

ROOTS OF RHYTHM - CHAPTER 12: THE SNARE DRUM FROM SWITZERLAND

Instrument:

Snare Drum, a double-headed, military drum

Country:

Switzerland

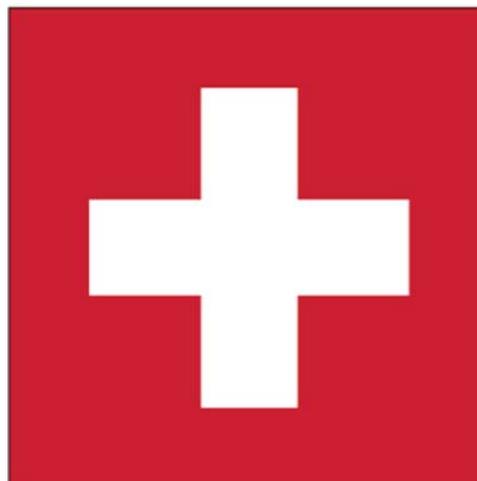


Flag:

The flag is a red square with a bold, equilateral white cross in the center that does not extend to the edges of the flag.

Size and Population:

The country has an area of 15,943 square miles with 523 square miles of inland lakes and rivers. Switzerland is landlocked and has a border of 1159 miles. It is slightly less than twice the size of New Jersey. As of July 2013 the population of Switzerland is estimated at 7,996,020; ranked 95th in the world.



Geography and Climate:

Located in central Europe, Switzerland borders Austria, France, Italy, Liechtenstein, and Germany. Over half of the country is covered by two mountain ranges, the Swiss Alps in south and the Jura Mountains in northwest. The beautiful Swiss Alps cover about 60 percent of the country but only one fifth of the population lives there. The highest elevation in the country is in the Alps on Monte Rosa at 15,203 feet. Four fifths of the population lives in between these two ranges in the central region called the Swiss Plateau. The area contains rolling hills, plains, and large lakes that were left when ancient glaciers moved through the area. This plateau has most of Switzerland's industries, rich farmlands, its largest city, Zurich, and the Swiss capital of Bern. Switzerland is landlocked and forms a crossroads for northern and southern Europe.

The climate is temperate, but varies widely according to altitudes in the country. The winters are cold, cloudy with rain and snow in the upper elevations, and summers that range from cool to warm, with clouds, high humidity, and occasional showers. Sometimes fog covers the Swiss Plateau like a cloud for up to 120 days a year but in the summer the area is warm and sunny.

Background and History:

The region of Switzerland today was occupied by Celtic people called the Helvetians in the centuries before the birth of Christ. In 58 B.C. Julius Caesar's armies conquered the area making it a Roman Province called Helvetia. By A.D. 400, Germanic tribes called Alemannians and Burgundians settled in the area, and by 500 the Germanic Franks had conquered these tribes, later expanding under the powerful rule of Charlemagne until around 800. By 962, most of this land became part of the Holy Roman Empire.

In 1291, three central Swiss states (now called cantons), Schwyz, Uri and Unterwalden joined in a defense agreement called the Perpetual Covenant, which became the beginning of the Swiss Confederation. This was a pact to help each other stay free of foreign rule, in light of the growing power of the Hapsburg family of Austria that controlled this area at that time. Switzerland later took its name from the canton of Schwyz.

From 1315 to 1388, Switzerland fought many wars for independence and finally defeated the Hapsburgs whose armies were ten times their strength. By the 1470s, Switzerland had a strong military and won new land and their independence from Hapsburg rule. During this period of expansion the Swiss Confederation added many new cantons; 13 by 1513. At this time, each canton governed itself without a central government. When the French defeated the Swiss two years later, the Swiss questioned the policy of territorial expansion and eventually adopted the stand of neutrality in times of war—a policy that has lasted to the present day.

During the 1500s, the Reformation in Switzerland spread quickly. The advance of the Protestant religious movement, however, split Switzerland into Protestant and Roman Catholic factions, and the two fought many times between 1529 and 1721. After the French Revolution brought military occupation to Switzerland in 1798, a new central government was established. This new system caused considerable confusion and in 1803 the cantons were reestablished by Napoleon of France. He created six new cantons, and reduced the central government's power. With Napoleon's defeat in 1815, the Congress of Vienna guaranteed Swiss neutrality for the whole of Europe.

By 1830, many of the Swiss demanded more freedom. Some cantons joined together to stop this movement but were defeated in a brief civil war in 1847. The next year Switzerland adopted a constitution that established federal democratic rule over the confederation. In 1863, the Red Cross was established, and later became the International Committee for the Red Cross. The flag of the Red Cross was adopted from that of Switzerland but the colors were reversed.

At the beginning of hostilities in World War I, Switzerland declared its neutrality which was respected by all nations. At the beginning of World War II, the Swiss again declared its neutrality and German forces did not invade. Over 100,000 refugees were given care by the Swiss during the war and it represented the U.S. and other Allies in Axis countries' negotiations.

In 1960, Switzerland helped form an economic organization of European countries called the European Free Trade Association. Three years later, Switzerland joined the Council of Europe,

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which promotes unity among its members in human rights and social progress. In 1979, Switzerland created its 23rd canton called Jura. It was created to give French-speaking Roman Catholics their own canton, existing next to a canton with German-speaking Protestants. Switzerland continues to be a prosperous and stable economy with low unemployment and a highly skilled labor force supporting the country's world-famous watch, banking and chocolate industries. In 2013, the President of the Swiss Confederation is Ueli Maurer.

Culture:

The Swiss are proud of their 700-year tradition of maintaining independence from foreign rule. While there is no standing army, all men receive military training each year, keeping their weapons, uniforms and musical instruments at home, and can be called up in an emergency. Since the country is located in the center of Europe, it reflects a mixture of European peoples. These include 65 percent Germans, 18 percent French, 10 percent Italian, and 1 percent Romansch, people who speak a language related to Latin and live in the western valleys. People of other cultural backgrounds make up 6 percent of the population. Religions also reflect those in Europe with Roman Catholic at 46 percent, and Protestant at 40 percent. Other religions combine at 5 percent, and 9 percent do not declare a religion.

All national laws are published in the three official languages German, French and Italian. The four official national languages are German spoken by 63.7 percent, French by 20.4 percent, Italian by 6.5 percent, Romansch by 0.5 percent, and other languages by 8.9 percent. The name of the original Celtic area, Helvetia, is the Latin name for Switzerland. Each language dominates the part of the country to which it is closest.

Swiss children are required by law in each canton to go to school but each region has its own age limits. Typically children from ages 6 to 14 must attend school and they study in the language of their region. If students choose to go on to college they need to attend one of three specialized high schools where they can choose between studies in Greek and Latin, modern languages, or math and science. Other students serve an apprenticeship in a trade or technical school. The University of Basel, founded in 1460, is the oldest Swiss university. Students do not pay tuition at any of the public universities.

Sports and the arts are important in Switzerland. Mountain sports are the most common with about one third of the nation being skiers. Other sports include bobsledding, climbing and hiking. Target practice is stressed by the military and as a result competitions have become very popular. Since the 1800s tourists have visited the country on vacation and today over 11 million visitors come each year. The arts in Switzerland include literature, visual arts, and music. One of the many famous Swiss books is a children's classic, *Swiss Family Robinson* by Johann Wyss family. The art movement known as Dadaism began in Zurich in 1916, and Swiss artists of the 19th century include painter Paul Klee, sculptor Alberto Giacometti and architect Le Corbusier. The Orchestra de la Suisse Romande, conducted by Ernest Ansermet is world famous. Folk music includes dancing in colorful costumes, singing, yodeling and playing the Alphorn.

Over a period of 200 years, as the country sought independence from Austria, the military grew stronger. With these social and political changes, musical instruments associated with the

military including the fife, the bugle and the drum also gained in importance. The subject of this chapter is one such drum, the snare drum.

Music: Instruments and Rhythms

Instruments: Swiss musical instruments in the wind family include the fife, the Alphorn, a Neolithic wooden trumpet, the trumpet, trombone, reed and pipe organs, clarinets, saxophones, the bagpipes, the accordion, recorders, and the shawm (a medieval oboe). Stringed instruments include the hammer dulcimer, hurdy-gurdy (a mechanical violin), cittern (16th century guitar), violin and string bass. Percussion instruments include Swiss music boxes (a plucked idiophone), the cymbals, bass drum, timpani, and the snare drum.

The snare drum's history begins in Medieval Europe around 1300 with a small, simple two-headed drum with a single strand snare called the *tabor*. The tabor (tay-bur) usually played an accompaniment to the three-hole flute. The idea of a round snared frame drum played for social events may have come from instruments like the North African *bendīr* (ben-dear) through 8th century Muslim conquests in Spain and France. The use of a snare drum in the military, however, probably came directly from the snared *davul* and *naqqāra*, a Turkish snared bass drum and snared kettledrum set, respectively. These instruments were used in Janissary bands of the powerful Ottoman Empire's armies. The Ottomans reached Vienna, Austria in 1529, likely influencing the Swiss drum makers and drummers.

In the 1400s, the early tabor increased in size and along with the flute was adopted by the Swiss military in fife and drum corps for giving signals. By this time, the European snare drum had migrated to many countries around the world. Similar drums were in use in England by the 1500s, although the name tabor was replaced with "drome" or "drume." Its larger size required the performer to carry the drum over his shoulder and it became known as a "side drum." This longer side drum was called a "field drum" and its drumheads were tightened by pulling a rope tension system—like lacing a shoe.

In the 1600s, new tension methods were developed that allowed the snares on field drums to be tightened with screws, changing the rattle of the snare's gut cord to more of a "snap." Around 1837, screws also began to replace rope tensioning, enabling an increase in the tension on the drumheads and enabling drummers to play faster and more complex rhythms. By the 1850s, snare drums were being made of brass and reduced back to a tabor size for a brighter sound for their new use in the symphony orchestra. After 1900, the snare drum's popularity continued to grow with drum and bugle corps that were privately sponsored outside of the military.

In the early 1900s, additional metal parts were developed to tighten the drumheads including the counter-hoops. Coiled wire came into use for the snares. Now, as the central drum in a set of drums, cymbals, and percussion instruments called "traps," drummers used it in a variety of musical applications, including silent movies, ragtime and jazz. Later, with the advent of rock and roll, many different sizes and types of snare drums were mass-produced and decorated with special finishes. Since the 1950s, the instrument has received enormous technological attention, including an expanded selection of plastic drumheads, improved drumsticks, and heavy duty accessories.

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The first use of the snare drum in a classical orchestra was in 1706 by Marais, but many composers followed including Frederick Handel, Ludwig Van Beethoven, and Maurice Ravel. Rolf Liebermann's *Geigy Festival Concerto* in 1958 features the snare drum in the Basel style. The snare drum has thus developed from a local Swiss instrument to an international tradition.

Today, the snare drum consists of eight major parts.

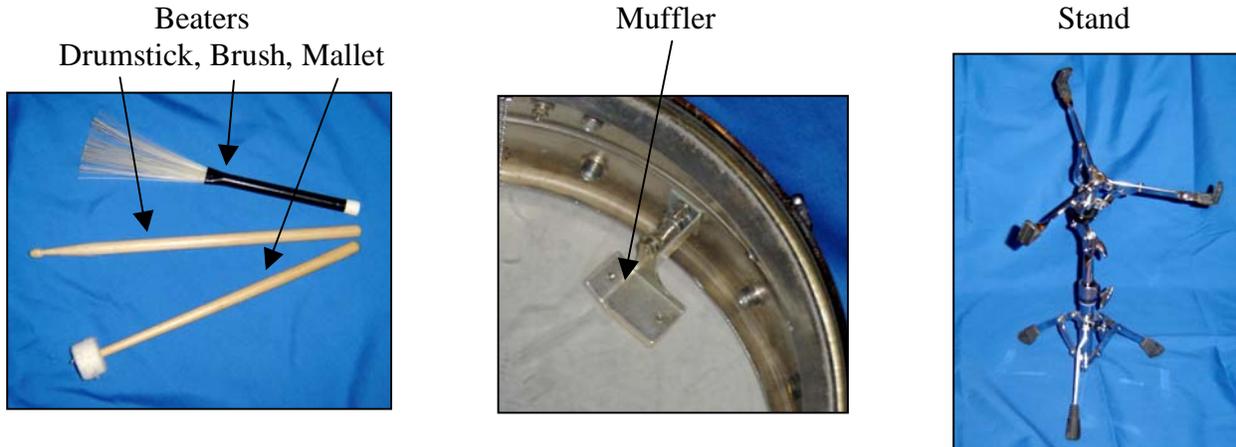
1. The body or shell is traditionally made of laminated wood in a cylinder or barrel shape.
2. There are two drumheads of calfskin or plastic; the top or batter head is thicker than the bottom, or snare head, where the snares are stretched. The drumheads are wrapped around or tucked into wooden or metal hoops, called flesh hoops.
3. The drumheads are tightened with a drumhead tension system consisting of rope or screws (also called tension rods) attached to counter-hoops so that they can increase the tightness of the head by pulling down against its flesh-hoops. On modern drums the tension screws thread into lug nuts that are fastened to the shell.
4. The drum has multiple strands of snares, that create a snapping or buzzing effect. The snares, originally twisted catgut cords, are now usually coiled wire, cable, nylon cords or other variations, stretched underneath the top drumhead and/or below the bottom drumhead.
5. Originally the snares consisted of a single strand stretched across the batter head with no adjustable tension system. Today the snare tension system is an adjustable mechanical strainer that stretches the snares usually across the bottom drumhead. Relaxing the strainer releases the snares from the drumhead for an un-snared or tom-tom effect.



6. The snare drum today is played with a variety of beaters. The drumsticks are usually made of hickory, maple or oak, and consist of a bead or small oval at the beater end, a neck and shoulder, or gradual taper to the main shaft, and the butt end, or non-beaded end. Other beaters include brushes, felt-tipped mallets, and wrapped dowels.

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7. The top drumhead often has a muffling system that dampens or muffles the sound of the drumhead. This can be a simple pad fixed to the head, or a mechanical, spring-loaded device.
8. The stand for the snare drum that was originally a thin cord or strap is now a heavy-duty floor stand, a shoulder strap, or a metal or molded fiberglass body harness.



Rhythms: The snare drum rudiments are rhythms and techniques that enable a drummer to perform a wide variety of patterns, somewhat like scales are performed on melodic instruments. The invention of the rudiments likely came from the Swiss as early as 1525 according to renowned Basel drummer, Dr. Fritz Berger. The Swiss mercenary regiments also record the first uses of fife and drum in 1332. Fifers and drummers had to play in unison and this required standardization of the rhythms. Drum notation started in Switzerland around 1620 and by 1660, the French had adapted these rudiments and sped them up to fit their faster marching pace. Later in Scotland and England the rudiments were adapted to fit the local styles. In the 16th and 17th centuries, the new American military followed the practices of the British which were mainly the fife and drum corps. During 18th and 19th centuries, military drum routines were issued in manuals in Europe and the U.S. The drummer gave calls to the troops, for example, using early rudiments called taps and drags, the rhythms could signal for the infantry, "to arms," as follows:

"To arms" - in six counts

1	2	3	4	5	6	1	2	3	4	5	6
tap	drag	tap	tap			tap	drag	tap	tap		
R	LL	R	L			R	LL	R	L		
Very loud						Soft					

The first rudiment was the "long roll"; two right hand hits followed by two left hand hits in continuing succession. To gain speed and create a sustained sound, drummers had to learn to control the rebound of their sticks instead of merely using a wrist stroke for every tap on the drum. By gradually speeding up and slowing down, called "open, closed, open," the double-stroke roll, like all rudiments, was used by drummers to develop technical facility. Many rudiments were onomatopoeic as are the words "drum," "flam," "ruff," and "paradiddle."

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The first listing of rudiments in America was in 1812 in a book intended for the United States Army and Navy. In 1886, the book *Trumpet and Drum* by John Phillip Sousa was written to introduce the drum and bugle corps as a guide for all military service drummers and contained all of the drum rudiments practiced at that time. Lacking uniformity in a variety of published works, however, the rudiments were standardized by the newly formed National Association of Rudimental Drummers (N.A.R.D.) in 1932.

Today, the rudiments continue to be the rhythmic way to build technique for all styles of drumming, including popular music like jazz and rock and roll. Over the years, drum and bugle corps that began in the early 1900s have developed complicated rhythms and marching routines, based on the military drumming tradition.

Listen & Play Along:

Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction Section, and a specific activity for making snare drum is described below) or encourage them to improvise - using everyday items such as buckets, containers, phonebooks, desktops, etc., as instruments. Rhythms can also be created with body percussion including handclapping, foot tapping, finger snapping, etc.

Listen to Tracks 15-17 of the Roots of Rhythm: Extensions Companion CD to hear the sound of the snare drum. Now it's time to play the snare drum. You can also use other percussion instruments to play along with music on the Roots of Rhythm: Extensions Companion CD. Or, if you don't have these instruments, make your own substitutes (see activity below for making your own snare drum).

Listen to Tracks 18-29 of the Roots of Rhythm: Extensions Companion CD and play along with the rhythms. To begin, just try to have fun! Now read the box notation in the Resources section that shows each of the various rhythms and begin again with the count and drum sounds or rudiments. You could begin by saying the rhythm along with the CD then playing the rudiments.

Making Your Own Snare Drum: Make your own snare drum with a coffee can, PVC tape, two rubber bands and two pencils. Follow the instructions for making a tape drumhead in the Introduction. Wrap several rubber bands around the can for snares.



Traditional vs. Matched Grip:

The original snare or side drum as carried in the military was held at an angle and required the so-called "traditional" grip with the left stick held underhand and the right stick held overhand. Around 50 years ago, new harnesses for marching drums, advanced drum stands and new drumming styles allowed drummers to use the so-called "matched grip," where both hands use the overhand position.

Using traditional grip

Craig Woodson

Using matched grip



Field snare drum



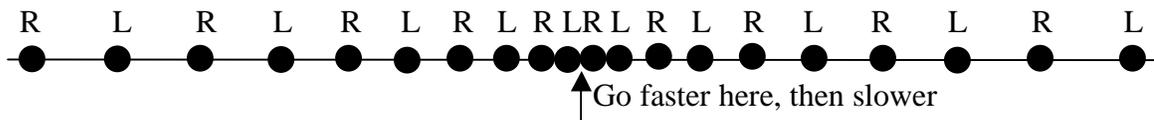
Concert snare drum

Resources: Snare Drum Rhythms and Rudiments

Snare Drum Rhythms: Beginning Rolls and Strokes

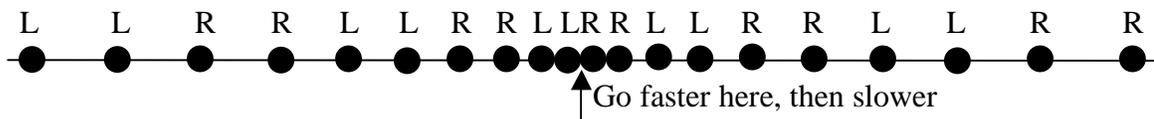
1. Single stroke roll

Slow to fast to slow



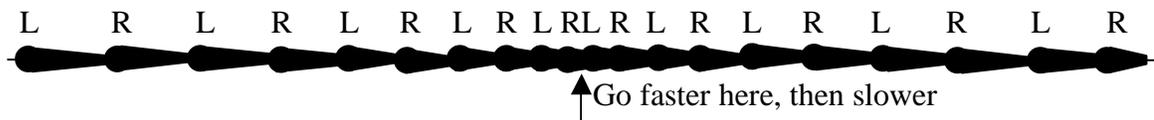
2. Double stroke roll

Slow to fast to slow



3. Buzz roll (multiple bounces per hand motion)

Slow to fast to slow



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4. Single paradiddle

Count
Say

1	2	3	4	5	6	7	8
par - a - di - dle				par - a - di - dle			
R	L	R	R	L	R	L	L

5. Flam – four counts

Count
Say

1	2	3	4
flam		flam	
IR		rL	

6. Drag – in six counts

Count
Say

1	2	3	4	5	6
drag			drag		
IR			rL		

Snare Drum Rhythms: Swiss Rudiments

7. Tap Flam – in four counts

Count
Say

1	2	3	4
tap flam		tap flam	
R	IR	L	rL

8. Pataflafla – in eight counts

Count
Say

1	2	3	4	5	6	7	8
pa - ta - fla - fla							
	R	L	IR	rL			

9. Swiss Army Triplets – in six counts

Count
Say

1	2	3	4	5	6
flam tap tap		flam tap tap			
IR	L	R	rL	R	L

10. Dragadiddle

Count
Say

1	2	3	4	5	6	7	8
drag - a - di - dle				drag - a - di - dle			
RR	L	R	R	LL	R	L	L

Snare Drum Rhythms: Cadences

11. Cadence – in four counts

Count 1 2 3 4 1 2 3 4
 Say flam tap tap flam tap tap

IR	L	R		IR	L	R	
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Say flam tap tap-a tap-a tap tap tap

IR	L	RL	RL	R	L	R	
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12. Cadence – in six counts

Count 1 2 3 4 5 6 1 2 3 4 5 6
 Say drag tap tap drag tap tap

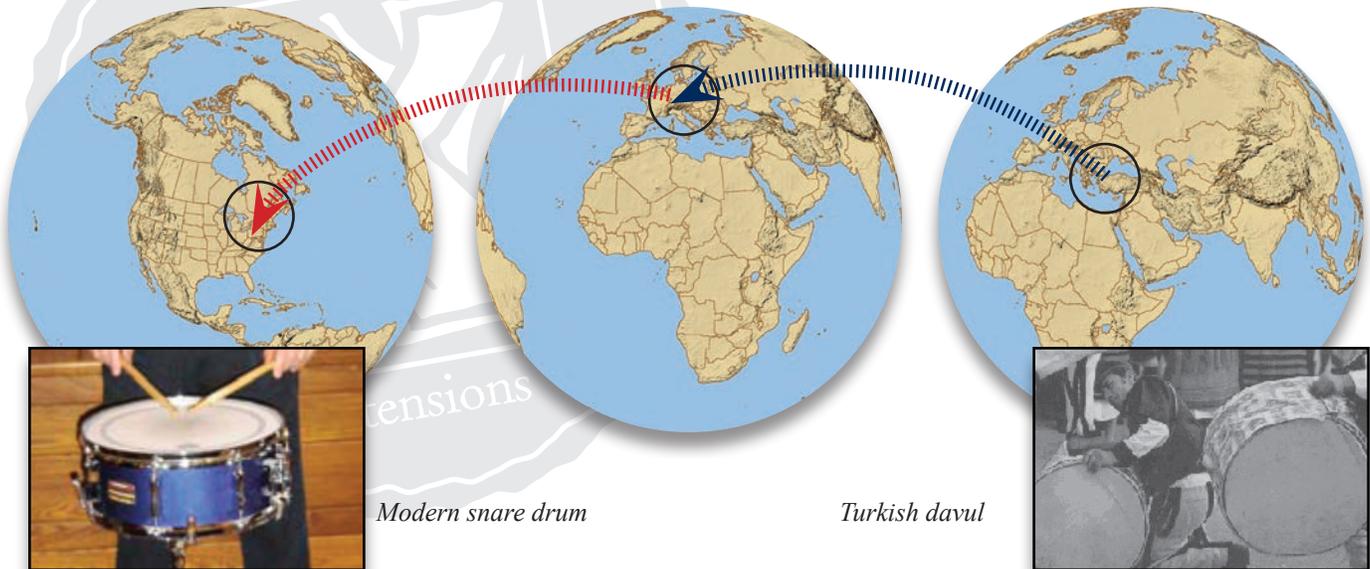
IIR		L	R			IIR		L	R		
-----	--	---	---	--	--	-----	--	---	---	--	--

drag tap tap tap tap tap tap tap tap

IIR	L	R	L	R	L	R		L	R		
-----	---	---	---	---	---	---	--	---	---	--	--

Extensions:

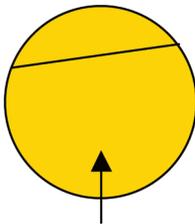
Although the idea of a round, snared frame drum played for social events may have come from instruments like the *bendır* through 8th century Muslim conquests of Spain and France, the modern snare drum primarily developed from two drums in the Ottoman Janissary bands, the snared drum set, the *naqqāra*, and the snared bass drum, the *davul*. These Turkish instruments became the models for the contrasting low field drum and high sounding snare drum sounds that evolved in Swiss military music and eventually found their way into many types of music throughout Europe and America.



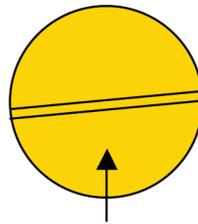
The modern snare drum's predecessor, the tabor, was a small, double-headed drum with a one-strand snare that dates back to the 1300s. The tabor, combined with the influence of the Turkish naqqāra and davul in the 1500s, led to the development of the early snare drums that appeared in Switzerland and quickly spread throughout Europe and later North America.

Single or double gut snares or a thin stick used on Turkish percussion modified the sound by adding a high pitched buzz, allowing the sound to carry farther on the battlefield. Over time, the number of snares on a snare drum increased. Today, these snares can be made from coiled wire, cable and gut and may sometimes even extend beyond the drum shell to further increase their contact with the drumhead.

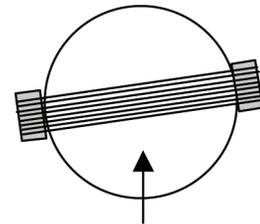
Changes in snare placement raised the drum's pitch and increased its projection.



*Snares on the Turkish davul and naqqāra are off-center
Large/slow vibrations*



*Snares on the Medieval tabor are centered
Medium vibrations*



*Snares on the modern snare drum can extend beyond the shell
Small/fast vibrations*

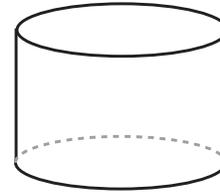
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When the early snares were set off center, a larger area of the drumhead could vibrate which created vibrations that were slower and lower in pitch. When snares were moved to the middle of the drum, the head had faster vibrations and produced a higher pitched sound. The snares on many drums today can even be individually adjusted and, with tighter drumheads, the vibrations are very fast and high pitched. This allows the modern drums used in concert, field and pop music to project their sound above the other instruments.

Changes in snare drum design focused and shortened its sound.



The naqqāra's single-head and kettledrum design
Long sustain and deep tone



The snare drum's double-headed cylindrical shell
Short decay and high tone

Early in their history, snare drums were standardized in the round, cylindrical, double-headed configuration. This was likely due to the influence of other Turkish, Arabian or North African drums. The new design gave the drums a much more focused, higher-pitched sound that was probably preferred on the battlefields of Europe.

Musical Influences			
	Naqqāra and Davul/Turkey		Snare Drum/Switzerland
	Root	Influence	Extension
Design	kettle/cylinder	snares	cylinder
Rhythms	troop signals/rudiments		
Construction	clay and metal one drumhead		wood and metal two drumheads
Technique	mallets		drumsticks
Application	military		military/social

In addition to its direct influence by Turkish drums such as the *naqqāra* and *davul*, the snare drum also represents indirect extensions of many instruments, including *Roots of Rhythm* instruments such as the *kakko* of Japan and the *djembe* from Guinea as well as many types of cylindrical and frame drums from Europe, Africa, the Middle East and North and South America. This is due in large part to similarities in one or more of several Extension categories.

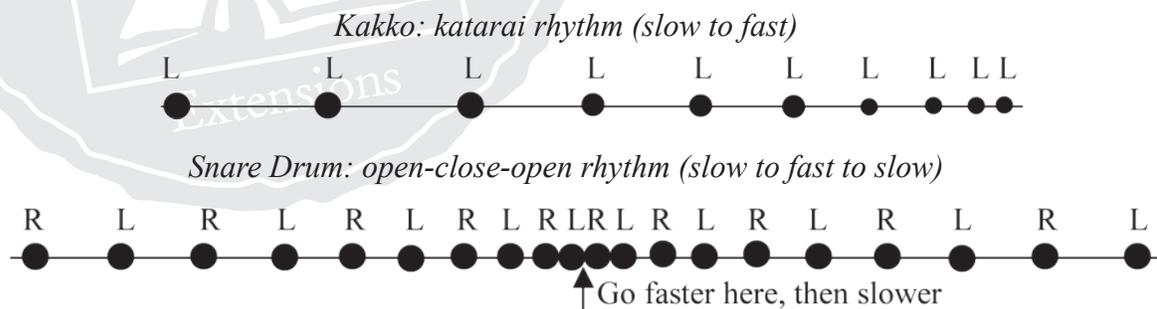
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• Design/Construction Materials and Methods

Single-headed cylindrical drums, such as frame drums and tambourines, have an opening that allows lower or slower vibrations of the head. When a cylindrical drum has drumheads of the same tension and thickness at each end, the two heads “couple” or work together to help sustain the vibration. The *kakko* as well as western-style drums like the bass drum and tom-tom are examples of this effect. If the two heads are different thicknesses or pitches, as they are in the case the snare drum, this will uncouple the drumheads; resulting in the higher pitched, shorter sound that is characteristic of the snare drum.

• Playing Techniques

Like the Japanese *kakko*, the snare drum is struck with two beaded drumsticks. While snare drum sticks have evolved into a wide variety of shapes, sizes, weights and styles, *kakko* beaters, on the other hand, have remained the same over the centuries. The *kakko* makes use of the *mororai*, or buzz roll, and a fast left-right stroke on the *shōko* gong which is called a “flam” on the snare drum. The *katarai* (bouncing ball) or gradually accelerating rhythm of *kakko* performance is similar to the practice of the open-close-open (slow-fast-slow) rudimental snare drum style, although in the snare drum’s case this technique is primarily used to build dexterity and control of the instrument and not necessarily for performance.



• Quality or Type of Sound

The snare drum’s sound modifier, or snares, create a “rattle” effect that might be considered an extension of other *Roots of Rhythm* instruments, for example, the *djembé*’s metal buzzer plates, the beans or beads inside the *adufe* and the Lakota Drum’s buzz technique. This quality of modified sound often represents the spirit or soul of the drum, particularly those of African origin.

• Musical Style or Application

As a signal drum, the snare drum can also be considered an extension of the *djembé*. While the snare drum and *djembé* share few similarities in areas such as design, playing techniques and sound, they do traditionally perform similar functions; that of giving rhythmic signals. The *djembé* is used to signal other musicians and dancers in close proximity whereas the snare drummer signals troops over a wide area.

In addition, both the snare drum and *djembé* are used in ensembles where different types and sizes of drums cover the high, middle and low ends of the tonal spectrum. This approach is used in many cultures, including the Cuban and Brazilian percussion ensembles. The snare drum extends this idea by being the main drum in the contemporary drumset, also called a drumkit. The modern drumset is a set of high, medium and low pitched drums and cymbals that is played by one person using both hands and feet.

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Djembé: "Come to perform" signal

1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
R		<u>L</u>	<u>R</u>		<u>L</u>		<u>R</u>	<u>L</u>		<u>R</u>	<u>L</u>	<u>R</u>			
High		Low sound													

Snare Drum: "To arms" signal

1	2	3	4	5	6	1	2	3	4	5	6
R	LL	R	L			R	LL	R	L		
Very loud						Soft					



As direct extensions of the *nagqāra and davul*, the snare drum has specific connections to the instruments of the Middle East and Europe. Similarities to percussion instruments such as the *djembé, kakko* and other drums offer additional examples of how drumming is common to many world cultures. These extensions show that the snare drum has both directly and indirectly incorporated many technologies and techniques that have existed for centuries on drums and percussion in many other parts of the world.