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The *Pukl* in Chodsko: The Development and Establishment of the Bellows-blown *Bock* in a Corner of Western Bohemia*

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In the Czech Republic, folkloric musical traditions that include distinctive musical instruments are observable at festivals and annual occasions in the two significant regions of the country, Moravia and Bohemia. Within the context of folklore, the concert hammered dulcimer, or *cimbál*, plays a role in Moravian identity,¹ and in Bohemia, distinctive bagpipes called *dudy* but historically known as *pukl*, are closely associated with smaller regions such as Prácheňsko, near the industrial town of Strakonice in southern Bohemia and in the agricultural and forested region of Chodsko in western Bohemia. The small city of Domažlice is the hub of the latter region, nestled at the foothills of the Bohemian Forest on the border with Bavaria. Although this distinctive bagpipe has become a visual and an auditory symbol of both regions, the introduction and adoption of the *pukl* appears to have taken place initially in Chodsko. Some of the modern *pukl* are, in fact, identical in Prácheňsko and Chodsko, with the primary difference being one of performance practice: in Prácheňsko 80% or more of the *pukl* players are women, whereas in Chodsko it is unlikely that female players comprise more than 10% of the total.² Indeed, the *pukl*'s origins, technical aspects,

*I wish to thank the following individuals: Roger Buckton and Elaine Dobson of the University of Canterbury for their guidance in preparation of this work; each of eighteen participants who collaborated with fieldwork conducted in Chodsko; Albert Rice, Samantha Owens, Janice Stockigt and Christian Ahrens for sharing their research that has helped to outline the history of the *polnischer Bock*; Terence Dobson for the line drawings as well as Michael Vereno and other peers for their suggestions and comments.

1. Jesse Alan Newhouse Johnston, "The Cimbál (Cimbalom) in Moravia: Cultural Organology and Interpretive Communities" (PhD diss., University of Michigan, 2008).

2. In a study conducted in late 2010 that included noteworthy *pukl* players in Chodsko there were a total of eighteen participants of which only one participant was female. Beyond this individual there are only two more female *pukl* players known to have been either active in Chodsko in the past or present. The percentage estimate for the Prácheňsko region comes from multiple observations over more than a ten year period by the author of the makeup of folklore groups from the region, as well as makeup of student groups in the local schools of arts.

details of performance practice, and its makers combine to make the pukl an instrument that can be uniquely linked to the region in which is played, Chodsko.

General Description

The pukl is just one member of the *Bock* or billy-goat family of bagpipes that includes the dudy and pukl in Bohemia, the *gajdy* of Moravia and the Záhorie region in Slovakia, *gajdy* of the Silesian Beskids Mountains (usually mouth-blown in Slovak areas), *dudy* of the Żywiec Beskid Mountains in Poland, and related bagpipes of the northern Orava region in Slovakia. Also included are the *kozol* and *měchawa* of Lusatia, *dudy wielkopolskie*, *koziol biały* (*koziol weselny*) and *koziol czarny* (*koziol ślubny*) of Poland, and the *Dudelsack* (occasionally named *Bockspfeife* or *böhmischer Bock*) in Germany and Austria.

Bock bagpipes are either mouth-blown or bellows-blown and made in a range of sizes and keys. Equipped with heteroglot single-beating reeds, the chanter and separate drone pipe are either fully cylindrical or slightly conical. The drone pipe of various Bock types can be either straight or include an elbow angled at approximately 90°. Depending on the length and configuration of the drone, the drone rests either on a shoulder or hangs before the player. Typically, the chanter and drone pipes end with a bell-shaped section called a *Schalltrichter* (German) or *roztrub* (Czech). They are often constructed from a combination of cow horn and sheet brass. In Lusatia, some Schalltrichter are made of wood. These “bells” amplify the sound and partially determine the timbre of the pipes (c.f., “Horn Bells” section below for further discussion of pipe timbre). Traditionally, the air reservoir bags are made from natural materials such as goat or dog hide, though today some makers also incorporate synthetic materials. Figure 1 illustrates the parts of the present day pukl.

The Bock in Bohemia

The oldest depiction of Bock bagpipes being played in Bohemia is in a painting, *Bauernfest* (1605), by the Flemish painter Roelant Savery (1576–1639), court painter to Rudolf II in Prague.³ The painting, which

3. A color detail (Abb. 30) of this painting in the Galerie Müllenmeister, Solingen is included in Georg Balling et al., *Der Dudelsack in Europa : mit besonderer Berücksichtigung Bayerns* (Munich: Bayerischer Landesverein für Heimatpflege e.V., 1996), 37.

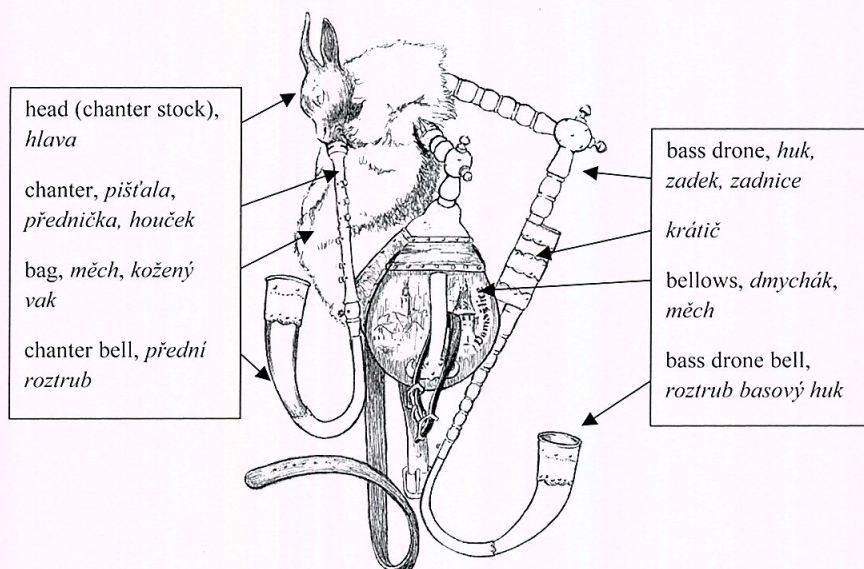


FIGURE 1. Parts of the present-day pukl as played in Chodsko. The larger belt is fastened snugly around the player's waist while the smaller belt is placed above the left elbow. The upper bellows plate has become a place for expression of local identity. Architectural symbols of Chodsko including the Chod Castle and Lower Gate, as well as names representing places, such as Domažlice and Chodsko, are often to be found on pukl in Chodsko. This pukl was made by Miroslav Janovec of Malonice in 2004. (Drawing courtesy of Terence Dobson.)

was probably rendered in Bohemia as its date falls within the period Savery spent in Prague, includes two pipers playing large mouth-blown Bocks similar to the *großer Bock* illustrated by Michael Praetorius in *Theatrum Instrumentorum* (1620–Plate XI).⁴ Unfortunately, the written and iconographic record is sparse between this period and the first quarter of the nineteenth century, but it seems reasonable to believe small and medium variations of the *großer Bock* as described by Praetorius might have also existed in the intervening years. So, as there was a *großer Bock*, there was in all probability a *kleiner Bock* with a possibility of an array of other sizes.

4. Michael Praetorius, *Syntagma musicum Band II De Organographia Wolfenbüttel 1619 Faksimile-Nachdruck herausgegeben von Wilibald Gurlitt* (Basel: Bärenreiter, 1958), plate XI.

Bagpipes and Terminology in Chodsko – Dudy and Pukl

In Chodsko two primary terms are associated with bagpipes: dudy and pukl. The meaning of “dudy” has taken on various roles. For example, the smaller-sized *kleine Bock* bagpipes might have been known as dudy among nineteenth century Czech-speakers of Chodsko. Today, however, the Czech word “dudy” functions in a broad manner, in much the same way “bagpipe” does in English. To the modern Czech mind it often recalls the Scottish Great Highland bagpipe more than any other “native” or “Czech” bagpipe. The large bellows-blown *Bock*, normally in E-flat, also commonly known as dudy, is taught primarily at elementary schools of arts in parts of the Czech Republic that have strong folkloric association with bagpipes. For example, in Chodsko, this instrument is taught in Domažlice and in its branch school in the village of Klenčí. These programs, taught in the framework of folklore at each of the schools, are largely responsible for the number of competent bagpipers or *dudáci* in the region. Regardless, although “dudy” is the term most often applied to the bagpipe played in Chodsko, this does not reflect historical usage. At one time, another term, “pukl,” was reserved for these bellows-blown instruments, while “dudy” referred to the smallish mouth-blown *Bock* bagpipes. Additionally, the word “pukl” lives on in Chodsko as the local word applied to the cantankerous domestic billy-goat. It is probable that the origin of this uncommon Czech word comes from the southern German dialect words *Bockl* or *Böckle*, words that also mean billy-goat.⁵

However, period sources indicate that “dudy” and “pukl” were used unambiguously in Chodsko for different types of bagpipes. An excerpt from an article from *Český lid*, an early nationalistic Czech ethnographic journal, illustrates the usage of these terms during the first quarter of the twentieth century. Here, the different bagpipes known in Chodsko as dudy and pukl are highlighted in a posthumous tribute to Wolfgang Šteffek (1842–1923), one of the chief makers of these instruments:

5. Michael Vereno, personal correspondence, June 7, 2011 and September 5, 2011. Vereno, an Austrian linguist, suggested that it is also possible that the word “*pukl*” might come from Austrian dialect words “*Buckl*” or “*Bugl*.” These are forms of *Buckel* or *Puckel*, meaning a person’s back, while another sense of *Buckel*, even more intriguing, has the literal meaning of a curve or bend, which might reference the “bent” drone pipe of the pukl. These definitions of “*Buckel*” and “*Puckel*” are from the *Etymological Dictionary of the German Language*, s.v. “*Buckel* (2), *Puckel*,” by Friedrich Kluge, (New York: George Bell & Sons, 1891), 47. Nevertheless, the origin of the Czech word *pukl* is assuredly German.

From his hands came two types of ancient bagpipes. . . . The first more ancient, called in Chodsko by its own name *dudy*, mouth-blown, tuned in high keys, mostly in G major, C major and D major; and the second, newer type called the *pukl* with a drone pipe that went over the shoulder [of the player], with bellows, and in E-flat major. And it was nearly impossible to find two instruments that were exactly the same. Each had its own special character.⁶

In the same vein, Bohumil Kraus (1908–1986), a well-known player of the *pukl*, touched upon the divergent use of each term as well as each instrument, again the mouth-blown *dudy* and the bellows-blown, *pukl* or *puklík* (diminutive form), in Chodsko:

The natural and right Chodsko music or “rural music” consists of four instruments: clarinets, E-flat and B-flat, violin and *dudy*, or better said *puklík*. This band always had the *puklík*; it did not have the mouth-blown *dudy*. It would have been very difficult to play these in the small village pubs filled with swirling smoke. Sometimes in “rural weddings” the bagpiper played on both instruments. At wedding ceremonies, he played the *dudy*, but as soon as the wedding guests gathered in pubs to dance, the *dudy* was hung on a nail and the bagpiper took up the *puklík* for greater sonority and strength of tone.⁷

Additionally, oral testimony given by Jan Kobes (1849–1929), a well-known player of the *pukl* in the Chodsko, also kept the distinction between the two types by means of label and configuration, that is, mouth-blown vs. bellows-blown, and further implied that the *pukl* was not developed in Chodsko but was introduced to the region during the middle decades of the nineteenth century.

[He] said that at the beginning his father still played on the mouth-blown *dudy* (the bag was blown up with air from the mouth), but later he only

6. Ladislav Rutte, “Bolfík Štefek, výrobce chodských dud v Oujezdě u Domažlic,” *Český lid*. 24 (1924): 183. “Z jeho rukou vycházely oba typy starodávneho nástroje[...]. První starobylejší, zvaný na Chodsku vlastním názvem ‘dudy,’ nadýmaný ústy, laděný ve vyšších tóninách, ponejvíce v g-dur, c-dur, a d-dur, druhý novější zvaný ‘pukl’ s ‘hukovou’ trubicí přes rameno, nadouvaný měchem, v es-dur. A bylo ztěžší naléztí dva úplně stejné nástroje. Každý měl svůj zvláštní ráz.”

7. Bohumil Kraus, “Chodská muzika,” in *Rudolf a Jan Svačina: Obrázky z Chodska* (Domažlice: R[udolf] Svačina, 1940), 83. “Přirozená a pravá muzika chodská čili ‘selcká’ se skládá ze čtyř nástrojů: klarinetu Es a B, houslí a dud, lépe řečeno ‘puklíka’. K muzikám se totiž brával vždy *puklík* a ne foukací dudy. Na ty by bylo hraní v rozvířeném a zakouřeném vzduchu malých vesnických hospod velmi obtížné. Při ‘selckých svarbách’ hrával někdy dudák na oba nástroje. Při obřadech svatebních hrával na *dudy*, jakmile však svatebčané se sešli do hospody k tanci, pověsil dudy na hřebík a vzal *puklíka*, pro větší zvučnost a sílu tónu.”

played on the pukl. Apparently, it [the pukl] was brought to the region [Chodsko] by some šlejfir̄ from Bavaria. The pukl proved itself. Being that it was not nearly as strenuous [to play] it replaced the dudy completely.⁸

Figure 2 is a replica of Bohemian mouth-blown dudy made by Juraj Dufek of Bojnice, Slovak Republic, and in comparison, figure 3 is a pukl made by Jakub Konrady ca.1960. This pukl has the trademark bent cow horn bells made from the horn of the Hungarian Grey longhorn cattle. In order to illustrate the size and location of the finger-holes, the chanter is turned from its normal playing position. The design of the head is one of four known styles used by Konrady.

The substitution of the dudy with the pukl likely took place within the span of a generation. It is improbable that a whole generation of players retired their dudy while adopting the pukl at the same time. It was probably the generation active in the last quarter of the nineteenth century that chose the pukl over the dudy. Today it is clear, mouth-blown dudy have fallen from favor and the bellows-blown bagpipes are firmly established as the instrument of choice. Mouth-blown dudy are rarely played in Chodsko and can be generally characterized as being unknown,⁹ while versions of the bellows-blown pukl are played typically in the context of folklore performances in public and private spaces.

As important as these historic distinctions are in use of the bagpipe and its terminology, the word “pukl” has fallen into general disuse in Chodsko and the word “dudy,” which once identified a small mouth-blown instrument, has become most commonly associated with the larger bellows-blown pukl. Nevertheless, additional historic, and little-used nomenclature exists for pukl and puklík. In addition to dudy, other terms are employed today in Czech, German and English. These terms include *české dudy*, *böhmischer Bock*, *tschechischer Dudelsack* (all meaning Bohemian or Czech bagpipes), *chodské dudy* (Chodish bagpipes), and *kozel* or *kozlík* (meaning billy-goat). Most of these labels indicate that the instrument is perceived as having close links with Bohemia and

8. Rudolf Svačina, *Dudáci a dudácká muzika na Chodsku [Bagpipers and bagpipe bands in Chodsko]* (Domažlice: Okresní národní výbor, 1990), 21. “Hondza nám vypravoval, že táta hrával zpočátku ještě na původní nafukovací dudy /měch se nadýmal ústy/, ale později hrál už jen na pukla. Přinesl prý ho do kraje nějaký šlejfir̄ z Bavor. Pukl se osvědčil. Hraní na něj nebylo zdaleka tak namáhavé, a tak brzy dudy úplně vytlačil.”

9. Josef Kuneš, personal correspondence, April 19, 2011. During the 1980s, Vladimír Baier, the respected musician and ethnographer of Chodsko, made and played a mouth-blown *dudy* in C. It is now owned by Josef Kuneš in Domažlice.

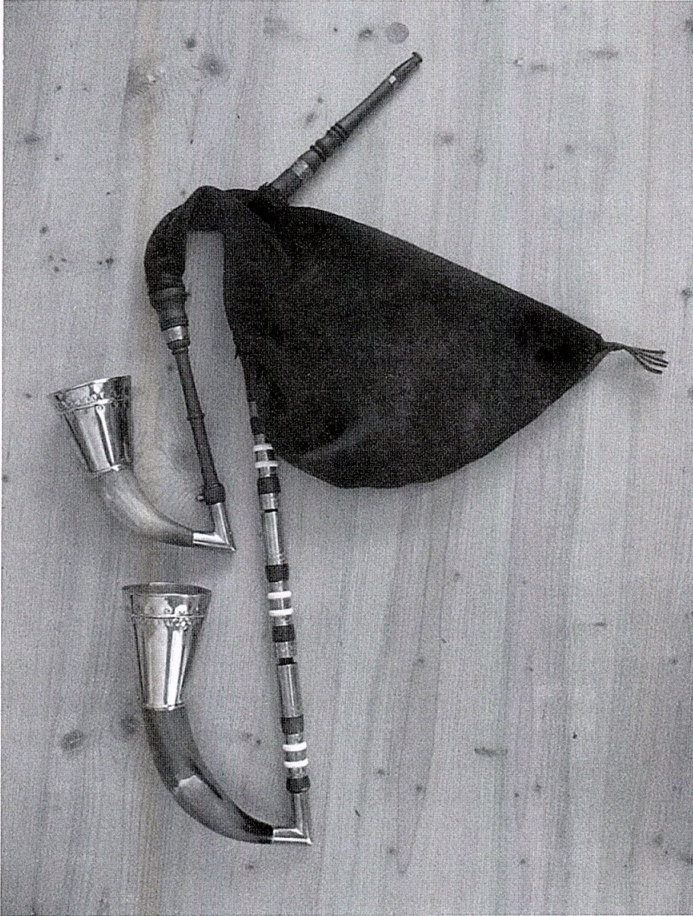


FIGURE 2. Replica of Bohemian mouth-blown dudy commissioned by the author and made by Juraj Dufek of Bojnice, Slovak Republic.

Chodsko. This is a valid line of reasoning, as the instrument has a noteworthy uninterrupted record in local historic tradition as well as subsequent folkloric traditions. Hence, with all of these labelling possibilities, it seems prudent for clarity in scholarship that the words *dudy* and *pukl* retain their historic distinctness. Namely, *dudy* is reserved for the smallish mouth-blown Bock while *pukl* is assigned to the larger bellows-blown bagpipe played in Chodsko today.



FIGURE 3. Pukl made by Jakub Konrady ca.1960. This example has the trademark bent cow horn bells made from the horn of the Hungarian Grey longhorn cattle. In order to illustrate the size and location of the finger-holes, the chanter is turned from its normal playing position. The design of the head is the third of four styles used by Konrady. (Photo courtesy of Lubomír Jungbauer.)

History of the Pukl before its Introduction to Chodsko

The configuration of the pukl, which in Chodsko is thought of as Czech or Bohemian, ironically, appears to be the result of innovations incorporated into the *polnischer Bock* (Polish Goat). Initially this bagpipe probably looked much like the *großer Bock*, if not the same instrument, as illustrated and described by Michael Praetorius in Germany. Versions of the *polnischer Bock* are known to have been played at German courts such as Württemberg, Dresden, Weimar, Gotha, and elsewhere. An article by musicologist Samantha Owens reveals that the *polnischer Bock* was familiar in the Württemberg court and suggests that the instrument was played elsewhere as well.¹⁰ Indeed, documents indicating the appar-

10. Samantha Owens, " 'Gedancken für ein gantzes Leben' Polnischer Bock music at the Württemberg court c1730," *The Consort* 54 (1998): 43–56.

ent ceremonial role that the groups of *Bockpfeiffer* played at the Dresden court in the 1730s–1740s have been discovered and shared by another musicologist, Janice Stockigt.¹¹ Stockigt and other contributors to *Music at German Courts, 1715–1760: Changing Artistic Priorities* mention *Bockmusik* or *Bockpfeifer*, giving further indication that the *polnischer Bock* was not uncommon.¹² Moreover, Christian Ahrens has discovered that there were Bock players active at the court in Weimar (ca.1700) and again from 1732 to 1746,¹³ as well as at other courts, including Weißenfels, whose players apparently visited Gotha.¹⁴

Chodsko and Aspects of Association with the Pukl

The geographic area in which the pukl is played is distinct. Chodsko is one of the most important ethnomusicological regions in Bohemia partially because of its association with the pukl, but not unlike other regions having rich cultural traditions, Chodsko does not rely on one tradition for its cultural identity. It also has a distinctive national dress or *kroj*, and the region is known throughout the Czech Republic for a special pastry called the *chodský koláč*. Perhaps more important is a core of national songs including “Žádnýj neví co sou Domažlice” and “Zelený hájové” that are considered to have originated in Chodsko.

The pukl has been associated with Chodsko in fiction written for adults and children alike, but perhaps the most common way the pukl is linked to Chodsko is within the pages of travel literature for the region. Rarely does a brochure promoting Chodsko omit either written or graphic references to the pukl.

For those who are interested in hearing the pukl in Chodsko, the best option is to attend the annual showcase for Chodish folklore. The Chodish Festival, which takes place annually in August in Domažlice highlights the region’s traditions. Performances that include the pukl can be heard and seen at multiple outdoor venues as part of folklore performances by local costumed performers. There are multiple combinations of instrumentation by which the pukl can be experienced at the festival. The pukl might be presented as a solo instrument or in combination of

11. Jan Stockigt, personal correspondence, May 7, 2009.

12. Samantha Owens, Barbara M. Reul, and Janice B. Stockigt, eds. *Music at German Courts, 1715–1760: Changing Artistic Priorities*. (Woodbridge, Suffolk: Boydell Press, 2011).

13. Christian Ahrens, personal correspondence, December 10, 2010.

14. Christian Ahrens, personal correspondence, June 28, 2010.

two or more can be played at the same time with the results ranging from great musical effect to spectacle. A popular combination has been the combination of pukl and violin, which can result in a most effective arrangement. For example, figure 4 shows a procession of representatives from Chodsko to the 1836 coronation of Ferdinand I and Maria Anna Augusta as King and Queen of Bohemia with the mouth-blown dudy and violin in much the same ensemble as one finds the pukl. The typical historic combination of instruments in Chodsko is a trio called *malá selská muzika* (“small rustic band”), which includes a pukl, violin and E-flat clarinet. Later, this group was augmented with a B-flat clarinet, additional violins, and string bass. Often the role of these ensembles includes playing for dancers demonstrating lively Chodish folk dances.

Clearly, there are multiple paths through which Chodsko and the pukl have become associated. Further, however, some of the earliest associations between Chodsko and the pukl fell within context of nineteenth-century Czech nationalism. In the literary realm, this association is primarily owed to the author Alois Jirásek (1851–1930) and his work *Psohlavci*, an historical novel set in Chodsko in the late seventeenth century. It is an account of the peasant revolution led by Jan Sladký Kozina in which his best friend, Jiskra Řehůřek, the *dudák* (bagpiper) plays an active role. This novel, first published in 1884 as a series in the magazine *Květy*, which supported a Czech nationalist agenda, was given a new voice in operatic form with music by Karel Kovařovic (1862–1920), which premiered in 1896. These links are especially relevant as pukl, not dudy, have been used in illustrations within the works of fiction as well as included in stage in productions at the National Theater in Prague and in other theaters in Bohemia.

The above examples chiefly demonstrate how those living outside of Chodsko have come to associate the pukl with Chodsko. Within the region today, the pukl is very much a part of lives of a group of people who are involved in the region’s folklore. Occasionally a pukl player is invited to play for a birthday celebration or some private celebration. These are events where the pukl player is likely personally known by the invited guests, and most of the guests in attendance would likely have had some previously-established link to the folklore of the region. However, it would not be a true representation to indicate that all appreciate the pukl. Not all living in Chodsko consider the pukl as a critical part of the region’s make-up, as all aspects of folklore exist within an environment with competition for interest from the trends of popular music. On the



FIGURE 4. A procession of representatives from Chodsko to the coronation of Ferdinand I and Maria Anna Augusta as King and Queen of Bohemia. The typical instrumentation of folk music of Chodsko is able to be observed here, the mouth-blown dudy with violin. A copy of this painting, *Bohmische Bauernhochzeit* (1836), is on display at the Muzeum Chodska in Domažlice. (Photo by the author, courtesy of the Muzeum Chodska.)

other hand, the pukl is presented as a major aspect of Chodsko's cultural heritage. The pukl is commonly played for visiting dignitaries, guests as well as international tourist groups. Perhaps one event that is most illustrative of this was the visit of the President of the Czech Republic, Václav Klaus, to Domažlice in the summer of 2009. Not only was he greeted at the town hall by a folklore ensemble featuring the pukl, but he was presented with a pukl made by local maker Jan Frei as a gift from the city.

As notable as all the associations are between the Chodsko and pukl of the past, it appears the main vehicle for the pukl's continued success and relevance in Chodsko is that it has excellent support from local institutions. This is demonstrated in two ways. First, the pukl has been taught in the local elementary school of arts since the 1950s, enjoying national and local support for operation expenditures. Second, the pukl given to President Klaus in 2009 illustrates that support from local government is not lacking, as the presentation was organized and paid for by the cultural branch of the city's government. All told, the pukl and Chodsko have enjoyed a positive relationship without any indication of decline on the horizon.

Construction/Technology: A look at Major Components of the Pukl

Horn Bells (Schalltrichter or roztrub). Upturned bells, known as *Schalltrichter* or *roztrub*, at the ends of the chanter and drone pipes, are characteristic of the pukl, with various approaches to making and attaching these bells to the chanter or drone. In nineteenth-century Bohemia, most Bock-type bagpipes were fitted with an elbow made of tubing with an approximate angle of 45°. This elbow connected the end of the chanter or drone with prepared cow horn. Another variation used by makers replaced the sharp-angled elbow with a long, curved connector made of metal, typically brass. A third type discards the approach of creating horn bells composed of a combination of metal and horn with the utilization of a one-piece bell made from sufficiently long cattle horns. As this style was known in Bavaria, it might have been introduced to Chodsko with the first pukl, and these horns appears to have been a feature of historic examples of pukl extant in Bohemia that are thought to have Bavarian provenance.¹⁵

Bell design has a significant influence on timbre and volume produced by either the chanter or drone pipe. It is easy to discern these changes by exchanging one type of horn for another on the same pukl, as horn bells have negligible influence on the pitch of the chanter. Indeed, chanters function perfectly well without a horn bell, as all of the sounding lengths of useable pitches are within the chanter itself. A pukl played without a bell on the chanter plays at a significantly lower volume than if a chanter has a bell. Therefore, pukl are nearly always played with its chanter bell in place. It is easiest to experiment with volume and timbre possibilities of a pukl by exchanging and trying various types of horn bells on the chanter rather than the drone. Accordingly, a simple exchange of horn bells would not be possible on the drone, without adversely affecting pitch, as the sounding length would be altered with such an exchange. When horn bells with sweeping brass elbows are replaced with elbows of 45°, the auditory volume is reduced significantly. Moreover, the timbre typically changes from an aggressive sound to one favoring a covered or muted sound.

15. Bearing in mind the oral history of the pukl's introduction to Chodsko from Bavaria, extant examples of historic pukl in Bohemia have features such as one-piece cow horn bells that are not attributable to any specific Bohemian maker but which are consistent with Bavarian examples.

Reeds. The reeds used in the chanter and drone pipe of the pukl are both heteroglot single-beating reeds. They are both identical in design, but differ primarily in length; the drone reed is longer than the chanter reed. Not surprisingly, the length of the reeds is also related to the key and pitch of the pukl. The standard pukl in Chodsko is tuned to E-flat, and chanter reeds for this key are made in range in overall length from about 50–60 mm and the drone reeds are approximately 60–70 mm in length. Each of the reeds consists of three components: a reed body, a reed tongue, and thread that binds the two together. Modern reed bodies are typically made from a tubular section of brass, with a diameter of about 6 mm, one end filled with metal. From this end, where the lay is at its greatest, the body is machined with the lay continuing to run approximately 75% of the length of the reed body. The maximum angle at which the lay is created is approximately 2°. The reed tongue, made of cane, is fashioned and then secured to the body by string that is wrapped around both the reed body and the reed. In certain instances, a drop of beeswax sometimes minuscule, but at other times significant, can be observed having been placed near the middle or near the free end of the reed tongue. While not found on all examples, this beeswax assists with tuning and reed stabilization.

Bellows. Among the earliest iconographical evidence for the use of the bellows with the Bock comes from an illustration in Johann Christoph Weigel's *Musicalisches Theatrum* ca.1720 (fig. 5). Here, the piper is playing the polnischer Bock for finely-dressed couples dancing in the background. Bellows were a feature of another bagpipe, the French *musette de cour*.¹⁶ Interestingly, there is a possible link between the *musette de cour* and the adaptation of bellows to the Bock.

It is still difficult to gauge to what extent the *musette de cour* was played at German courts, but in addition to iconographic evidence, Christian Ahrens has shared portions of an inventory of instruments (1708)¹⁷ of Duke Johann Ernst III of Saxe-Weimar that includes not only

16. French bagpipes with bellows were already known to Michael Praetorius in the early seventeenth century, as he included an illustration of what he termed "*kleine Sackpfeiff*" or "*Hümmelchen*" on plate XIII of *Theatrum Instrumentorum*.

17. Christian Ahrens, personal correspondence, June 28, 2010. "Thüringisches Haupt-Staatsarchiv Weimar, Fürstenhaus A 628b: 'Die Teilung zwischen Herzog Johann Ernst zu S. Weimar und seinen nachgelassenen Kindern,' fol. 100v–105v [Inventory of all instruments in possession of the former duke] fol. 104v [97] Zweÿ hummel Pfeiffen



POLNISCHER BOCK

Ich bin ein schöner Mensch, und kann so trefflich pfeiffen
 auf den anmuthigen Bock, daß manchen übel wird:
 auch wie die Bären selbst ein Menuet begreifen.
 Doch weil von vieler Art die Hölle ganz abgetret
 so schmeckt ihr Tänzerin, die trotz den Bären springen
 mir bald was in den Bock: so will ich lustig singen.

FIGURE 5. Johann Christoph Weigel, Illustration of polnischer Bock by Johann Christoph Weigel, note presence of bellows and 90° angled drone pipe. *Musicalisches Theatrum*, vol. 22 of *Documenta musicological Druckschriften-Faksimiles*, ed. Alfred Berner (Kassel: Bärenreiter, 1961), Blatt 31.

“*Vier Bolnische Böcke*” [Four *polnischer Bock*] but also “*Dreÿ Sack Pfeiffen, eine von Violet, die andere von roth u. die dritte von schwarzen Sammet*” [Three bagpipes, one in violet, the other one in red and the third in black vel-

[Sackpfeifen?] NB. Vorstehende Instrumenta sein izo in Fürstl: Gemach. \ fol. 105r [108] Dreÿ Sack Pfeiffen, eine von Violet, die andere von roth u die dritte von schwarzen Sammet. N.B. Diese liegen im Fürstl: Schlaf Gemach in einer Schachtel sub. No. 20. [109] Dreÿ Sack Pfeiffen. [110] Vier Bolnische Böcke. NB. Sein in der Dreh Cammer. [111] Ein Dutel Sack. [i.e. Sackpfeife].”

vet.] These last three bagpipes were quite possibly musettes de cour.¹⁸ Musettes de cour typically were equipped with “bag-covers . . . of rich silks, often covered with embroidery and bordered with metallic fringe and tassels.”¹⁹ In the inventory from Weimar, *Sammet* or velvet is specifically stated in association with the three *Sack Pfeiffen*. Before the development of synthetic fibres, silk was the preferred material used to make velvet. Therefore, it is not unexpected, in this context, that the bag covers of musettes de cour are described as being of either silk or velvet, and it provides a partial basis for the supposition that the three coloured Sack Pfeiffen in the inventory were musettes de cour. The presence of three musettes de cour—possibly bellows-blown—in addition to four polnischer Bock at a German court before 1708, is significant. It might help to account for bellows being adapted sometime before the 1720s to the mouth-blown Bock. The musicians, particularly the German noblemen and noblewomen who presumably played the musette de cour, would have been familiar with the advantages bellows offered and may have suggested the adaptation of the bellows to the polnischer Bock that were played by some of their employed *Bock-Pfeiffer*.

Bordunverkürzer-krátíč. One of the innovations incorporated into the polnischer Bock, at least in southern parts of Germany, was a bored block of wood known in German as *Bordunverkürzer* and in Czech as *krátíč*, which is an apparatus much like the *Buch* (Ger.: “book”) employed on the basset horn. This has been subsequently retained in the pukl. The Bordunverkürzer and Buch are essentially rectangular shaped blocks of wood with three parallel cylindrical bores drilled lengthwise. These three passages are then connected by two short bores, one near each end perpendicular to the original three bores. Appropriate portions of the passages are then plugged with wooden dowels, forming a single passageway. When the Bordunverkürzer is inserted to replace other sections of the drone pipe, it creates a “folded drone,” thereby shortening the external length while maintaining the sounding length of the drone pipe. The advantages of making the drone pipe more compact is that the Bock becomes significantly less cumbersome and the entire instrument

18. Michael Vereno, personal correspondence, June 28, 2010, writes that the three bagpipes with colored velvet might be *musettes de cour*. Christian Ahrens is in agreement with this (personal correspondence, June 29, 2010).

19. *Grove Music Online*, s.v. “Bagpipe,” by William A. Cocks, et al., accessed September 5, 2011, <http://www.oxfordmusiconline.com/>.

can hang on the player's shoulder thereby providing a sense of stability and comfort for the player.

The length of the vertical portion of the drone pipe (hanging from the partially obscured large cross or *velký kříž*) of the polnischer Bock in Weigel's *Musicalisches Theatrum*, suggests that a Bordunverkürzer is not present. If a Bordunverkürzer was present, the end of the drone pipe would appear to be a greater distance from the ground. As there are not any known polnischer Bocks that can be positively dated from this period, it is necessary to find evidence for the incorporation of the Bordunverkürzer in other contexts. A partial answer to the issue of when the Bordunverkürzer was incorporated into the design of the polnischer Bock comes from porcelain figures from the first half of the eighteenth century made by the Meissen and Höchst factories in Germany. One of the earliest indications of the folded drone concept being applied to the polnischer Bock can be observed on a Meissen figure ca.1740 (fig. 6).²⁰ It is not clear whether the piece indicates a true one-piece Bordunverkürzer, but it might demonstrate the system used on Sorbian and Polish types of the Bock bagpipes where the same goal of shortening the overall external length of the drone pipe is accomplished with three wooden tubes whose bores are connected with two u-shaped sections of metal tubing bundled together.

The earliest example of the existence of what appears to be a Bordunverkürzer, similar to that used on the present-day pukl, is a stucco-rendered example from ca.1760, in the *Steinerner Saal* in Nymphenburg Palace near Munich. Having reliable evidence for the integration of the Bordunverkürzer into the polnischer Bock in Bavaria by about the middle of the eighteenth century, one might consider its relationship to the adaptation of the very similar device, the Buch, to the basset horn. Albert Rice observes:

The earliest basset horns that are extant today date from about 1760 and are unmarked instruments thought to have been made in southern Germany. These do include the "Buch" or "Kasten" where the bore travels in three directions, down, up, and then down, before exiting through a brass or wooden bell. . . it is possible that basset horns built with a "Buch" existed by the early 1740s but further evidence to support this conclusion is lacking.

20. "332 *Harlequin* with a bagpiper formed as a billy-goat. Meissen, model by J. J. Kaendler, about 1740. H. 13.3 cm. Untermyer Collection, Metropolitan Museum of Art, New York," Peter Wilhelm Meister and Horst Reber, *European Porcelain of the 18th Century* (Ithaca: Cornell University Press, 1983), 185.

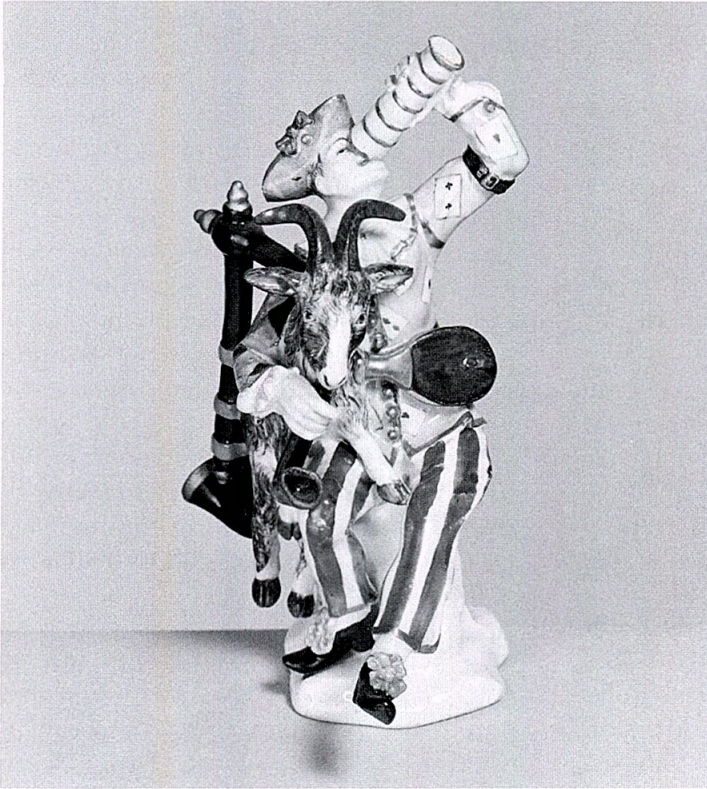


FIGURE 6. The Commedia dell'Arte character Harlequin with a polnischer Bock having a “folded drone.” Meissen porcelain (ca. 1740). (Photo courtesy of the Metropolitan Museum of Art, New York.)

. . . Therefore, if I were pressed on the first use of the “Buch” on the basset horn I would say about 1760.²¹

The apparent application of this similar device to two musical instruments, the polnischer Bock and basset horn, at an analogous time in Bavaria, while certainly speculative, suggests some commonality. Perhaps some makers were making both basset horns and turning components for polnischer Bock or were otherwise somehow aware of this innovation. This perception is supported by the observation that it was on “southern” German versions of polnischer Bock that the Buch-like

21. Albert Rice, personal correspondence, March 5, 2007.

component appeared, not the “northern” Bock bagpipes such as the *kozoł* and *měchawa* of Lusatia, *dudy wielkopolskie*, *koziół biały* (*koziół weselny*), and *koziół czarny* (*koziół ślubny*) of Poland where the one-piece block-style *Bordunverkürzer* has never been utilized.

While it appears that the *Bordunverkürzer* (German) or *krátíč* (Czech) has been applied to the *polnischer Bock* as early as the 1740s (Meissen porcelain) and certainly by the 1760s (Nymphenburg Palace), the earliest dated example extant in Bohemia bears the date 1820 (fig. 7 and fig. 8). This is part of an incomplete *pukl*, having no inventory number, in the ethnographic department of the National Museum in Prague.

Baroque and Classical Polnischer Bock

Beyond providing evidence for the mid-eighteenth century utilization of the *Bordunverkürzer*, the rendering of the Nymphenburg *polnischer Bock* indicates that some of the baroque characteristics have been put aside and a more practical and less cumbersome, perhaps “classical,” *Bock* is the result. Specifically, the principal aspects of the baroque *polnischer Bock*’s bizarre appearance was the retention of not just a goat’s hide, but its head, four legs, and tail. While “baroque” *polnischer Bock* were certainly striking, there were drawbacks. There would have been considerable time and expense spent on taxidermy as well as being cumbersome with retention of the goat’s head and legs. Consistent with “classical” musical thought where symmetry, simplicity, and elegance were principle concepts, a less bizarre *polnischer Bock* reflecting these principals emerged. A *Bock* with only a representative goat’s head and tail and no legs was still sufficient for visual impact. Effectively, this streamlined “classical” *polnischer Bock* which appeared in the middle of the eighteenth century was the type introduced into Chodsko in Bohemia in the nineteenth century.

The Influence of the Clarinet on Pitch

Before the introduction of the *pukl* to Bohemia, the traditional group found playing in pubs consisted of the *dudy* with one or two violins.²² These violins were likely “short-fiddles” known as *Kurzhalsgeige* (German) or *zkrácené housle* (Czech) having smaller bodies and appreciably shorted

22. Jana Eksteinová, “Vývoj hry dudáckých muzik na Chodsku [The development of bagpipe music in Chodsko]” (*Pedagogická Fakulta v Plzni*, 1982), 33.

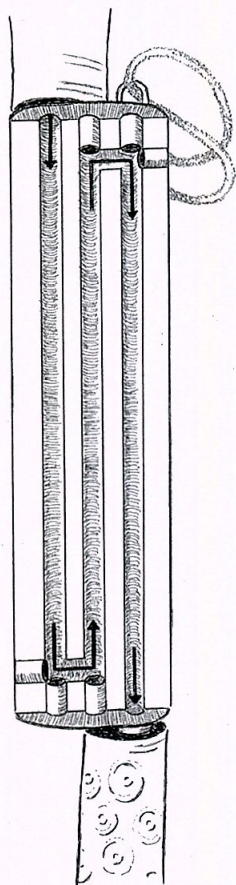


FIGURE 7. Cutaway view of the earliest dated example (1820) of a krátič extant in Bohemia. No inventory number. Národní muzeum – Historické muzeum – Národopisné oddělení, Letohrádek Kinských, Kinského zahrada 97, Prague 5. (Drawing courtesy of Terence Dobson.)

necks in comparison to full-sized versions.²³ It is supposed that the dudy were tuned in C or G major. After the adaptation and substitution of the dudy with the pukl in Chodsko, which is tuned to an E-flat drone with chanter sounding b-flat, d', e-flat', f', g', a-flat', b-flat', and c'', E-flat clarinets played by musicians returning from service in the Austrian military, were included to form a trio called *malá selská muzika*. These groups played in pubs weekly and on special occasions such as *masopust* (carnival) and weddings in a quasi-polyphonic style. The pukl and E-flat

23. For a description of these violins see Daniela Urbancová, *Egerländer Volksmusikanten mit Dudelsack und Kurzhalsgeige: ein Beitrag zum musikalischen Brauchtum des Egerlandes* [Cheb folk musicians with bagpipes and short-necked violin: a contribution to the musical traditions of the Cheb region] (Prague: Editio Bärenreiter Praha, 2002), 52–68.



FIGURE 8. Detail of the date on the oldest dated krátič known in Bohemia (1820), no inventory number. (Photo by author; courtesy of the Národní muzeum – Historické muzeum – Národopisné oddělení, Letohrádek Kinských, Kinského zahrada 97, Prague 5.)

clarinet were played in octaves, while the violin filled in with mostly thirds and sixths. The short-fiddle was eventually replaced with full-sized factory violins whose strings were “tied down” to a secondary nut, which provided the same advantage a capo does to a guitarist. The fiddler could stay in first position and play easily in the required key and utilize open strings. Photographs and recordings of fiddlers in Chodsko indicate this performance practice lasted into the 1920s.²⁴

24. Eksteinová, “Vývoj hry dudáckých muzik na Chodsku [The development of bag-pipe music in Chodsko],” Part 2, plate 14. In the photo of the Jiří Kajer band, taken before the Second World War, this arrangement is clearly observable. See also Michael Cwach, “Josef Šnabl, Ondřej Ludvík and the Artistic Company of 1920: Journeys of Life, Musical Performance and Research,” *Kosmas: Czechoslovak and Central European Journal* 24/2 (Spring 2011), 62–81 for further description regarding this performance practice of fiddle players in Chodsko.

Some pitch anomalies still exist in Chodsko and these can be linked with the clarinet. If only the pukl and violin were played together then there would be no need for a key or pitch standard, as the violin could be finely tuned to the pukl. However, with the adoption of the E-flat clarinet, the pukl and violin were required to tune to the clarinet.²⁵ Thus the history of the pitch of the pukl in Chodsko is linked to the pitch of the clarinets used in Chodsko.

As Bohemia was part of Austria in the nineteenth century, the pitch of the clarinets played in Chodsko was likely based on the pitch standard of Austrian military bands prevalent in Bohemia. Well-known bands were in nearby regional centers such as Klatovy and Plzeň. Additionally, a painted wooden target (ca.1860) on display in the Chodish museum in Domažlice shows a military band playing on a small square in that city, clearly demonstrating that military music was known. Consequently, it can be assumed that the pitch A = 460 Hz based on the 1880 Austrian military high pitch,²⁶ and the slightly higher standard A = 461 Hz²⁷ based on the Andreas Leonhardt regulations, in effect from 1851 to 1929, give a reliable indication of pitch for those periods.

Other observations regarding pitch in Chodsko are made in the literature. Arnošt Kolář, a priest who lived in the region and took a special interest in the pukl, wrote in 1958 that the pukl was tuned to both E-flat major and E major based on A = 435 Hz,²⁸ indicating, in actuality, that low-pitch and high-pitch versions of the pukl were being played in the Chodsko region at that time. E based on A = 435 Hz is equivalent to high-pitch E-flat based on A = 461 Hz. Ninety-year-old Jan Kuželka, told his grand-daughter that he and his father, Josef Kuželka, started a dance band in 1941 playing in the style of Rudolf Antonín Dvorský. They were the first group to adapt the low-pitch instruments in Chodsko sometime after the Second World War.²⁹ These two references indicate that for

25. Eksteinová, "Vývoj hry dudáckých muzik na Chodsku [The development of bagpipe music in Chodsko]," 33.

26. Brian Blood, "Music theory online: pitch, temperament & timbre, lesson 27" ["History of Musical Pitch" - a table prepared by Mr. A. J. Ellis and published in 1880 (with additions from later publications)], <http://www.dolmetsch.com/musictheory27.htm>, accessed April 30, 2011.

27. Václav Blahunek, personal correspondence, October 19, 2006. Blahunek is a Chief Director of the Prague Castle Guard /Czech Police Band and obtained this information from the book *Vojenská hudba (Military Music)* by Robert Šálek, 1956.

28. Arnošt Kolář, *Dudy [Bagpipes]* (Mlýnek: Arnošt Kolář, 1958), 7.

29. Martina Morysková, personal correspondence, May 2, 2011.

almost two decades low-pitch and high-pitch instruments were being played in Chodsko. All of the high-pitch instruments were not replaced immediately upon their first appearance in Chodsko in 1941, but likely declined as older players withdrew from active playing. Taking the question of pitch into more recent times, Zdeněk Bláha, well-known figure in Czech folklore, wrote that pitch of the pukl ranged from A = 440 Hz to A = 445 Hz in Chodsko.³⁰

Complete pitch uniformity is still not found amongst the pukl players of Chodsko, and the range is even greater than Bláha reported. From November 2010 to February 2011, eighteen pukl players in Chodsko were interviewed and recorded, and in all cases, these performers had their chanters reasonably well in tune with the drone. The pitch of the drone pipes of the participants was measured during interviews. In some cases the pitch was determined from recordings of these sessions. The findings are accurate within an acceptable tolerance, that is + or – 1 Hz, showing that the pukl played in Chodsko today are tuned in a range from A = 439 Hz to A = 449 Hz (table 1). While twelve of the players can be placed into a group ranging from A = 439 Hz to A = 443 Hz, there was another group of six players in the A = 445 Hz to A = 449 Hz range. All in the second group, with one exception, have either direct or secondary connections to the folklore ensembles in the village of Mrákov. Tomáš Kúgel, a clarinettist and member of Domažlická dudácká muzika (DDM), wrote that the pitch was higher in these groups as compared to the norm (A = 442 Hz to A = 443 Hz) for other groups in Chodsko, explaining, “I think it is because Venca Kupilík [Václav Kupilík] has an old es [E-flat] klarinet [sic]. And when the clarinet is older his tuning is going up. . . . With DDM I think it is [A =] 443 [Hz].”³¹ Consequently, pitch variations, amid folklore musicians in Chodsko, appear to be linked to the pitch of each ensemble’s principal clarinettist.

Origin of Fine-Tuning Screws

The pukl is played using the closed fingering system, that is, only one finger is raised at a time for each note. There are no cross-fingerings or combination fingerings. When all the finger-holes are closed, there is

30. Zdeněk Bláha, *Sto kusů pro sólo a duo dudy [One Hundred Solos and Duets for Bagpipes]*, (Domažlice: Okresní kulturní středisko Domažlice, 1990), 6.

31. Tomáš Kúgel, personal correspondence, April 27, 2011.

TABLE 1. Pitch of *pukl* played in Chodsko (November 2010 to February 2011).

Name	Maker of <i>pukl</i>	Pitch of drone measured with electronic tuner	Location where player is normally involved playing
Kamil Jindřich	Jakub Konrady	439	Domažlice
Václav Dufek	Miroslav Janovec	440	Domažlice
Vlastimil Konrády	Jakub Konrady with chanter made by Lubomír Jungbauer	440	Domažlice (Instructor of the <i>pukl</i> at the music school in Domažlice)
Dan Dřímál	Lubomír Jungbauer	442	Mrákov
Jan Morysek	Miroslav Janovec	442	Klenčí (Student at music school in Domažlice)
Jiří Sauer	Jakub Konrady	442	Trhanov
Václav Buršík	Lubomír Jungbauer	443	Postřekov
Jan Hrbáček	Lubomír Jungbauer	443	Postřekov
Josef Kuneš	Stanislav Konrady	443	Domažlice (Instructor of the <i>pukl</i> at the music school in Domažlice)
Antonín Konrády	Jakub Konrady	443	Domažlice
Martina Morysková	Jakub Konrady	443	Domažlice
Richard Vísner	Jan Holoubek	443	Postřekov
Jiří Kupilík	Lubomír Jungbauer	445	Mrákov
Marek Budka	Lubomír Jungbauer	446	Mrákov
Vlastimil Dřímál	Jakub Konrady	447	Mrákov
Jan Holoubek	Jan Holoubek	447	Klenčí
Lubomír Pitter	Lubomír Jungbauer	448	Mrákov
Tomáš Budka	Karel Janeček	449	Not playing with any group, but his son Marek plays in Mrákov

still one open tone-hole near the bottom of the chanter which sounds an octave and a fifth above the drone. This provides the aural illusion of a secondary drone which is especially prevalent during staccato playing.

Today the *pukl* is unique among bagpipes in regard to how the pitch of individual notes can be tuned. Each finger and tone hole of the chanter is equipped with a brass machine screw—a fine-tuning screw—set

in a block near the tone holes. These are similar in appearance to a key block seen on historic clarinets, but placed close to the finger hole and drilled and taped in such a manner that allows the machine screw to breach the finger hole opening (fig. 9). This scheme offers the potential to change the volume of the hole and, consequentially, the resulting pitch. Making the finger hole “larger” raises the pitch of the note while making the finger hole “smaller” lowers it. Before the adaptation of tuning screws, it was customary in Chodsko to tune the individual notes of a chanter by changing the size of the opening of each tone-hole with wax. According to Jan Hrbáček, one of the last in Chodsko to learn on this type of pukl, this was accomplished not with pure beeswax but with a mixture of beeswax and rosin.³² In Chodsko, the practice of using beeswax-based substances for tuning ultimately ended ca.1989.³³ Often an adequate amount of these pure or compound substances was stored in the cleft of one of the ears of the symbolic goat’s head. Hrbáček joked that while taking lessons at the music school in Domažlice, tuning took about three quarters of the lesson time and in some instances, ironically, he “even had the opportunity to play.”³⁴

It has been expressed repeatedly by prominent players and pukl makers in Chodsko and elsewhere that Jakub Konrady was the person responsible for replacing the traditional way of tuning individual notes with wax with fine-tuning screws. His son, Jaromír Konrady, explained how the fine-tuning screws came to be:

Our father [Jakub Konrady] thought of the fine-tuning screw in the years 1958–1960. The possibility to quickly tune, instead of filling the holes with wax, was done for his nephew Antonín Konrád. They were recording bagpipe bands at the radio station in Plzeň.³⁵ Our father played violin. It is possible to tune with those [violins]. But with clarinets it was worse. And if the dudy [pukl] and clarinet are not in tune, it is a bad recording. And that is why our father did this type tuning, so that the bagpipes could be tuned in a short time. It is the last adaptation regarding the construction of bagpipes

32. Jan Hrbáček, personal interview, January 7, 2011.

33. Josef Kuneš, personal correspondence, April 20, 2011.

34. Jan Hrbáček, personal interview, January 7, 2011.

35. Music groups that use the pukl today are normally in the format *velká dudácká muzika* in Czech. These are ensembles that typically included two pukl, one E-flat soprano clarinet, one B-flat soprano clarinet, one or more violins, and a string bass. Other smaller ensembles with the pukl in other combinations of the aforementioned instruments were also recorded at the radio station for later broadcast and release on long playing hi-fi and stereo recordings.

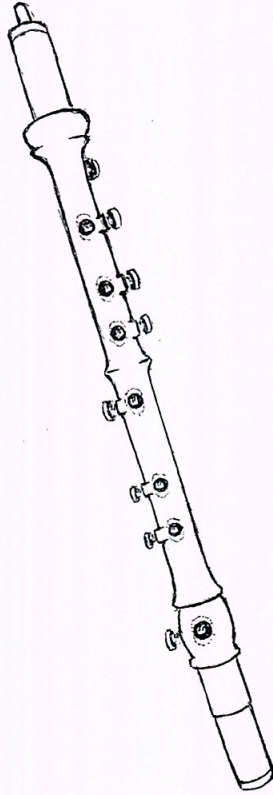


FIGURE 9. Illustration of a pukl chanter without the roztrub (sounding bell), showing fine-tuning screws on each of the finger-holes and tone-hole. Only the head of the uppermost screw is visible for the note c'' , which is typically fingered by the right thumb on the reverse side of the chanter. (Drawing courtesy of Terence Dobson.)

in the 5,000 years of playing the instrument. As bagpipers we are proud of it. Today we cannot even imagine how much work it was with tuning earlier. . . .³⁶

A similar account, repeatedly told in Chodsko, states that the initial use of fine-tuning screws came after Antonín Konrády returned from a folk instrument competition at the Llangollen International Musical

36. Jaromír Konrady, personal correspondence, April 29, 2011. "Dolad'ovací šroubky na předniče vymyslel náš otec v letech 1958–60. Možnost rychlého doladění, místo vyplňování dírký voskem, udělal poprvé pro svého synovce Antonína Konradyho. Byli

Eisteddfod in Wales in 1965. The son of Antonín Konrády, Vlastimil Konrády, does not himself recall a time before the use of fine-tuning screws, but that

my dad had a chanter without the screws. He tells how he was in Llangollen [Wales] without the screws. They were in a tent and it was very hot. The wax in the holes ran out because it was so hot. He had to tune the bagpipes again. They wrote the next day [in the newspaper] that he was praying, and this is the reason for winning the competition, the medal. [In fact,] he was tuning the holes. When he returned home he told his uncle [Jakub Konrady] about it. His uncle told him to bring the bagpipes to his workshop and he would think of something. He [Jakub] put the screws there. He thought up the idea of the fine-tuning screws. From this time bagpipes now have screws on each note including the [interval of the] fifth [with the drone]. . . .³⁷

Fine-tuning screws have proven to be a very effective way of changing pitch of individual notes of the chanter on the pukl. It is universally used in the Chod region today; a bagpipe maker would have little or no success selling an instrument in the Chodsko without this feature. Lubomír Pitter succinctly recounts the same story as outlined above in a documentary film about bagpipes in Bohemia, *Call of "Dudy"* (2006). However, evidence suggests that Jakub Konrady might not have been fully responsible for the addition of screws to the tone holes.

Vladimír Kovařík, a pukl maker in Prague, has a noteworthy collection of historic bagpipes including those played in Bohemia and elsewhere. Notable is a chanter with fine-tuning screws made by Vuk Šteffek in 1950. This is historically significant as it suggests that fine-tuning screws were already utilized eight to ten years before the habitually-acknowledged dates of this development attributed to Jakub Konrady. Kovařík wrote that Josef Bayer (1913–2008), a bagpiper from Prague, bought a pukl from [Vuk] Šteffek in 1950 with three interchangeable chanters. One of these chanters had tuning screws for each tone-hole, a second chanter

natáčet v rozhlasu v Plzni dudáckou muziku. Náš otec tehdy hrál housle. Ty se dají doladit. Ale s klarinetou to bylo horší. A pokud neladí dudy a klarinetu, tak je špatná nahrávka. Proto otec udělal doladění takové, aby bylo možné v krátké době rychle dudy přeladit. Je to poslední úprava na konstrukci dud za 5,000 let existence hraní na tento nástroj. Jako dudáci jsme na to hrdí. Dnes už si neumíme představit jaká práce s laděním dřívě byla."

37. Vlastimil Konrády, in discussion with the author in Domažlice, November 24, 2010.

was made from ebony and the third chanter was a usual one (that is, a “usual” chanter at this time was probably made of plum, the most common material used to make bagpipes in Bohemia). Kovařík bought this bagpipe and all three chanters from Josef Bayer in 1966. Since then, Kovařík has traded the pukl with the standard chanter for another instrument, but has retained the ebony chanter as well as the chanter with fine-tuning screws.³⁸ Lubomír Jungbauer, a respected maker, notes that Vladimír Baier (1932–2010), well-known musician and once director of the Muzeum Chodska in Domažlice, told him that Baier had suggested the idea of the fine-tuning screws to Jakub Konrady.³⁹ However, no date was offered with this testimony.

Obviously, these accounts of how the tuning screw became adapted to the pukl are not in harmony, but it appears that Vuk Šteffek sold at least one pukl with a chanter having fine-tuning screws eight to fifteen years prior to Jakub Konrady’s use of the tuning screws. It is possible that the idea of adapting the fine-tuning screw was developed by Vuk Šteffek and Jakub Konrady independently, while also conceivable that Jakub Konrady might have noticed its implementation on visits to Šteffek’s workshop, such visits being recalled by Jakub’s nephew, Antonín Konrády.⁴⁰ Regardless of who is responsible for the first application of fine-tuning screws, Jakub Konrady can be rightly credited for the successful implementation of a simple and reliable version that has been imitated by all succeeding makers.

Pukl Making in Chodsko

A primary contributor to the success of the pukl in Chodsko is the availability of instruments in the region. It appears that initially instruments were imported from Bavaria. As the Bock or pukl seem to have lost popularity in Bavaria, these unwanted instruments were given new life across the border in Chodsko and other regions in Bohemia. However, little verification exists for this other than the fact that the instruments played in the Oberpfalz region of Bavaria in the early nineteenth century appear to closely resemble those played in late

38. Vladimír Kovařík, personal correspondence, May 2, 2011.

39. Lubomír Jungbauer, personal correspondence, April 25, 2011.

40. Antonín Konrády, in discussion with the author in Domažlice, January 13, 2011.

nineteenth-century Chodsko. They are mirror images of each other, that is, the configuration of the bellows and reservoir bags were reversed. Furthermore, these extant examples that were played in Chodsko and are currently held in museums and private collections cannot be attributed to any maker in Bohemia. No clear picture of pukl making in Chodsko is found until the late nineteenth century, and little is known about the earliest makers of either pukl or dudy in Chodsko, which includes the names of “Nygł” from Pařezov, Jan Dekr Tůmák from Zahořany, and Josef Hojda from Domažlice.⁴¹ There is, however, a more complete record of succeeding pukl makers whose instruments were played in Chodsko, as seen below.

Wolfgang “Bolfík” Šteffek (1842–1923), commonly known as “Bolfík,” lived in the village of Újezd, famous for its association with the legendary folk hero, Jan Sladký Kozina. Rudolf Svačina writes, “All the bagpipers in Chodsko in the second half of the nineteenth century always had bagpipes from Šteffek. When a bagpipe was giving trouble or needed repair, they [bagpipers] were always guests [at the Šteffek home].”⁴² Šteffek not only made dudy and pukl, but also made and repaired clocks. His instruments were played in Chodsko, as well as in southern Bohemia and by professional pukl players and presenters of folklore in Prague. An innovator, Šteffek equipped some of the chanter with two or three keys. These “advancements” were never adopted into strategic performance practice. Nevertheless, the naissance of one innovation, the use of fine-tuning screws, is partially documented based on a pukl dated 1913, inv. E-3514 which is part of the Muzeum Chodska collection in Domažlice. Made by “Bolfík,” it has a chanter in which a screw has been incorporated to tune the lowest note of the chanter, b-flat. Later, this concept was expanded to all of the finger holes (c.f., “Origin of Fine-Tuning Screws” above).

Wolfgang “Vuk” Šteffek (1879–1966), son of “Bolfík,” carried on the tradition of making the pukl. A fair number of his instruments are extant, but few are played today. It is not unusual to find recycled parts from

41. Zdeněk Bláha, *Sto kusů pro sólo a duo dudy* [*One Hundred Solos and Duets for Bagpipes*], 2.

42. Svačina, *Dudáci a dudácká muzika na Chodsku* [*Bagpipers and bagpipe bands in Chodsko*], 33. “Vždy všichni chodští dudáci v druhé polovině 19. století měli dudy od Šteffka a byli jeho stálými a častými hosty, když pukl zlobil a potřeboval opravy.”

pukl made from one or more unidentifiable historic makers as well as components made by his father incorporated into his work.

Jakub Jahn (1902–1978) started making the pukl in the village of Dražnov, but moved to the neighboring village of Ždánov after the expulsion of the ethnic German population in that locale. Ornate wood burning of the upper bellows' plate, as well as embossing of the sheet brass used to make the bells can be observed on his instruments. Some of the most common decorative motifs include hearts and poppy flowers. Jahn can be observed making a pukl in one edition of the newsreel series, *Actualita* (1942), which depicts Jahn preparing and bending a cow horn over a Bunsen burner with a specifically designed tool—an iron ring that is welded to a handle. As the horn is softened by the heat, the ring is slid over the horn and bent to the desired shape. Jahn's work can be identified by this process, as marks are left from the iron ring where it had come in contact with the horn. His instruments are signed in various ways. Sometimes only his initials, "J.J.," can be found on one of the bells; otherwise, typically, his name, village and house number are burned onto the bellows.

Jakub Konrady (1905–1988) worked in Domažlice; his pukl production is considered to be of the highest standard. Early models show clear imitation of pukl made by Vuk Steffek but are more robust. Perhaps the most desirable of pukl made, these instruments nonetheless are not suitable for young players as the instruments are particularly heavy. There are four known designs or "generations" of heads used as chanter stocks. The examples of pukl made by Konrady show that he was a master of bending impressive bells out of long cow horns. He imported horns of the Hungarian Grey longhorned cattle (*magyar szürke szarvasmarha* or *magyar szürke marha*). Konrady is widely credited with developing and applying fine-tuning screws to each of the finger-holes of the chanter.

Karel Janeček (1901–1975) did not live in Chodsko but in Vejprnice, near Plzeň, but his instruments are played in Chodsko, and are often louder and have a more aggressive sound than those of other pukl makers. The chanter and drone bells are made with combination of arched brass tubing and cow horn. Some of these bells also have a portions made of sheet brass, which are embossed with six-pointed flowers akin to those found in the Flower of Life. Hearts and concentric circles are also

motifs that are found on pukl made by Janeček. On many examples, the “moustache” of the brass “hook and moustache” on the top plate of the bellows to which players strap their elbow are typically engraved “KAREL JANEČEK VEJPRNICE”.

Jaromír Konrady (1944) and Stanislav Konrady (1946) are two sons of Jakub Konrady who are making pukl that adhere to designs developed by their father, operating the same music store in Domažlice that once belonged to him. While part of the manufacturing process for their pukl takes place in their father’s historic workshop in Domažlice, some work is also done at workspaces near their respective homes in Plzeň and Stod. One of the most accomplished performers of the pukl, Josef Kuneš, regularly plays a pukl made by Stanislav Konrady.

Jan Frei (1938), once an auto mechanic, was motivated to make pukl when Jakub Konrady died. Working in Domažlice, Frei uses available materials, but typically makes chanter pipes from plum and the drone pipes from beech. He carves the decorative goats’ heads from linden and uses shellac as an exterior finish on wooden components. The upper plates of the bellows, made of birch plywood, are wood-burned and decorated with local symbols of Chodsko and/or of familiar structures in Domažlice. He has made pukl in the keys of E-flat, and G of which some have been exported to Sweden and Canada.

Lubomír Jungbauer (1950) is a well-known maker of the pukl living in the town of Stod, and has influenced pukl playing not only in Chodsko, but in centres like Strakonice. He was encouraged by Vojtěch Hrubý of Strakonice to make a player-friendly version of the pukl for younger players (i.e., lighter in weight and bellows easier to pump with increased bore size of the passage between the bellows and the air reservoir bag). He made his first pukl in 1981. Making pukl in the keys of D, E-flat, F, and G, he uses pear wood for the chanter pipes and maple for the balance of the turned components. Jungbauer has eliminated the *Bordunverkürzer* or *krátíček*, and was the first to replace the traditional leather flap that prevents air escaping from the bag with a plastic check valve. He also added a fine-tuning screw to the drone pipe.

Miroslav Janovec (1958), schooled in woodworking, is among the most popular makers of pukl in the Czech Republic and works in Malonice.

Even though prices for his instruments are considerably lower than other makers, he still produces a quality instrument. Janovec is not afraid to experiment with design or sound and is willing to incorporate customers' wishes. For those customers who want a louder pukl, Janovec makes a krátíč with a simplified internal design. This apparently allows the sound of the drone to be more robust than the traditional krátíč.⁴³

Jan Holoubek (1958), though not currently making instruments, received luthier training at the school of violin making in Luby (then Czechoslovakia). He made his versions of the pukl while he was living in the Chod village of Postrěkov and works now in Klenčí. His instruments are characterized by a minimalistic goat's head and are otherwise conservatively decorated. The quality of workmanship and materials is variable, but Richard Vísner, one of the best players in Chodsko, is very satisfied with his pukl made by Holoubek.⁴⁴

Conclusion

The pukl, commonly called dudy, is a type of Bock bagpipe that is played and closely associated with Chodsko. Although thought of as a Czech or Bohemian instrument, its current configuration is largely a result of historic developments that took place in Germany. Innovations, both visual and practical, were applied to both the peasant instrument—the großer Bock as illustrated by Praetorius—transforming it into the elaborate “baroque” polnischer Bock and the relatively subdued but still visually remarkable “classical” polnischer Bock of the mid-eighteenth century, which were played in ensembles called Bockmusik, at court. It was the “classical” polnischer Bock, with an angled drone pipe, bellows, and Bordunverkürzer or krátíč, which was introduced from Bavaria to the Chodsko region in the mid-nineteenth century. There it became known as the pukl and replaced the mouth-blown dudy by the end of the first quarter of the twentieth century. Since this time, the pukl has become associated with Chodsko, and makers in the region and western Bohemia have integrated further innovations to the pukl, including fine-tuning screws for the drone pipe and each of the finger-holes and tone-hole of the chanter.

43. Miroslav Janovec, personal correspondence, May 27, 2012.

44. Richard Vísner, personal interview, November 24, 2010.