

Clefs and Staves

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In music

A **score** is a **system** of several **staves**, for voices played in parallel.

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Staff, staves or stave, staves.

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A **score** is a **system** of several **staves**, for voices played in parallel.

Staff, staves or stave, staves.

Nowadays in Western musical notation, a staff is a set of five horizontal lines and four spaces that each represent a different musical pitch or in the case of a percussion staff, different percussion instruments. (*Wikipedia.*)

A **score** is a **system** of several **staves**, for voices played in parallel.

Staff, staves or stave, staves.

Nowadays in Western musical notation, a staff is a set of five horizontal lines and four spaces that each represent a different musical pitch or in the case of a percussion staff, different percussion instruments. (*Wikipedia.*)

A **clef** relates a staff to precise **pitch**.

5 lines, numbered from bottom to top (the same for space between lines),

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there are exceptions: percussion instruments with indetermined pitches:

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5-line staffs: that has not always been the case.

Historically

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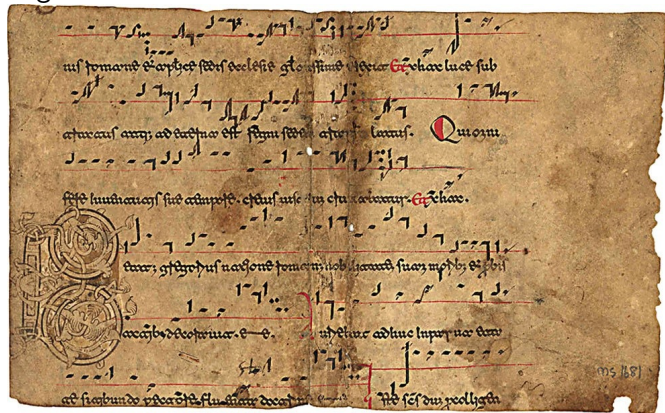
Another evolution: neumes \implies Byzantine music notation.

Historically

First Western notation: *neumes*.

Another evolution: neumes \implies Byzantine music notation.

Adding a central line:



4–6 lines

Gregorian chant \Leftarrow 4 lines.

4–6 lines

Gregorian chant \leftarrow 4 lines.

Standardization into 5 lines at the XIIIrd century, but for particular cases, 4-line staves or 6-line ones existed until the XVth century.

Example (William Byrd, 1539–1623):



Origin

A staff with many lines would have been unreadable, so a (4,5)-line staff is related to a *register*.

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Gregorian chant \Leftarrow F and C clefs.

10 clefs

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10 clefs



Disappeared:

- ▶ 5th-line F-clef,

10 clefs



Disappeared:

- ▶ 5th-line F-clef,
- ▶ then, 5th-line C-clef,

10 clefs



Disappeared:

- ▶ 5th-line F-clef,
- ▶ then, 5th-line C-clef,
- ▶ 1st-line G-clef \leftarrow French clef for violin, until the XVIIIth century.

Originally



- ▶ 4th-line F-clef \leftarrow bass voice,
- ▶ 3rd-line F-clef \leftarrow baritone voice,
- ▶ 4th-line C-clef \leftarrow tenor voice,
- ▶ 3rd-line C-clef \leftarrow alto voice,
- ▶ 2nd-line C-clef \leftarrow mezzo-soprano voice,
- ▶ 1st-line C-clef \leftarrow soprano voice,
- ▶ 2nd-line G-clef \leftarrow instrumentally.

Transposition



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- ▶ 4th-line F-clef \leftarrow bass instruments,
- ▶ 4th-line C-clef \leftarrow bass instruments in the medium register, e.g., trombone, basson, cello,
- ▶ 3rd-line C-clef \leftarrow viola and alto trombone,
- ▶ 2nd-line G-clef \leftarrow others.

One octave higher or lower:

- ▶ very high instruments, e.g., piccolo \Leftarrow 2nd-line G-clef, one octave higher,
- ▶ very low instruments, e.g., double bass or double bassoon \Leftarrow 4th-line F clef, one octave lower,
- ▶ tenor voice \Leftarrow 2nd-line G-clef, one octave lower,

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double G-clef \Rightarrow one octave lower.

F-clef

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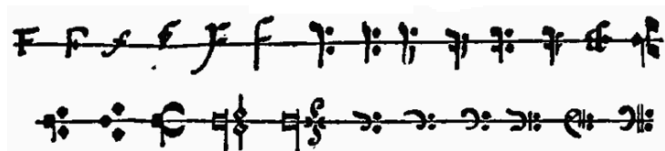
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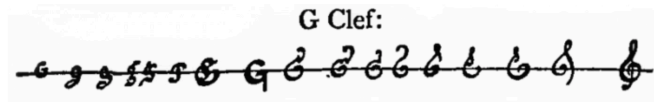
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G-clef



Which clefs to know?



2nd-line G-clef, 4th-line F-clef, 4th-line C-clef, 3rd-line C-clef

Which clefs to know?



2nd-line G-clef, 4th-line F-clef, 4th-line C-clef, 3rd-line C-clef

If you would like to read scores for orchestra:

- ▶ 1st-line C-clef \Leftarrow A-clarinet,
- ▶ 2nd-line C-clef \Leftarrow horn.

If you are interested in Harmony/Counterpoint studies:

| | |
|--------------------------------------|------------------------------------|
| soprano \Leftarrow 1st-line C-clef | tenor \Leftarrow 4th-line C-clef |
| alto \Leftarrow 3rd-line C-clef | bass \Leftarrow 4th-line F clef |

Conclusion

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Interesting evolution, from a graphical point of view.

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Interesting evolution, from a graphical point of view.
Torture tests for music students.