. 90% of the piece is performed at the edge of the aliquot and classical sound. It is a tarnished sound close to the *Bulgarian kaba*. The initial flute “calls” should be played with the open sound, i.e. between the proper tone and a subtly higher intonation. From the technical perspective, this figure has to be performed with the upright position of the head and the mouthpiece slightly pushed forward. All kinds of the capturing flute “calls” add to the more mysticised nature of the piece.

Wind of The Calvary Hill is bold merger of sound and ornamentation.

This ethnic miniature was commissioned by the brothers of St. John of God from Kalwaria. The performance palette contained is inspired by the *native American flute* with the *shakuchachi* and the *kaval*.

16. *Krzyżu Święty* [Oh, Holy Crucifix] (fragment)



Proposal of ethnic ornamentation



The traditional Polish Lenten song became one of the first compositions performed with the conscious use of ethnic ornamentation. This performance technique alluded to artistic combination of the *Arabic ney* and the *Bulgarian kaval*, where the fingertip glissando plays a particular role as coupled with the simultaneous playing and singing in unison pointing out to a specific type of playing technique referred to as *kaba*. The *Kaba* is performed on the lowest scale of the *ney* or the *kaval* and is a very difficult element of performance. The tones similar to *kaba* may be achieved through singing and playing, or moving the whole body of the instrument towards the performer and playing technique on the edge of the mouthpiece.

This piece also includes an imitation of the Arabic ornamentation swellings which, during the *ney* playing, derive from the natural position of the instrument, i.e. in a diagonal way and continuous breathing work. All kinds of subsonic glissandos are part of the artistic creation. It is a kind of musical expression suggestive of emotions linked with the Lenten song. The unusual

spirit of the hurdy gurdy added by Joachim Mencil provides an invaluable support for the flute thus adding to the specific Lenten expression of the piece. The harsh sound of the hurdy gurdy and subtleness of the flute were an inspiration for the expression linked with the *Krzyżu Święty* [Oh, Holy Crucifix] melody.

Performance instruction for the Lenten song *Krzyżu Święty* [Oh, Holy Crucifix]:

Play with a simple sound. Do not use the diaphragm vibration. Play in the *kaba* style with the sound obtained through the overblowing – similarly to the lowest octaves of the *Bulgarian kaval*, or the *Arabic ney*. The instrument has to be moved towards the performer and then the piece should be performed at the edge of the mouthpiece to obtain the tarnished sound. Use the vibration only and exclusively to uncover and cover the openings at the end of the instrument keys with the fingertips. Play simple sounds in the instrument provided with the keys and in the places marked with the vibration move the instrument slightly outwards and inwards thus creating an external vibrato.

Examples of musical inspiration: *Theodosii Spassov – Slow Melody*,

Nedyalko Nedyalkov solo Kaval

Geriovski Melodies Bulgarian traditional music – YouTube

17. *The Thorn Tree* (fragment a of the piece)



The image displays a handwritten musical score consisting of five staves, each featuring a musical staff and a large, ornate handwritten flourish. The flourishes are drawn in dark ink and include long, sweeping arrows that point from the left side of the staff towards the right, often ending near the final measure of the staff. The musical notation is written in a single system across the five staves, with a key signature of two flats (B-flat and E-flat) and a time signature of 3/8. The notation includes various note values, rests, and accidentals. The staves are numbered 6, 11, 15, and 19, indicating the measure numbers. The overall style is that of a personal or working manuscript.

6

11

15

19

Composer: Katarzyna Gacek-Duda

Performed by: Katarzyna Gacek-Duda, transverse flute

An ethnic miniature – a desert improvisation for the flute solo

Part of this piece is focused on the Spanish-Jewish scale. It is a piece which may be particularly useful in familiarising young students of flute playing with the musical culture of the sounds of the Middle East. The piece recorded on the CD begins with an aliquot sound diverting from an inventive, pure playing of the instrument. The main theme is based on overblowing with appoggiaturas and introduces the listener into the world different from the classical framework. The first part of the piece contains overblowing which, as in the music of the Middle East, are to bring them closer to the so-called sound overblowing with a large amount of air very characteristic of the *Egyptian ney*.

The Thorn Tree is a miniature which was created based on the melody model of *makam*⁷² which is part of the tradition and culture of the Arabic music. As in the intro, to *The Thorn Tree* – makam does not contain any rhythmic schemes. The classical Arabic music is conglomerate of Arabic speaking Islamic nations.

The first part of *The Thorn Tree* is an intro, which was composed in the Timna Desert, Israel. This creative work place was particularly important for the improvisation as the improvisation and artistic composition of the pieces alluding to the desert should be perceived in every aspect of the creation. The desert wind, sand, heat and invaluable silence should have their specific role in the live creation of musical themes which may be developed through the observation of nature.

In the described piece, the author also wanted to show the harshness of the Timna situated at the border between Egypt and Israel. Cruelty manifesting in the sandy and stony area does not often allow to look freely into the horizon. The red rock hills and warm wind appear in the second part of the work. Peacefulness and return to the wide and dark colour and ornamentation imitating the Arabic ornamentation and waving which we achieve through the fingering on the key openings and positions of the lips in such a way as to achieve vibration by moving the head, did not affect the perfection of the sound.

The second part represents calmness which appears after the windy swirls of the Timna Desert in the silence and warmth suggesting the deceleration of life. In order to achieve the effect of slowing down and calmness, the author deliberately added *daff* to the leading instrument. *Daff* is an extraordinary frame drum which is one of the pioneering instruments of the Middle East. The flute and *daff*, or more specifically the *ney* and *daff* are one of the most popular instruments of a musical band in among the Arabic musicians. This form is often enriched with the string instruments, i.e. *sas*. In the second part of *The Thorn Tree*, *daff* not only provides

⁷² Microtones are characteristic features of *makam*. The use of this performance technique is characteristic of the vocal and instrumental music. *Makam* does not contain any rhythmic schemes. It is a number of evenly untempered tones typical of Arabic, Persian or Turkish music.

accompaniment but is also an expression counterpointing the flute. In the consecutive part, there appear flute sounds improvised unisono by the flute player⁷³.

Another artistic description of the piece is the title alluding to a thorn tree in the desert which provided inspiration for the author's creation of the piece.

Similarly to the North American Indians, the inspiration for the note reading of the surrounding world is the horizon which is observed at a particular moment of the day or night.

Performance instruction for the ethnic miniature: *The Thorn Tree*:

Ethnic Arabic vibrato – suggestive of the *ney* sound.

While playing the *Arabic ney*, vibrations are produced by “waving” the finger over a selected sound hole. The vibration is not created by diaphragm blowing. While playing the *transverse flute* try to imitate the Turkish or Egyptian players. The vibrato is achieved by finger “waving” or moving the instrument which makes the music harsh and translates into the understanding of the ethnic music. Melodies are written so that the performer has a creative freedom of choosing his/her own path based on returns to the above-mentioned musical themes or motives.

Musical sources of inspiration:

Mehdi Aminian & Mohamad Zafari – Entire concert on YouTube

Mohammad Mousavi – *Persian Ney*

⁷³ Private archive: <https://youtu.be/d2ytmcuzyGE> – live video and audio recording made in the Timna Desert, Israel.

18. *Drama Köprüsü* (traditional Kurd melody)

(3/8 + 2/8 + 2/8 + 3/8)



Proposal of ethnic ornamentation

(3/8 + 2/8 + 2/8 + 3/8) *8va*

5

9

12

15

19

The musical score consists of six staves of music in G major. The first staff (measures 1-4) is marked with a complex time signature (3/8 + 2/8 + 2/8 + 3/8) and an 8va ornament. The second staff (measures 5-8) features a trill ornament. The third staff (measures 9-12) includes a grace note ornament. The fourth staff (measures 13-15) has a trill ornament. The fifth staff (measures 16-19) features a trill ornament. The sixth staff (measures 20-23) includes a trill ornament. The score is divided into measures 1-4, 5-8, 9-12, 13-15, and 16-19.

Traditional Kurd melody

Performed by: Katarzyna Gacek-Duda, transverse flute
Patryk Zakrzewski, daff

A popular in turkey traditional melody. *The transverse flute* imitates the *Arabic ney*. The beauty and simplicity of the song do not leave much room for ornamentation and the style resembles playing the *Turkish ney* or, perhaps more adequately, the *Persian nay* where the ornamentation is less important than the accent and direction of a simple melody with the deep sound.

Performance instruction for the Kurd melody: *Drama Köprüsü*

Understanding the 3223 rhythm is very important in the melody which is a characteristic of Arabic countries and Turkish metre. Play a simple sound while trying to accomplish minimum Arabic sound in the interval passages.

Inspiring musical examples:

Maryam Chemirani – Chabi Majnoun

Kudsi Erguner – Ney

19. *Arabic House* (fragment of the piece)



Proposal of ethnic ornamentation

The image shows a handwritten musical score on six staves of music. The music is written in 4/4 time and features various ethnic ornaments. The first staff has a large, flowing ornament underneath. The second staff has a similar ornament and a handwritten note in Russian: "Жизнь не по танцу, а по настроению. Improvisация." (Life is not by dance, but by mood. Improvisation). The third staff has a large, flowing ornament underneath. The fourth staff has a large, flowing ornament underneath. The fifth staff has a large, flowing ornament underneath. The sixth staff has a large, flowing ornament underneath.

5

9

13

17

21

Жизнь не по танцу, а по настроению.
Improvisация.

Остаток продолжение танца.

Composer: Katarzyna Gacek-Duda

Performed by: Katarzyna Gacek-Duda, transverse flute

Patryk Zakrzewski, daff

Arabic House is an improvised compilation with the Jewish scale at its centre. It is a kind of an etude or an exercise preparing for the *daff* and flute duet and an etude preparing for the learning of the Jewish scale. Despite its peculiar minimalism, it is one of the most difficult forms of musical cooperation. The flute player is telling a musical story whose objective is to bring the listener into another dimension of music, i.e. the trans music. The task of the percussionist is to follow the soloist so that together they can provide a uniform expression. Another step is the role of the percussionist who, at a certain point, has to take over the role of the leader with the flute in the role of the second voice less invasive and accompanying in nature when the drum becomes the main solo part. For the duet to capture the attention of the listeners, a joint work of the two players is extremely important – many hours of practice and self-learning in the context of improvisation.

Notes play the role of the prompts when to return to the phrase. A particular motive can be played several times and changed through improvisation using different ornamentation each time. The melody must flow in a stagnant way and as in the Middle East, the ornamentation of the waving vibrato with the use of hands of movement of the hand is a priority. Performers also need to reach the so-called musical goal, i.e. a consensus of the tension which may increase even up to 15 minutes with the adequate distribution of the phrases. Performers should also ensure attractive character of each new phrase for the listeners which is the most difficult process in such instrumental compilation.

In later parts, the singing sound appears which imitates the *Persian ney*. The unisono singing sound alludes to the dark sounds of the *Arabic ney*.

Performance instructions for the ethnic etudes: *Arabic House*:

Play a simple sound. The sound between h2 and a2 play using the “waving” ethnic glissando inspired by the *Arabic ney*. The piece’s tempo is moderate and peaceful. The theme is played by mezzo piano so that throughout each following eight bar fragment it increases to the full sound. The first 8 bars provide the theme which in the consecutive part is created by the performer through the variations of the written melody.

20. *Irish polka* (fragment of the piece)

The musical score is written for Flauto (Flute) and Uilleann pipes. It consists of six systems of music, each with a Flauto staff and a Uilleann pipes staff. The key signature is one sharp (F#) and the time signature is 4/4. The score includes various musical notations such as notes, rests, and ornaments. The Uilleann pipes part features a series of chords and ornaments, while the Flauto part includes melodic lines with triplets and other rhythmic patterns. The score is numbered 6, 12, 18, 30, and 37 at the beginning of each system.

Flauto

Uilleann pipes

6

Fl.

U- p

12

Fl.

U- p

18

Fl.

U- p

30

Fl.

U- p

37

Fl.

U- p

Proposed ornamentation notation

The musical score is written for Flauto (flute) and Uilleann pipes. It consists of three systems of staves. The first system shows the initial measures with a key signature of one sharp (F#) and a 4/4 time signature. The second system starts at measure 6 and includes triplet markings. The third system starts at measure 12 and ends with a double bar line and a key signature change to two sharps (F# and C#).

Irish polka is a composition comprising an intro and an “Irish” polka interwoven with the “Polish” polka. It was created in very harsh environment. The cold, dampness, the weather and climate were the harbingers of the forthcoming rainy season. The intro into the musical miniature is a majestic allusion to the site where it was composed. The harsh and unusual sound introducing the listener into the ethnic sounds reminiscent of the north note and climate of the isles is obtained through the combination of the aerophone with the traditional Irish instrument.

The second part the piece is led by the piper and the flute player may improvise in the style of a melodic accord disruption. In the Irish music, there is a peculiar type of polyphony in the duet of the flute and the pipes. It is quite a popular form of performing a tune in unison. Imitation of the *Irish flute* consisted in creating a second melody which by the direction of the phrases would remind of the author’s performance inclining towards the Polish music. The recording represents an authentic encounter with the piper at a wooden cottage in the village outside Belfast.

Performance instructions for the ethnic etudes: *Irish polka.pl*:

Play a simple sound. To come closer to the Irish music inspiration, learn simple and basic ornaments for flutes or the *whistle tin*. The sound inspired by the wooden *Irish flute* must exist between the pure and slightly forced sounds. The key role plays quick stream of the air not disrupted by the vibration of the diaphragm. The familiarity with the reel or jig stylistics is a key to the Irish music.

A basic guide to the Irish style playing is *The Essential Guide to Irish Flute and Tin Whistle* by Grey Larsen. This fantastic book will guide a young learner through the intricacies of the *world music* through the elementary knowledge of the Irish ornamentation. For the above-discussed piece to be played under the inspiration of the Irish music, it is important to use at least

two basic ornaments. The essence of the intro which may be led as an improvisation a little longer than on the recording through an amazing sound and harmony aspect of *uillen pipes*, is also to listen to the *slow air* compositions, i.e. slow melodies which create a musical atmosphere characteristic of the British Isles.

Sources of inspiration:

Cindy Kallet and Grey Larsen – Swallowtail Reel, Wind that Shakes the Barley, Merry Harriers, Irish Wooden Flutes Steffen Gabriel – YouTube Channel



A music playing meeting with Tiarnan O'Duinnchin, an outstanding Irish *uillen piper*. Belfast, Northern Ireland, 2018.

21. *Flute-swish Powitanie Afryki [Welcome to Africa]*
(fragment)

Flauto

Flauto

6

Fl.

Fl.

10

Fl.

Fl.

14

Fl.

Fl.

19

Perkaszyny

Fl.

Fl.

An example of application of one of the *flute-swish* articulation technique – *Tsi Ti, Tsi Ti*

The image displays a musical score for flute and percussion, illustrating the 'flute-swish' articulation technique. The score is written in 4/4 time with a key signature of one sharp (F#). It consists of several systems of staves, with measures numbered 6, 10, 14, and 19.

Flute (Fl.) Staves:

- Measures 6-9:** The flute part features a melodic line with eighth and sixteenth notes. Handwritten notes above the staff include "ti ti" and "Pando ttttko peluktyunie ryvanyie ttttko". A bracket groups these notes, and a larger bracket extends to the right, labeled "tsi ti tsi ti ti tsi ti ti".
- Measures 10-13:** The flute continues with a similar melodic pattern. Handwritten notes "ti ti ti ti" are present above the staff.
- Measures 14-17:** The flute part shows a continuation of the melodic line. Handwritten notes "ti ti ti ti" are above the staff. A bracket groups these notes, and a larger bracket extends to the right, labeled "ti ki ti ki ti ki ti ki".
- Measure 19:** The flute part continues with the melodic line. Handwritten notes "ti ti" are above the staff.

Percussion (Perkaszyny) Staff:

- Measures 19-20:** The percussion part is shown at the bottom of the page, featuring a rhythmic pattern of eighth and sixteenth notes.

Articulation and Dynamics:

- The score uses various articulation marks, including slurs and accents, to indicate the 'flute-swish' technique.
- Dynamic markings such as *ff* (fortissimo) and *f* (forte) are present throughout the score.

Composer: Katarzyna Gacek-Duda

Performed by: Katarzyna Gacek-Duda, modern transverse flute

The described musical miniature is an artistic inspiration and a flute merger. The flute-swish is the name of the performance technique based to a large extent on the play with the air, through-blowing and overblowing, inhaling and exhaling. The piece was written for the three transverse flutes and if there are more musicians and even more interesting improvisation message based on the form of the piece may be accomplished. In the recording, there are three flute parts written and creative parts, i.e. improvisation and colouring parts. The line of the first voice beginning the theme in a motoric way reappears several times throughout the miniature. The performance technique involves precise overblowing, flute-swish articulation and staccato dominated by the “air-filled” sound. In the background you can hear the possibilities of the flute playing the role of the percussion/drum instruments forming the motoric character of the piece. Between the AB form and the return to A, there appears a strongly sounding flute-swish articulation and improvisation. This piece is a peculiar surrogate of rhythmic, and sound possibilities of the transverse flute and positions it in the incredibly fascinating rule of musical self-sufficiency. The piece may be performed on the transverse flute, alt flute and bas flute.

Performance instructions for the *Fletoświst [Flute-swish]* ethnic miniature:

Play a simple sound. Make selective flute-swish with a short tongue. The sound may not be reminiscent of the classical style. The marked accents must imitate the rhythm rather than the melody. The overblowing has to be performed in such a way as not to distort the sound intonation. The sounds of percussion instruments in the middle part of the piece have to be performed on a deep «hy» with a perfect rhythmic perception. Each proper sound phrase must be performed emotionally with the so-called back thinking in the context of the rhythm.

All kinds of mains hum and flutter-tonguing are an imitation of the African nature with the vast majority of birds producing characteristic rhythmic and harsh tones. It is an entirely different kind of singing in comparison with the singing birds of Europe.

For the piece to be performed in a professional manner, the performer needs to possess outstanding technical skills. A selective «swishing» articulation requires many hours of practice.

The flute-swish offers a range of various consonants, syllables and words. The use of short and hard-sounding consonants with an addition of such sounds as tsi, tch and ty is recommended.

Indians believe that the flute should have air in its sound as they do not regard the flute as the

wind⁷⁴.



The Timna Desert, ISzrael, at the border with Egypt. Live recordings. Small Slovak fujara.

22. *Habdala*

A traditional song at the end of Sabbath

Performed by: Katarzyna Gacek-Duda, transverse flute

Paulina Stateczna, piano

A charming, penetrating song played during the second and the last evening of the Sabbath. Popular and performer by the Jewish diaspora, confessors or Judaism as well as the messianic community. The song utilises ornamentation suggestive of the Middle East, i.e. the Arabic sound and ethnic vibrato.

23. *Ethnoflutes Arabica*

Composer: Katarzyna Gacek-Duda

Performed by: Katarzyna Gacek-Duda, wooden transverse flute, ethnic flutes

⁷⁴ During his journeys Across North America, Tommy Harevis encountered a Native American flautist who relayed this Indian saying to him and explained the meaning of the flute sound to native Americans.

An experimental piece for ethnic flutes and wooden transverse flute. As in *Fletoświst*, aerophones play the role of the whole band or a small chamber orchestra in this short and humorous piece. It is very difficult to coalesce the ethnic instruments in terms of intonation. Therefore, it is very important for the flutes to be chosen for the band in the same tune, e.g. 440Hz. In Poland it is possible to purchase the instruments which are made up of two parts which reduces the problem of tuning.

24. *Psalm 23*

Composer: Robert Kasprowicz

Arrangement: Adam Kosewski, Katarzyna Gacek-Duda, Piotr Kominek

Performed by: Tiarnan O'Duinnchin, uileen pipes

Robert Kasprowicz, vocal

Katarzyna Gacek-Duda, wooden transverse flute

A piece in which the transverse flute accompanies the song. Its role is to break the melodic harmony. In folk or traditional music, it is often referred to as *ogrivka*. It is a kind of ornamentation. Many regions of the world have their characteristic *ogrivkas* which means adding small harmonic sound values to the leading melody. *Ogrivkas* add to the motoric and character of the tune.

In this particular piece, the transverse flute is also inspired from the performance perspective by the ornamentation of the Celtic music and the sound of the *Irish flute*.

25. *Modlitwa w Górach [A Prayer in the Mountains]*

Composition by Katarzyna Gacek-Duda

An experimental ethnic miniature for the transverse flute, mountaineer band, drum instruments, piano and an ethnic vocal

The piece was written after the death of the Polish Himalaya climber - Maciej Berbeka, who died at Broad Peak. His tragical death became inspiration for the dark piece which is to present from musical perspective the moment of passing from life through death to eternal life. It is a

prayer of a man freezing to death in the high mountains asking for eternal life.

26. *Jasminum*

A traditional Chinese melody entitle *Kwiat Jaśminu [The Flower of Jasmine]*

Katarzyna Gacek-Duda, transverse flute

Performed on the modern transverse flute which imitates the sound of the *dizi* flute.

The ornamentation used in the piece is the ethnic vibrato and ethnic soft vibrato. It is particularly important to operate a simple sound with the equal (balanced) air stream.

27. *Easty*

Leading motive composed by: Katarzyna Gacek-Duda

Arrangement: Ghostman, Patryk Zakrzewski

Performed by: Ghostman, vocal

Katarzyna Gacek-Duda, modern transverse flute

Patryk Zakrzewski, darbuka

The piece is inspired by the Music of the Middle East for ethnic sound, *transverse flute* and *darbuka* and was recorded on the Neg-ev desert in the Palestinian Territories of Israel neighbouring Egypt with the Bedouin shepherds who provided us with a number of guidelines as to how to perform the music of the Middle East.

Conclusion

The artistic work is a compilation of experimental pieces which were created in different regions of the world over the past few years. Some of the ethnic miniatures were recorded live in the Timna Desert, Ireland and by the Dead Sea. The pieces contain various sounds of nature, for example the wind, working people, or voices of the passers-by. You can also hear the sound of the sea or applause of the co-players who contributed to the creation of the music. Apart from such original recording, there are also pieces by the Królestwo Beskidu band which were composed based on the inspiration and love for the Beskids' music. There is also a range of other pieces or etudes which were written, or composed, specifically for the purpose of the above-described work of art/artistic creation. The artistic part and its description form an experimental step towards creation of a new way of playing the *transverse flute* which artistically in this performance stylistics may be a fully utilised instrument in the ethnic, avant garde entertainment, modern music or in pieces inspired by the traditional or folk music.

The artistic part and its description point out to the new way of paying which has been used by the author of this doctoral thesis for many years. An important aspect became creating more sonoristic values in music. Use of colours and performance sounds which are suggestive of the instruments used in remote cultures allowed to create a completely new world in the perception of the modern transverse flute. The many years of fascinating performance experiences and journeys to various corners of the world combined with an attempt at imitating different sounds of transverse flute provided a very interesting perspective of perception of this instrument.

Ethnic ornamentation, colour effect, or the flute-swish technique allowed to systematise the sound and categorisation in the context of other, contemporary performance techniques for modern transverse flute.

Imitation of the flute sounds of the world is not only about playing individual ornaments or using performance techniques similar to a given instrument but it is also a way of thinking and a deep understanding of the remote, musical and ethnic cultures of the world.

The photo gallery of the collection of the world's ethnic aerophones which is part of the private gallery of Katarzyna Gacek-Duda



Ocarina – a ceramic instrument purchased at the workshop of Tadeusz and Grażyna Kruczyński, Żywiec.



Bone pipe – an instrument made from a turkey bone purchased at the Vit Kasparik workshop in Velké Karlovice, Moravian Beskids, Czech Republic.



6-holed pipes – instruments made from elder wood. It is a collection of several instruments playing in various tonalities, hence different pipe lengths. Made by: Marek Bzowski from Roztocze, Eastern Poland and Wit Kasparik. The instruments are still popular across Poland.



Salasnik fujara – a single-tone, aliquot instrument⁷⁵, made from elder wood by: Vit Kasparik. The instrument can be found in the Silesian Beskids and part of the Western Żywiec region.

⁷⁵ Melodies performer on the fujara are based on a single, basic tone and its aliquots



Lenten fujara – single-tone, aliquot instruments made from elder. The instruments vary in tonalities and structure, hence different lengths of the instruments. The two first instruments were made by Marek Bzowski, the third from the left (the smallest) by Vit Kasparik. The instruments were typical of Podhale, Silesian and Żywiec Beskids as well as Orava.



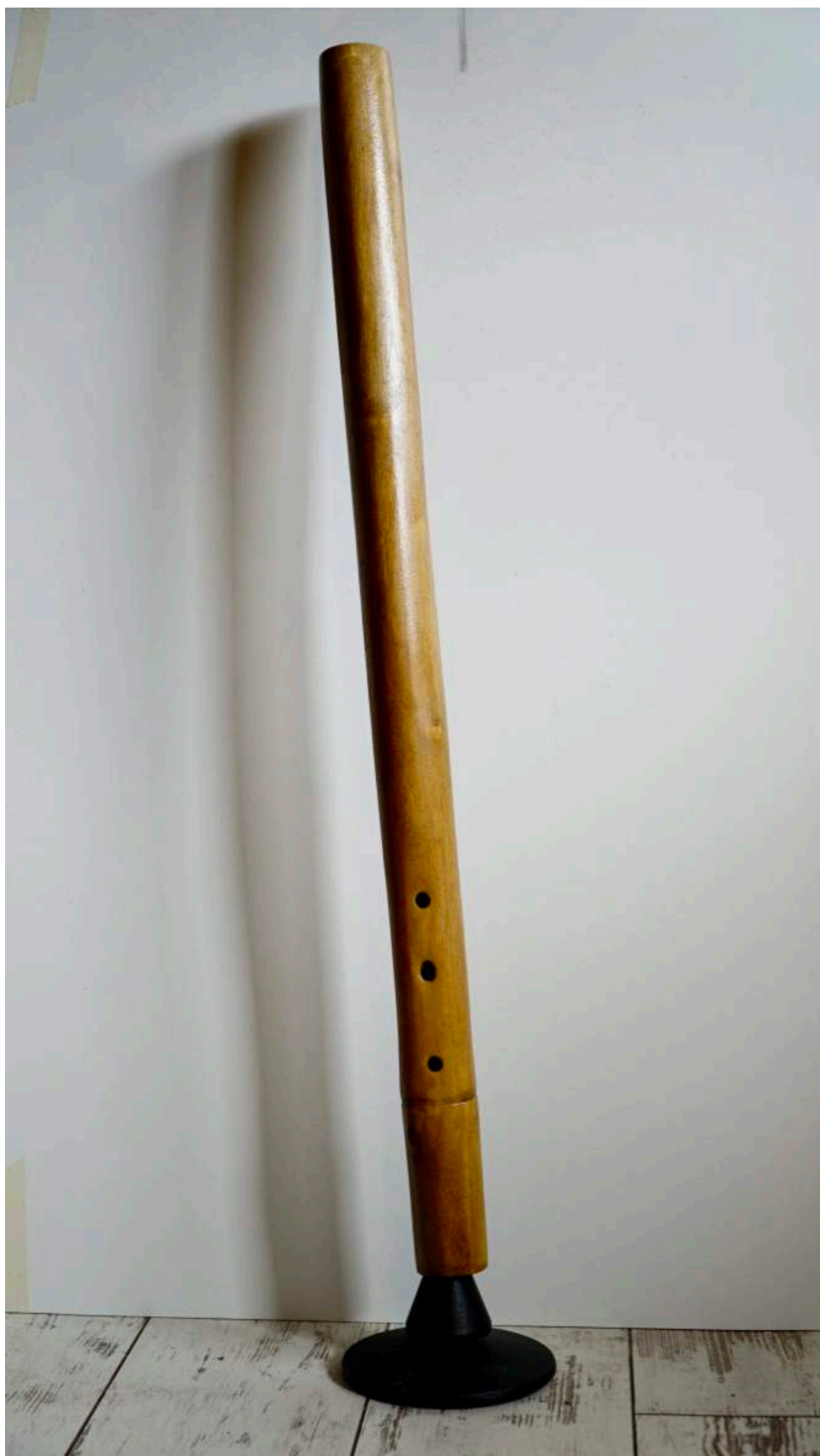
Dvoyanka – double pipes made from elder consisting of a 6-holed and an accompanying drone pipe. Made by: Marek Bzowski, Vit Kasparik. The characteristic plug allows to change to tonality from major key to minor key. The instruments were encountered in the regions of Orava and Podhale.



Polyphonic dvoynka – an instrument made from elder wood by: Vit Kasparik. Double-piped, 5-holed and 3-holed, interconnected which allows to perform a simple melody in a “duet”



Diagonal flute – made from elder wood by: Marek Bzowski. During the interview with the instrument maker, he said that the diagonal flute was encountered in the eastern region of Poland.



Podhale palica – a 3-tone, aliquot instrument made from elder wood, typical of Podhale and Spisz regions.
Made by: Krzysztof Siuta from Zakopane.



6-holed Detvan pipe – an instrument made from hornbeam wood, purchased at the instrument fair in Detva, by unknown maker. The instrument was intricately made by one of the Slovak makers of Slovak pipes. The patterns are hand-made. The instrument is popular in Northern Slovakia.



Short Slovak Fujara – an instrument made from elder wood has been registered on the UNESCO World's Intangible Cultural Heritage List. It is a national, ethnic instrument of Slovakia. Made by: Zenon Kuraš, Slovakia.



Long Slovak fujara – an instrument made from elder wood made by:
Krzysztof Siuta from Zakopane.



Sopilka – instruments made from elder wood by: Marek Bzowski. Sopilka is a 10-holed flute popular in Ukraine.



Kaval – instruments which originally come from Bulgaria. Made by: Jacek Grekow and Andrzej Kozłowski. The first from the left instrument is made from rosewood, the middle one from the pearwood and the last one from the Cornelian cherry wood.



Hucul flute – a find. One of the pipes is “built over” by a mason bee. The instrument is used as a decorative item in the gallery of Katarzyna Gacek-Duda. Unknown maker.



Moldovan kaval – an instrument made from elder wood. Imported from Budapest, from the workshop of Vidor Torok, a Hungarian musician and piper.



Seljefløyte – a Norwegian flute made from willow wood. An aliquot, transverse, single-toned aerophone. Imported from Bergen. Maker unknown.



Whistle tins – Irish flutes. The top one is made from plastic by Goldfish, the other one is made from metal; imported from the British Isles.



Irish wood flute – a transverse Irish flute made by Pratten from the granadilla wood.



Cone-shaped transverse flute – a flute made from Bolivian palisander wood by: Marek Bzowski.



Turkish ney – imported into the gallery of Katarzyna Gacek-Duda by Yaron Cherniak from Jerusalem.



Arabic ney – imported into the gallery of Katarzyna Gacek-Duda by Yaron Cherniak from Jerusalem.



Shofar – an aerophone made from the ram's horn. Imported from the Jerusalem fairs, Israel.



Dizi – a collection of Chinese transverse flutes made from bamboo. The instruments were purchased and imported from Chinese instrument fairs in Beijing and Canton.



Hulusi – an instrument consisting of a carved gourd and the inserted bamboo pipes. The preferred performance technique involves permanent breathing as the instrument requires enormous effort to keep the sound and tonality. The instrument purchased at Canton instrument fairs and imported from China.



Bawu – a transverse instrument made from bamboo. It has a mouthpiece with a single, metal reed which gives it a very clear, clarinet tone. The instrument imported from China.



Chinese ocarina – a clay (ceramic) instrument. Imported from the instrument fairs in Canton.



Xiao – A Chinese end-blown instrument (cut mouthpiece hole) a bamboo flute. Imported from the ethnic instruments' fairs in Beijing.



Shakuhachi – a traditional, Japanese instrument made from a bamboo stem. Imported from Japan.



Bansuri – Indian transverse flutes. Imported from India courtesy of Professor Maria Pomianowska.



Native American flute – flutes of the North American peoples. The first from the left is made from mahogany interlaid with the Canadian maple wood. The other instrument is made from pure mahogany wood. Imported from Canada.



Tarka (Charkas) – a native flute of the Andes. Unknown wooden material. Imported from Bolivia.



Syringa or *panpipe* – a Polish equivalent are *multanka*. The instrument is made from bamboo, maple or plum, pear or cherry wood.



Modern transverse flute – made by Sankyo from the ebony tree family wood. The keys are made from silver with the rings from white gold. The instrument was imported from Japan, the headquarters of Sankyo – one of the most prominent flute brands in the world. Katarzyna Gacek-Duda uses this instrument to perform author's ornamentation based on the sounding of the ethnic flutes of the world.

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Consultants

Professor Maria Pomianowska

Tommy Harevis, the flutes of North and South America

Wassim Ibrahim, the Arabic music

Adeb Chamoun, the Arabic eurhythmics

Jacek Grekow, the Bulgarian kaval

Marek Bzowski, Polish flutes, flutes of the eastern border of the Carpathian Mountains

Vit Kasparik, the flutes of the Western Carpathian Mountains

Joachim Mencil, the ethnological consultations

Prof. Jadwiga Kotnowska, the transverse flute technique, subject matter consultation

Prof. Ewa Siemdaj, subject matter consultation

Tiarnan O'Duinnchin, the music of Northern Ireland

Yaron Cherniak, music of ancient Persia, music of Israel

Darius Rasoulli, the Persian ney

Małgorzata Komorowska, subject matter consultation

Józef Broda, the ethnic flutes of the Silesian Beskids

Maria Motyka the, culture of the Trójwieś Beskidzka mountaineers

Piotr Kohut, the shepherds' flutes

Leszek Szewczyk, the flutes and music of Skalne Podhale

Journeys

The journeys were a particular source of knowledge during the discovering and recording of the ethnic ornamentation of the ethnic flutes of Poland and the world. Visiting music houses and sites where the regional tones were heard was a considerable contribution to the broader understanding of cultures of different nations.

Israel: Caesarea, the Dead Sea region, Jerusalem, Sderot, close to Gaza Strip, Tel-Aviv, Palestinian territories, the Timna Desert, the Negev Desert, and Red Canyon. Encounters with Yaron Cherniak, oudist, a well-known in Israel expert on Persian Music.

Northern and Southern China, Beijing, Canton: learning how to play the dizi and xiao flutes for the encountered musicians.

Inner Mongolia, becoming familiar with the Mongolian culture of the inhabitants and encountered musicians.

Turkey, Istanbul, Bodrum, Pammukale. Observation of musical culture in the streets of Istanbul or in restaurants where the compositions played on Turkish oud, or ney were very popular.

Northern Ireland, Belfast, traditional uilleann pipes playing, Tiarnan O'Duinnchin and his students.

Austria, Vienna, Haus der Musik Museum.