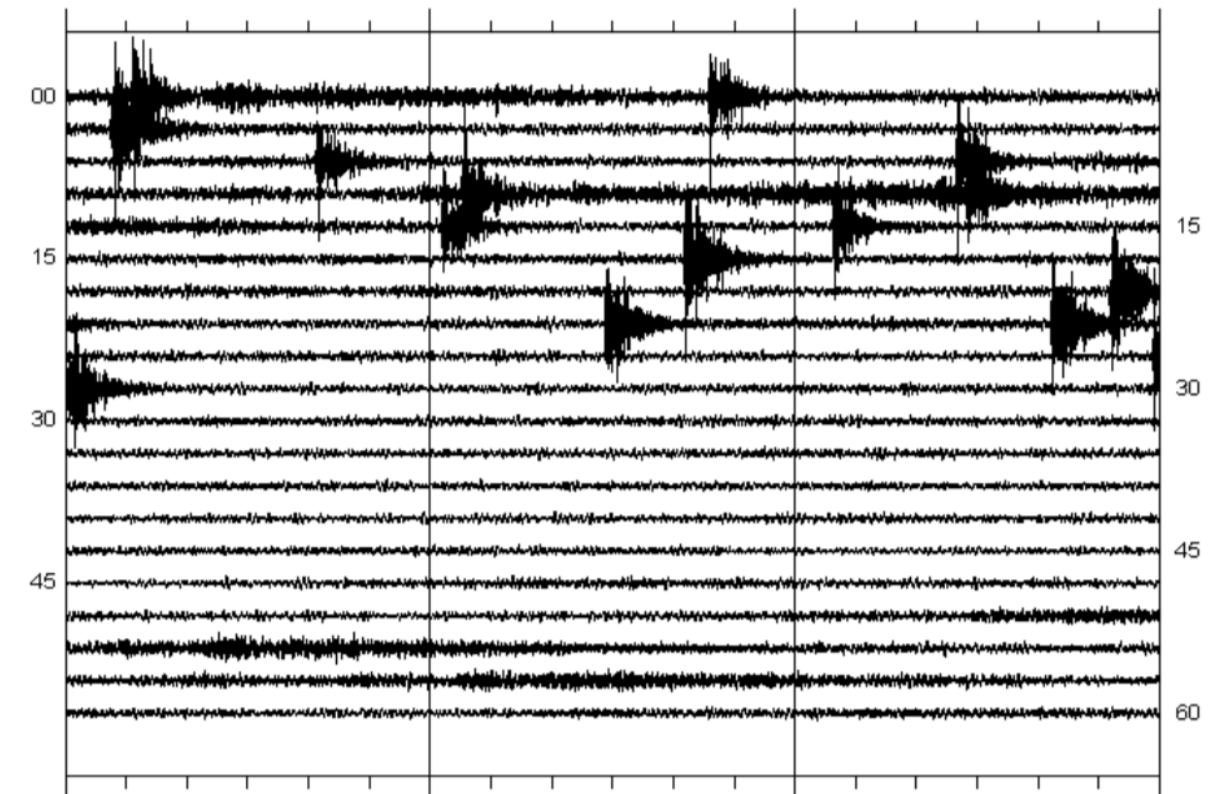


# Enjambre Sísmico

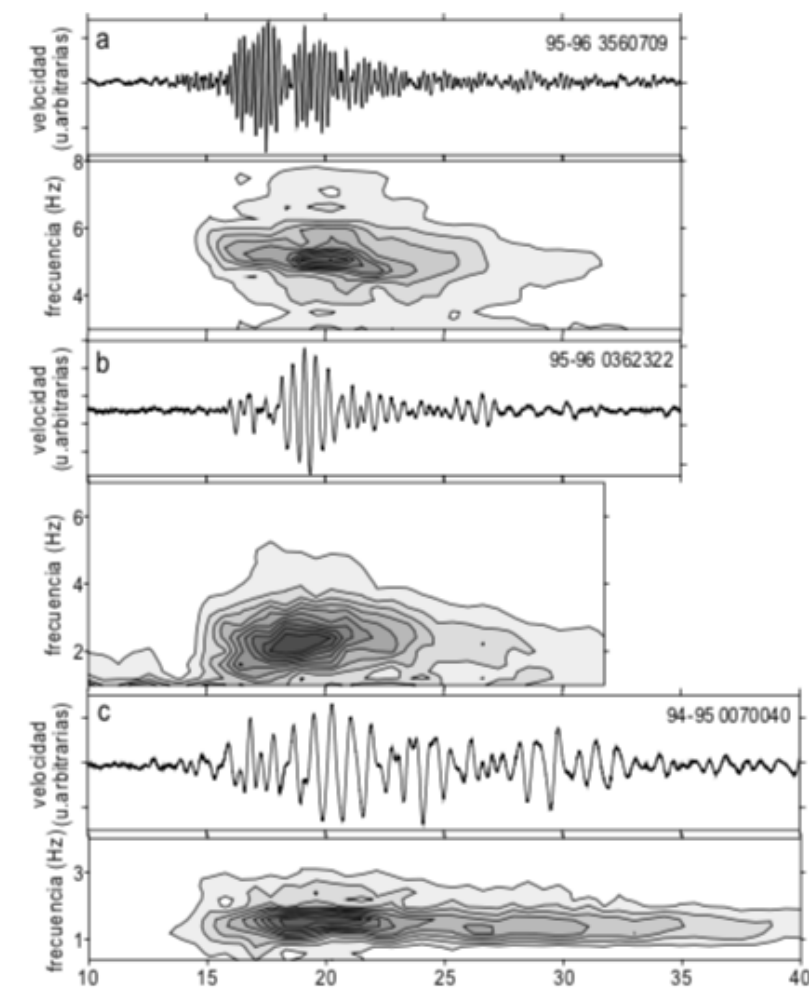
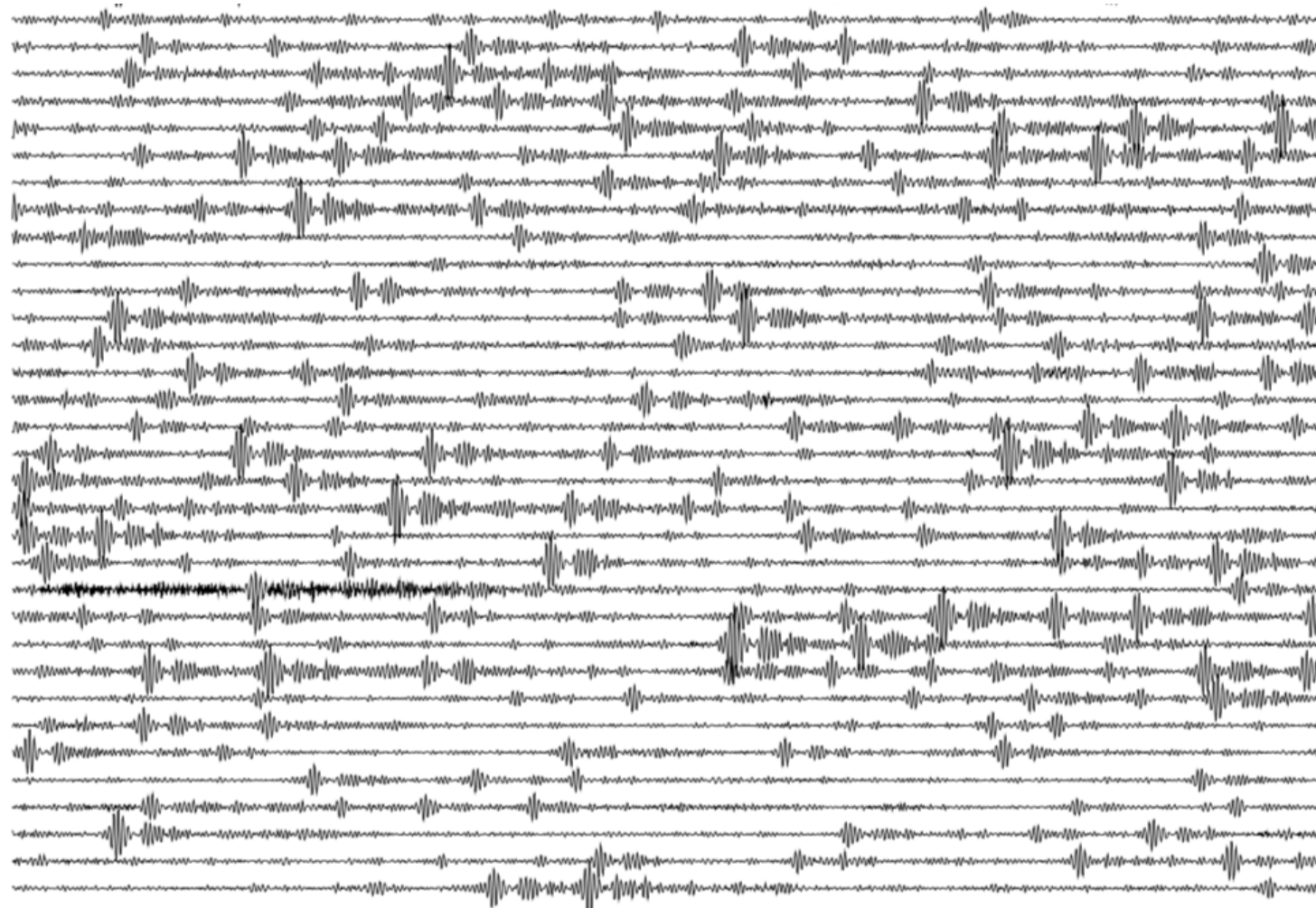
Michel Soto 2019

Para flauta, clarinete, oboe y didgeridoo.

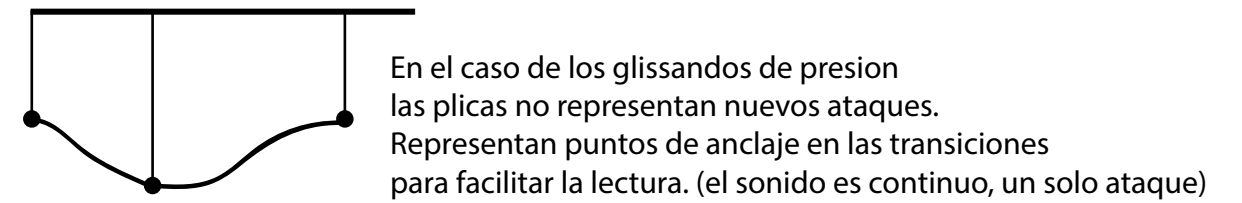
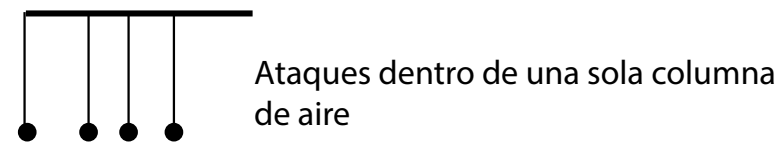
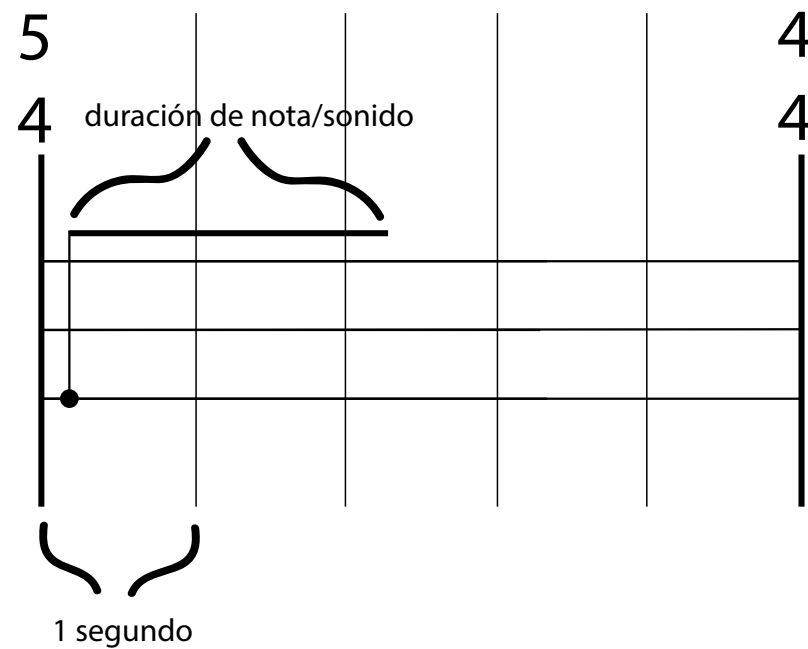


“Enjambre sísmico” es una pieza que fue compuesta basandose en comportamientos propios de la sismicidad volcánica. El nombre de la pieza es la inspiración básica de la textura general y el desarrollo de la misma. Un enjambre sísmico es la ocurrencia de un conjunto de eventos sísmicos en un área específica durante un periodo de tiempo relativamente corto. De esta manera cada una de las secciones de la obra esta construida a partir de un comportamiento sísmico volcánico propio de los eventos de enjambre. Así la pieza se divide en 8 secciones: Explosión, Enjambre, Tremor volcánico, Evento L.F., Estructura caldérica, Tremor armónico, Nube volcánica y Evento tornillo.

Por otro lado, las cualidades tímbricas de la pieza estan construidas a partir del registro de ondas de baja frecuencia en los sismógrafos y especialmente en el fenomeno de “tremor”. Por esto se eligió explorar arduamente la activación de los instrumentos a partir del soplo “alla trompa” o de trompetilla directamente sobre los tubos de los instrumentos obteniendo así ondas complejas con frecuencia relativamente baja y con alto contenido espectral.

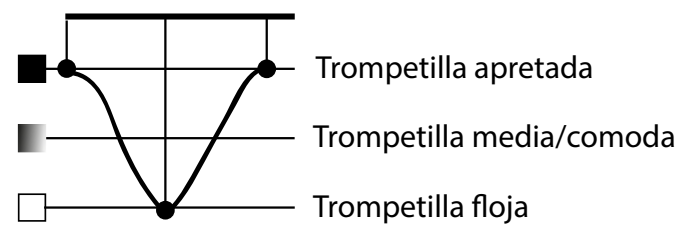


# Indicaciones



La notación funciona de manera espacial. Los tiempos se dividen en columnas de 1 segundo. Los ritmos escritos no son exactos, mas bien se trata de realizar los gestos en el tiempo.

A excepción de cuando se usa boquilla o caña todas las activaciones son directamente sobre el tubo (completo o en secciones) del instrumento. Siempre utilizando la técnica "alla trompa" o trompetilla.



Indica nivel de presión en la trompetilla, desde la máxima relajación en los labios hasta la máxima presión (sin perder en ambos extremos el sonido de trompetilla, este se rompe al tener un sonido de puro aire). Las líneas de glissando indican transiciones entre un nivel y otro.

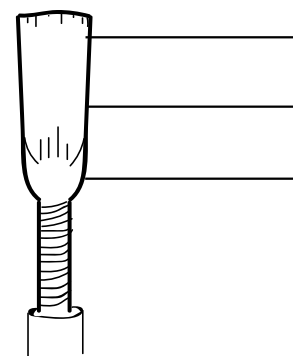
Presión de aire:

● Máxima

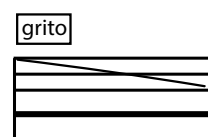
◐ Media

○ Baja

~ Transición

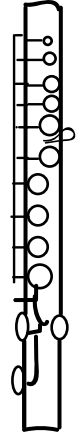


Indica en que sección de la boquilla/caña se deben colocar los labios y las transiciones entre las mismas.



La técnica de grito consiste en gritar dentro del tubo del instrumento mientras se sopla en el simultaneamente. Las 3 líneas indican en el registro y las transiciones del grito. (Utilizar todo el registro)

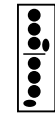
# Flauta



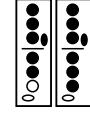
Sin tudel, alla trompa sobre el tubo.



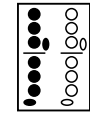
Solo el tudel, alla trompa directamente en el agujero del tudel.



Digitación.

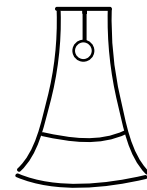


Tremolo entre 2 digitaciones.

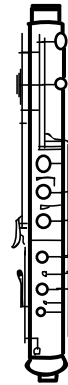


Cambiar la digitación: de tubo cerrado al tubo abierto con sus puntos intermedios. Ir digitando para abrir y cerrar tubo siguiendo el dibujo de transición.

# Oboe



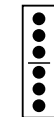
Solo la campana, alla trompa.



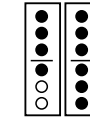
Sin campana, sin caña.  
Soplar directamente sobre el tubo pero colocando al revez. Es decir, soplar en el tubo/corcho donde iría la campana  
Las digitaciones en este caso se presentan invertidas.



Solo la caña.



Digitación.

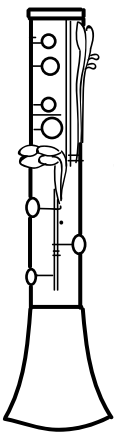


Tremolo entre 2 digitaciones.

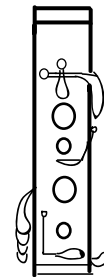


Llave de la campana, accionar directamente con la mano mientras se sostiene la campana con la otra.

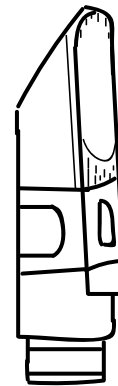
# Clarinete



Tubo inferior y campana, alla trompa sobre el tubo.



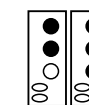
Solo tubo superior, alla trompa sobre el tubo.



Solo la boquilla/caña.

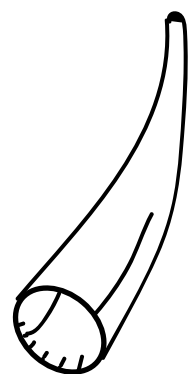


Digitación.

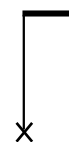


Tremolo entre 2 digitaciones.

# Didgeridoo



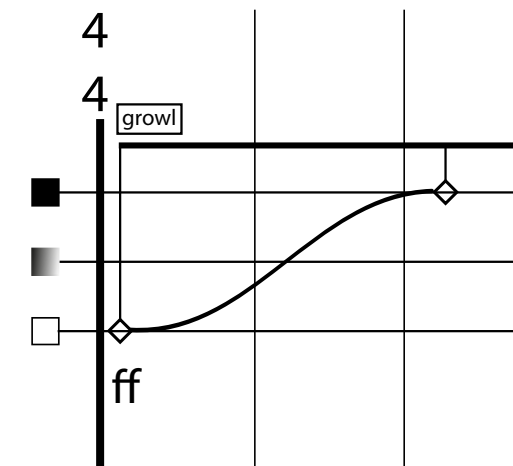
Alla trompa sobre el tubo.



Slap tongue.  
Golpe percutido con la lengua, dentro del tubo (usandolo como resonador)

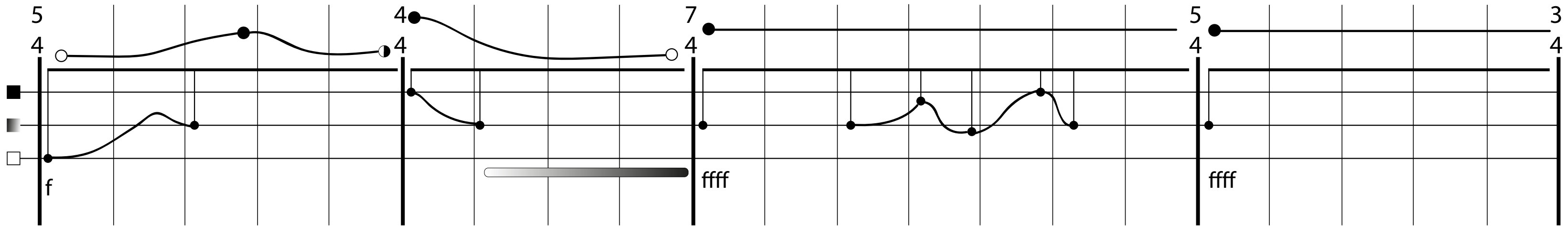
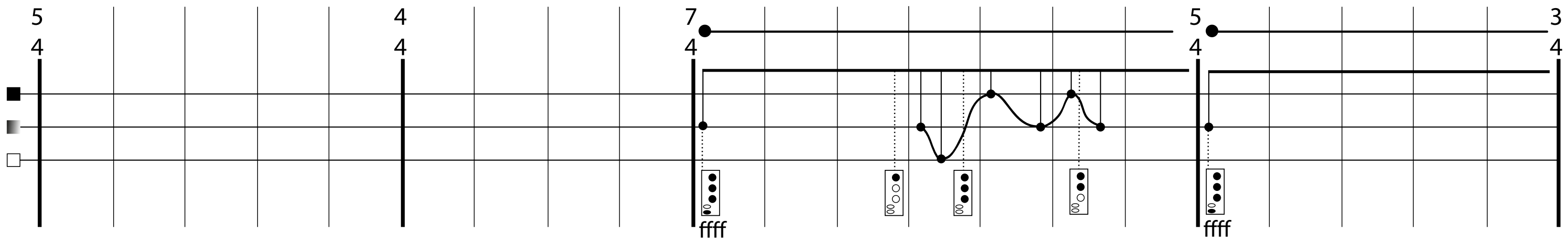
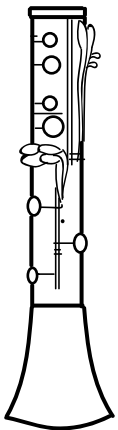
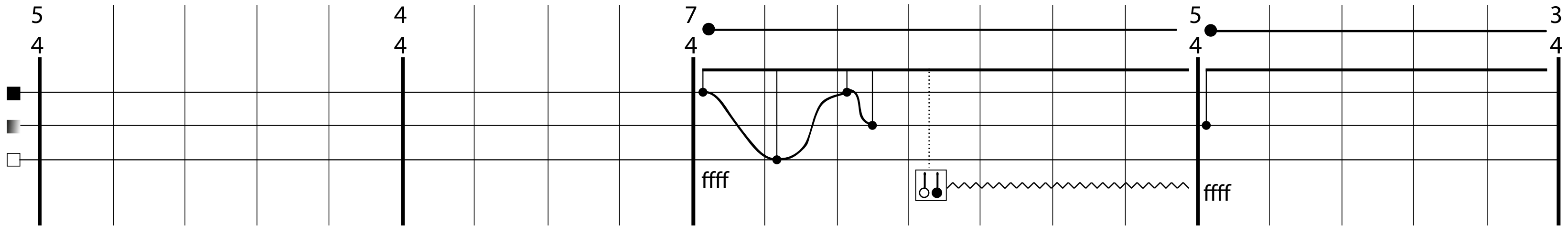
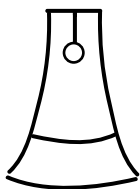
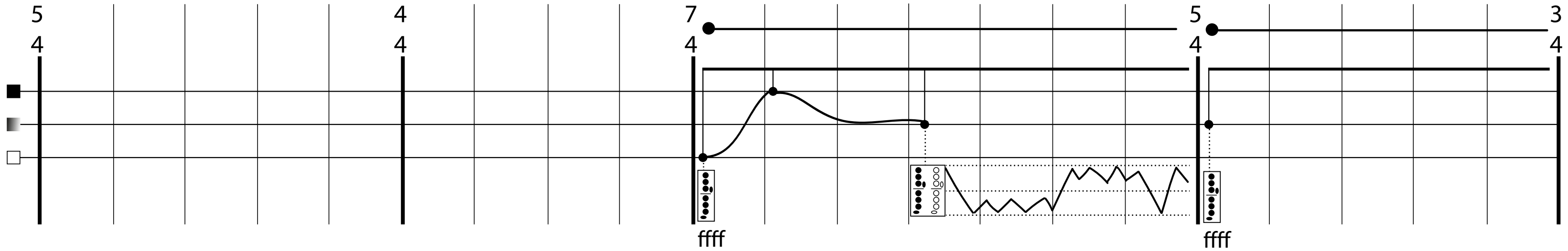
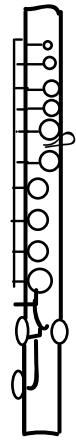


Transición: Sonido limpio sonido sucio.  
Sonido sucio: aflojar el labio superior para si obtener un sonido distorsionado al ser filtrado por la posición del labio. Esto es independiente a la presión de aire y a la presión de la trompetilla.  
Blanco:sonido limpio  
Negro: sonido sucio.

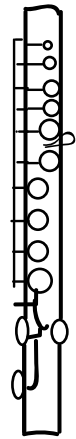


Growl: sonido gutural y grave. Este se emite hacia dentro (inhalando aire). El tubo sigue alla trompa en los labios. Este se usa como resonador y como filtro del sonido emitido. En este caso se mantiene una trompetilla estable y las líneas indican registro y sus transiciones. Agudo, medio y grave. Usar todo el registro.

\*Explosión



\*Enjambre



3 6  
4 4

ffff

Detailed description: This block shows the first staff of music for a flute. It consists of two systems of staves. The top system has a treble clef and a key signature of one flat. The first system covers measures 3 and 6, with a dynamic marking of 'ffff' at the beginning. The second system covers measures 4 and 4. The bottom system has a bass clef and a key signature of one flat. It features a descending curve from measure 3 to 6, with a 'ffff' dynamic marking at the start.

7 7  
4 4

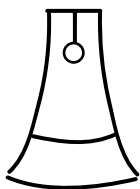
mf

Detailed description: This block shows the second staff of music for a flute. It consists of two systems of staves. The top system covers measures 7 and 7, with a dynamic marking of 'mf'. The bottom system features a jagged, sawtooth-like waveform across the measures, with a 'mf' dynamic marking at the start.

5 7  
4 4

mf

Detailed description: This block shows the third staff of music for a flute. It consists of two systems of staves. The top system covers measures 5 and 7, with a dynamic marking of 'mf'. The bottom system features a jagged, sawtooth-like waveform across the measures, with a 'mf' dynamic marking at the start.



3 6  
4 4

ffff

Detailed description: This block shows the first staff of music for a clarinet. It consists of two systems of staves. The top system has a treble clef and a key signature of one flat. The first system covers measures 3 and 6, with a dynamic marking of 'ffff'. The bottom system has a bass clef and a key signature of one flat. It features a descending curve from measure 3 to 6, with a 'ffff' dynamic marking at the start.



7 7  
4 4

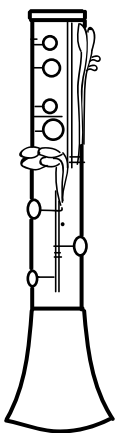
mf

Detailed description: This block shows the second staff of music for a saxophone. It consists of two systems of staves. The top system covers measures 7 and 7, with a dynamic marking of 'mf'. The bottom system features a jagged, sawtooth-like waveform across the measures, with a 'mf' dynamic marking at the start.

5 7  
4 4

mf

Detailed description: This block shows the third staff of music for a saxophone. It consists of two systems of staves. The top system covers measures 5 and 7, with a dynamic marking of 'mf'. The bottom system features a jagged, sawtooth-like waveform across the measures, with a 'mf' dynamic marking at the start.



3 6  
4 4

ffff

Detailed description: This block shows the first staff of music for a trumpet. It consists of two systems of staves. The top system has a treble clef and a key signature of one flat. The first system covers measures 3 and 6, with a dynamic marking of 'ffff'. The bottom system has a bass clef and a key signature of one flat. It features a descending curve from measure 3 to 6, with a 'ffff' dynamic marking at the start.

7 5 7  
4 4 4

mf

Detailed description: This block shows the second and third staves of music for a trumpet. The second staff covers measures 7 and 5, and the third staff covers measures 4 and 7. Both staves have a dynamic marking of 'mf'. The bottom system features a jagged, sawtooth-like waveform across the measures.



3 6  
4 4

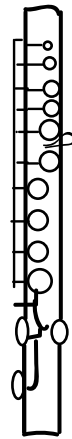
ffff

Detailed description: This block shows the first staff of music for a trombone. It consists of two systems of staves. The top system has a treble clef and a key signature of one flat. The first system covers measures 3 and 6, with a dynamic marking of 'ffff'. The bottom system has a bass clef and a key signature of one flat. It features a descending curve from measure 3 to 6, with a 'ffff' dynamic marking at the start.

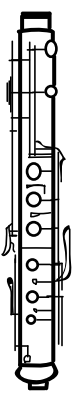
5 7  
4 4

mf

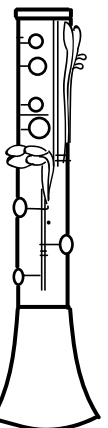
Detailed description: This block shows the second staff of music for a trombone. It consists of two systems of staves. The top system covers measures 5 and 7, with a dynamic marking of 'mf'. The bottom system features a jagged, sawtooth-like waveform across the measures, with a 'mf' dynamic marking at the start.



Flute score system 1. The staff shows a melodic line starting on G7, moving to F4, then G4, and ending on G4. The second staff shows a dynamic curve starting at fff, peaking, and then dipping. The third staff shows fingerings for the first two notes. The fourth staff shows a wavy line representing breath control. The system concludes with a bar line and a final G4 note.



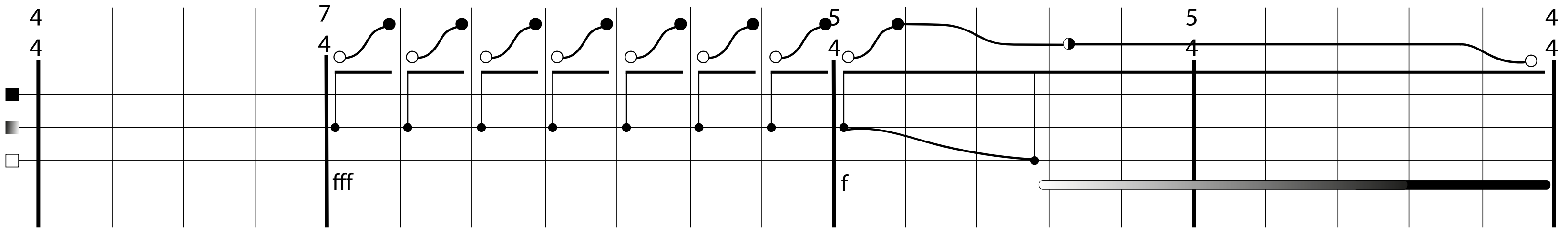
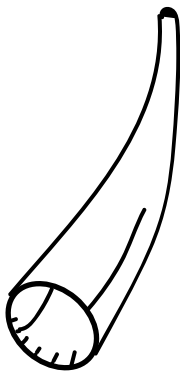
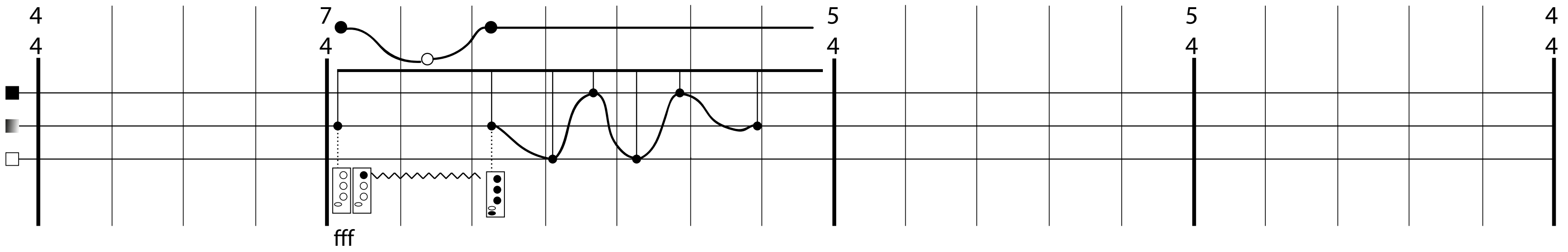
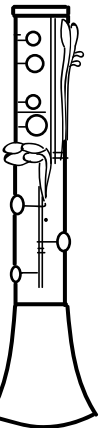
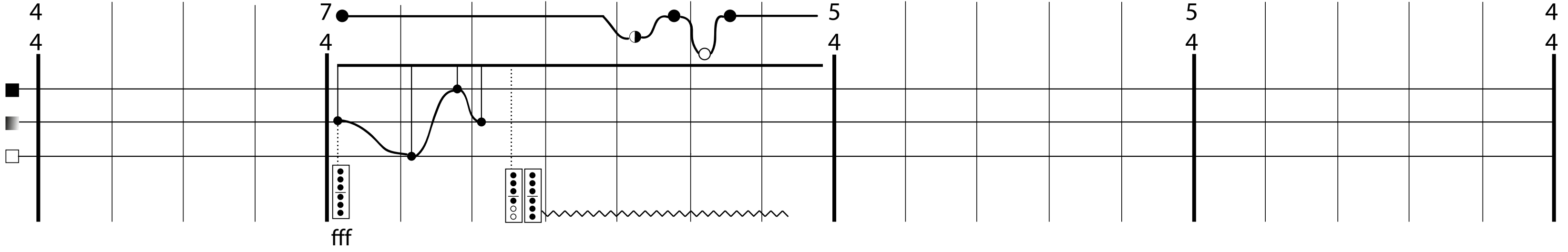
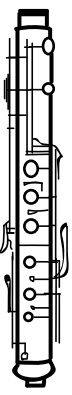
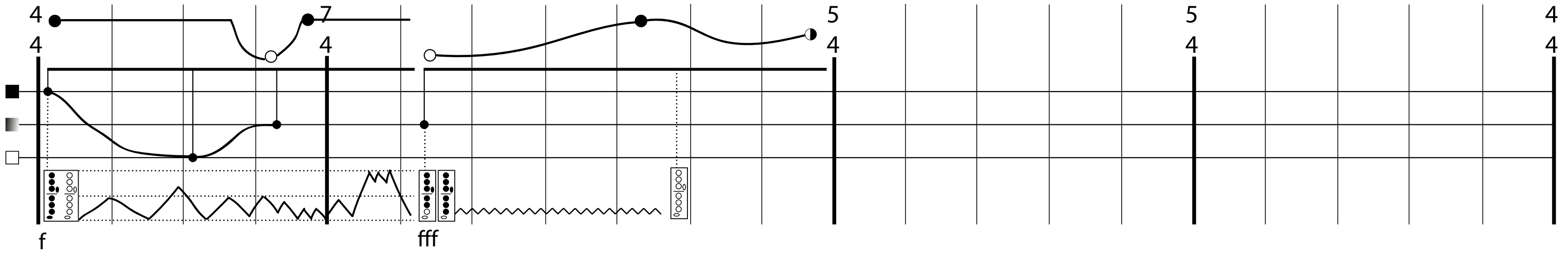
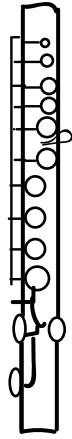
Clarinet score system 1. The staff shows a melodic line starting on G4, moving to G7, then F4, and ending on G4. The second staff shows a dynamic curve starting at fff, peaking, and then dipping. The third staff shows fingerings for the first two notes. The fourth staff shows a wavy line representing breath control. The system concludes with a bar line and a final G4 note.



Saxophone score system 1. The staff shows a melodic line starting on G7, moving to F4, then G4, and ending on G4. The second staff shows a dynamic curve starting at fff, peaking, and then dipping. The third staff shows fingerings for the first two notes. The fourth staff shows a wavy line representing breath control. The system concludes with a bar line and a final G4 note.

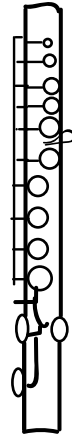


Trumpet score system 1. The staff shows a melodic line starting on G7, moving to F4, then G4, and ending on G4. The second staff shows a dynamic curve starting at fff, peaking, and then dipping. The third staff shows fingerings for the first two notes. The fourth staff shows a wavy line representing breath control. The system concludes with a bar line and a final G4 note.





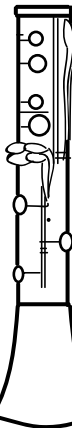
\*Tremor volcánico



Musical score for Flute, measures 1-6. The score is written on a grand staff with two staves. The first staff (treble clef) has notes on lines 4 and 5. The second staff (bass clef) has notes on lines 4 and 5. The notes are connected by curved lines, indicating tremolos. The first measure starts with a forte (f) dynamic and a 'fff' marking. The second measure has a dotted line leading to a box containing five dots. The third measure has a box with five dots. The fourth measure has a box with five dots. The fifth measure has a box with five dots. The sixth measure has a box with five dots. The dynamic 'fff' is present at the beginning of the first measure.



Musical score for Clarinet, measures 1-6. The score is written on a grand staff with two staves. The first staff (treble clef) has notes on lines 4 and 5. The second staff (bass clef) has notes on lines 4 and 5. The notes are connected by curved lines, indicating tremolos. The first measure starts with a forte (f) dynamic and a 'fff' marking. The second measure has a dotted line leading to a box containing five dots. The third measure has a box with five dots. The fourth measure has a box with five dots. The fifth measure has a box with five dots. The sixth measure has a box with five dots. The dynamic 'fff' is present at the beginning of the first measure.

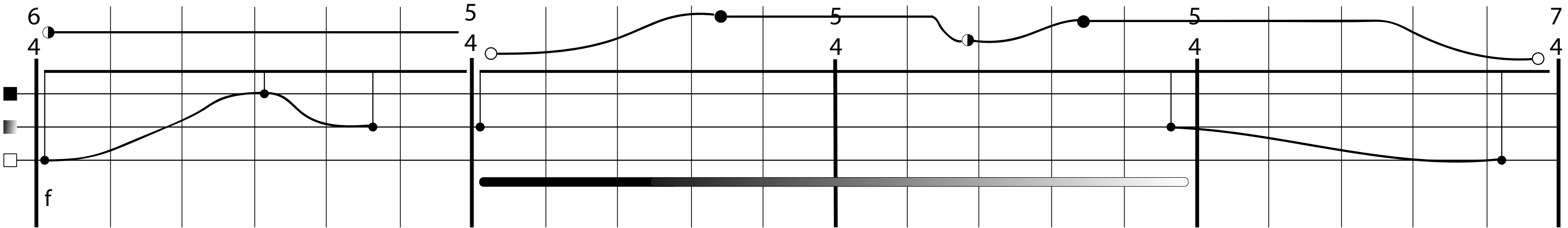
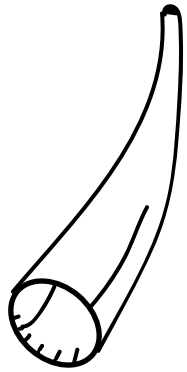
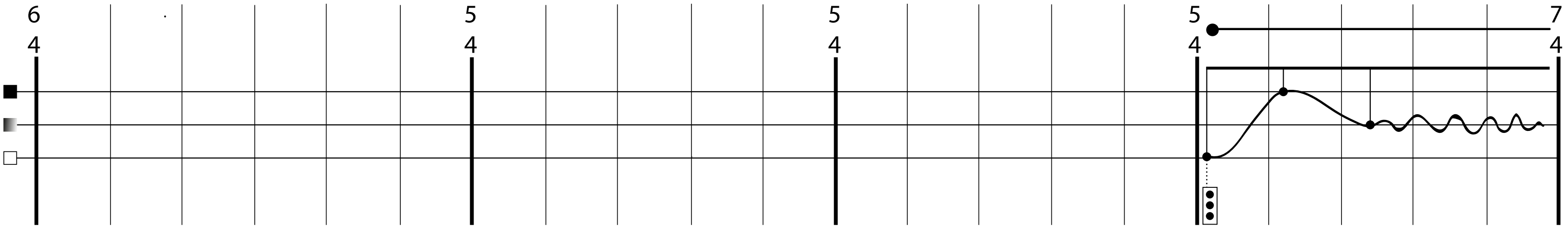
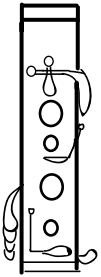
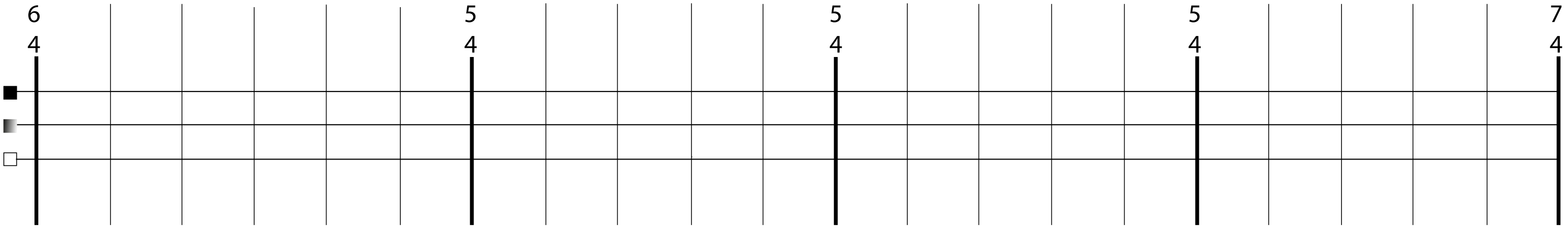
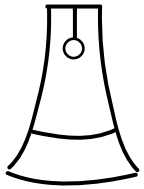
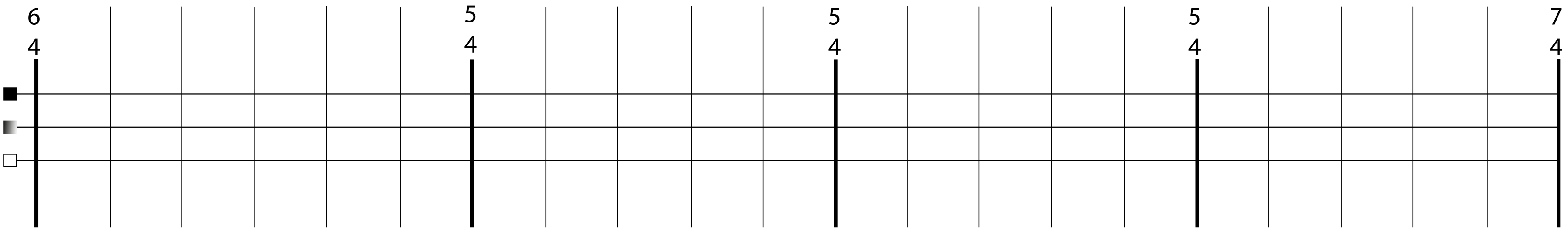
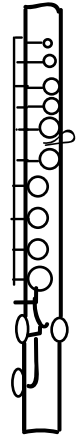


Musical score for Saxophone, measures 1-6. The score is written on a grand staff with two staves. The first staff (treble clef) has notes on lines 4 and 5. The second staff (bass clef) has notes on lines 4 and 5. The notes are connected by curved lines, indicating tremolos. The first measure starts with a forte (f) dynamic and a 'fff' marking. The second measure has a dotted line leading to a box containing five dots. The third measure has a box with five dots. The fourth measure has a box with five dots. The fifth measure has a box with five dots. The sixth measure has a box with five dots. The dynamic 'fff' is present at the beginning of the first measure.

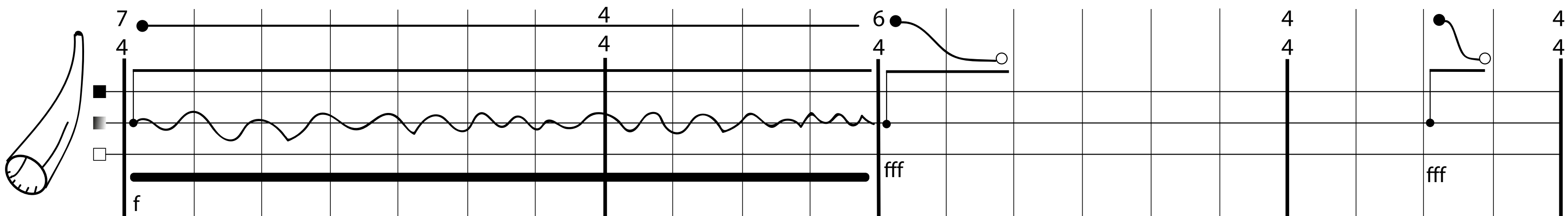
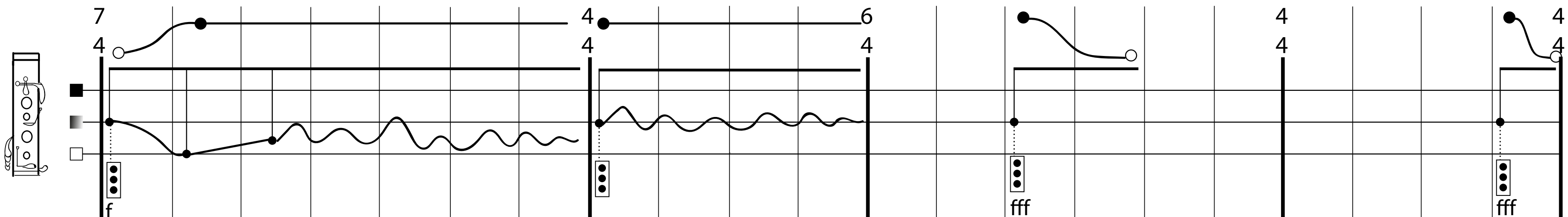
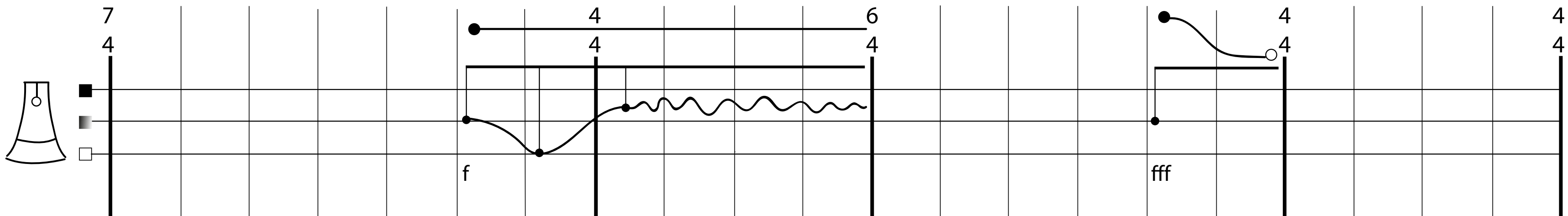
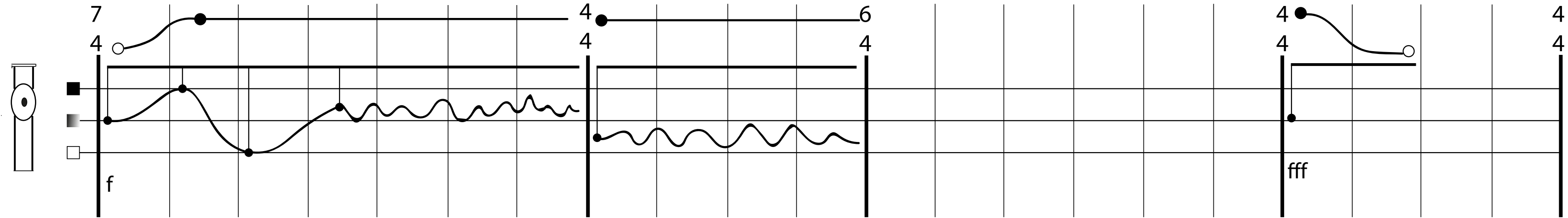


Musical score for Trumpet, measures 1-6. The score is written on a grand staff with two staves. The first staff (treble clef) has notes on lines 4 and 5. The second staff (bass clef) has notes on lines 4 and 5. The notes are connected by curved lines, indicating tremolos. The first measure starts with a forte (f) dynamic and a 'fff' marking. The second measure has a dotted line leading to a box containing five dots. The third measure has a box with five dots. The fourth measure has a box with five dots. The fifth measure has a box with five dots. The sixth measure has a box with five dots. The dynamic 'fff' is present at the beginning of the first measure.

\*Evento L.F.

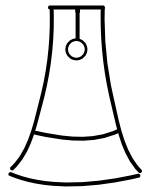


\*Estructura caldérica

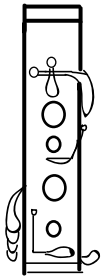




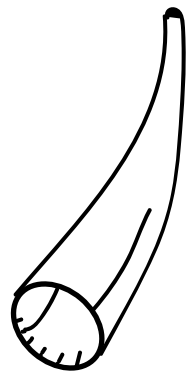
Clarinet musical notation on a three-staff system. The top staff shows fingerings: 4, 4, 3, 4, 4, 6, 4, 4, 5, 4. The middle staff shows dynamics: fff, fff, fff. The bottom staff shows a vertical line at the beginning and end of the piece.



Trumpet musical notation on a three-staff system. The top staff shows fingerings: 4, 4, 3, 4, 6, 4, 4, 5, 4. The middle staff shows dynamics: fff, fff, fff. The bottom staff shows a vertical line at the beginning and end of the piece.

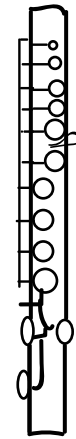


Saxophone musical notation on a three-staff system. The top staff shows fingerings: 4, 4, 3, 4, 4, 6, 4, 4, 5, 4. The middle staff shows dynamics: fff, fff. The bottom staff shows a vertical line at the beginning and end of the piece, with a dotted line and three dots in the middle.



Trombone musical notation on a three-staff system. The top staff shows fingerings: 4, 4, 3, 4, 4, 6, 4, 4, 5, 4. The middle staff shows dynamics: fff, fff, fff. The bottom staff shows a vertical line at the beginning and end of the piece.

\*Tremor armónico

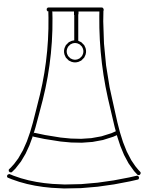


5 5 7  
4 4 4

ffff

4 5  
4 4

ffff

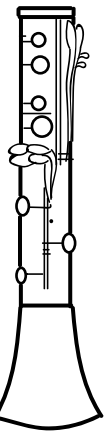


5 5 7  
4 4 4

ffff

5 4 5  
4 4 4

ffff



5 5 7  
4 4 4

ffff

5 4 5  
4 4 4

ffff



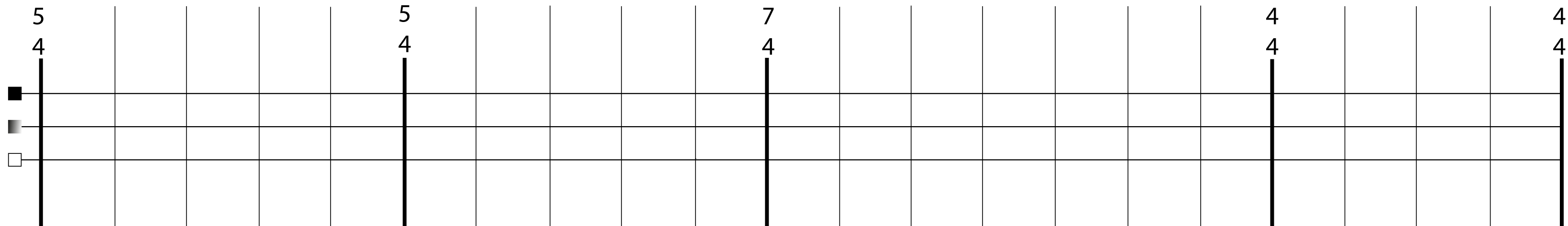
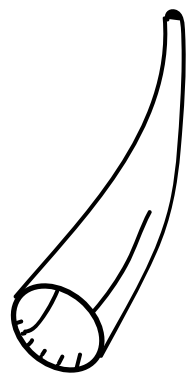
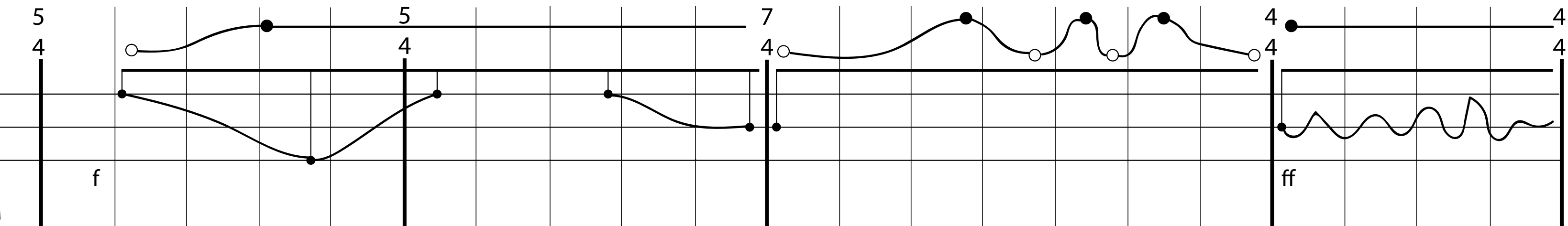
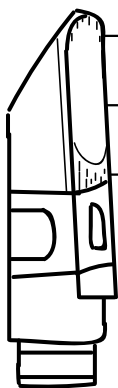
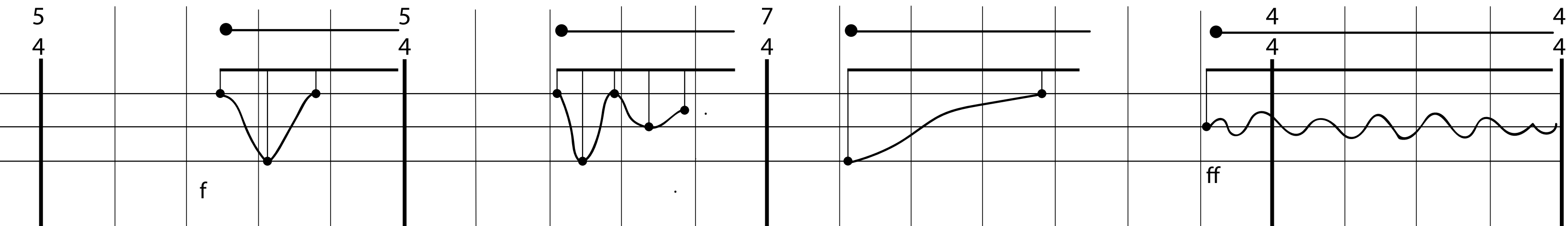
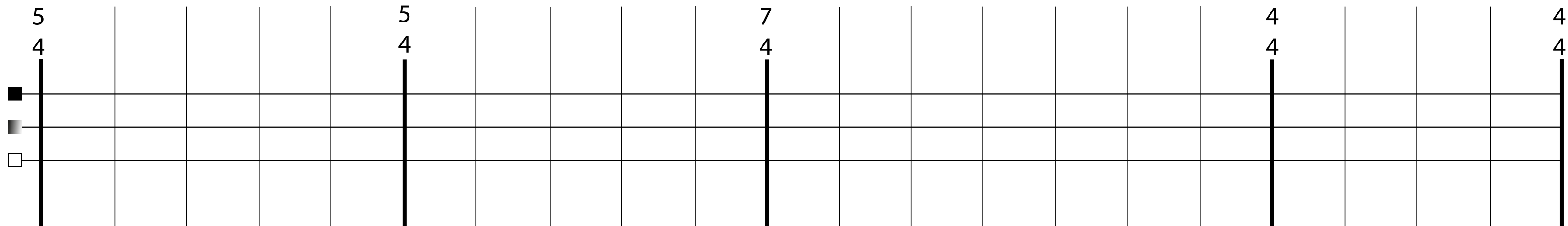
5 5 7  
4 4 4

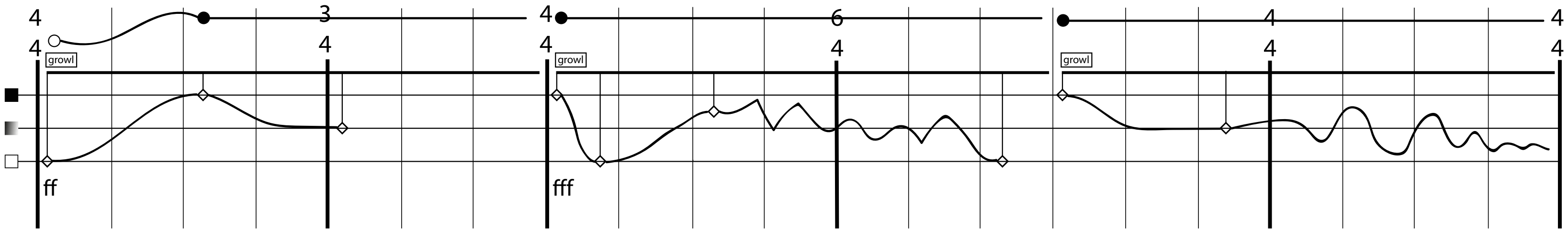
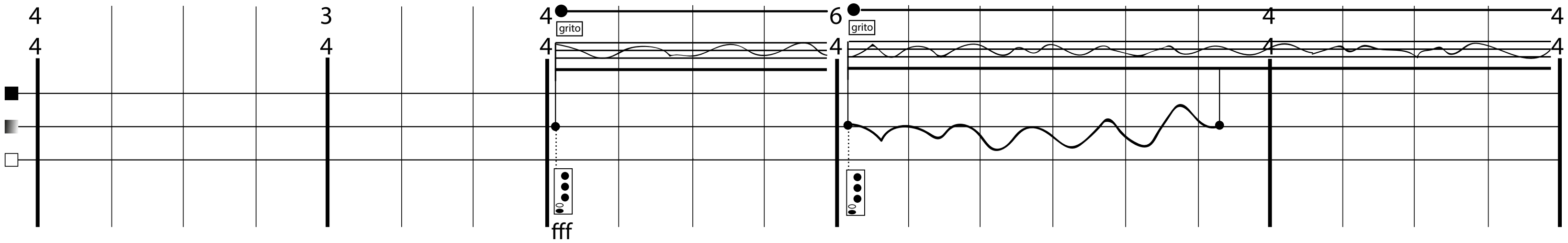
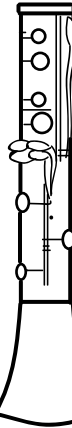
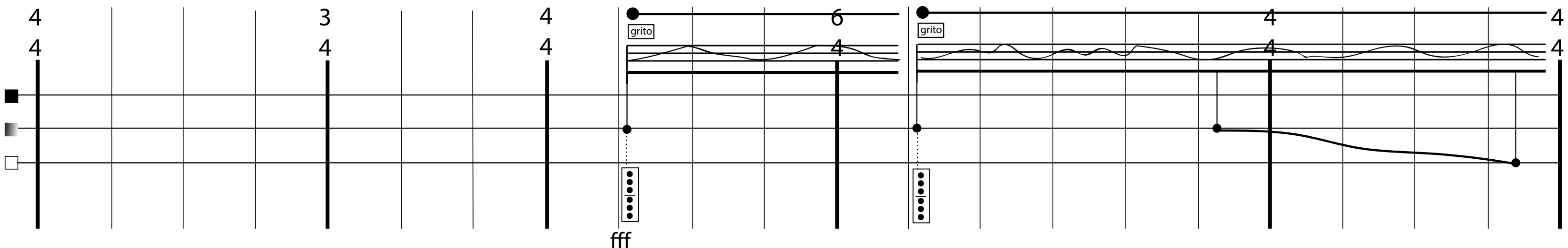
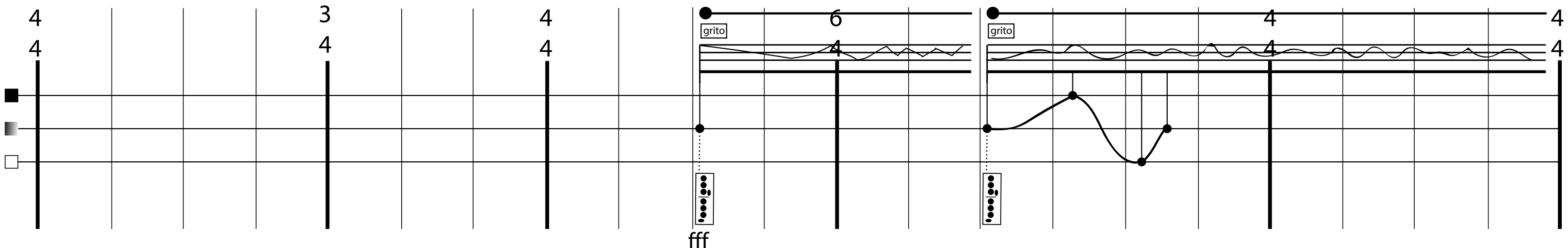
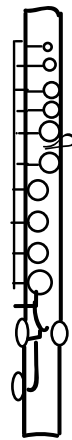
ffff

5 5  
4 4

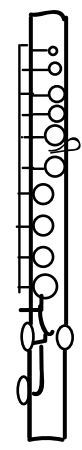
ffff

\*Nube volcánica





\*Evento tornillo



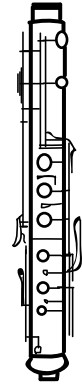
4 4

7 4

6 4

ffff

Diagram for Flute: Shows a staff with a treble clef and a 4/4 time signature. The music begins with a whole note on G7. At the 2nd measure, there is a dynamic marking 'ffff' and a fingering diagram for the right hand (fingers 1-2-3-4) and left hand (fingers 1-2-3-4). The melody continues on G7 through the 4th measure, then descends to F6 in the 5th measure, and finally to E6 in the 6th measure. A double bar line is at the end of the 6th measure.



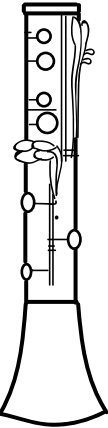
4 4

7 4

6 4

ffff

Diagram for Clarinet: Shows a staff with a treble clef and a 4/4 time signature. The music begins with a whole note on G7. At the 2nd measure, there is a dynamic marking 'ffff' and a fingering diagram for the right hand (fingers 1-2-3-4) and left hand (fingers 1-2-3-4). The melody continues on G7 through the 4th measure, then descends to F6 in the 5th measure, and finally to E6 in the 6th measure. A double bar line is at the end of the 6th measure.



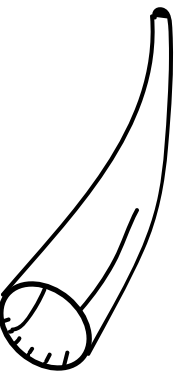
4 4

7 4

6 4

ffff

Diagram for Saxophone: Shows a staff with a treble clef and a 4/4 time signature. The music begins with a whole note on G7. At the 2nd measure, there is a dynamic marking 'ffff' and a fingering diagram for the right hand (fingers 1-2-3-4) and left hand (fingers 1-2-3-4). The melody continues on G7 through the 4th measure, then descends to F6 in the 5th measure, and finally to E6 in the 6th measure. A double bar line is at the end of the 6th measure.



4 4

7 4

6 4

ffff

Diagram for Trumpet: Shows a staff with a treble clef and a 4/4 time signature. The music begins with a whole note on G7. At the 2nd measure, there is a dynamic marking 'ffff' and a fingering diagram for the right hand (fingers 1-2-3-4) and left hand (fingers 1-2-3-4). The melody continues on G7 through the 4th measure, then descends to F6 in the 5th measure, and finally to E6 in the 6th measure. A double bar line is at the end of the 6th measure.