



# Francois-Xavier JEAN

France

## la rhubarde et le ciseau (opus 90, No.03)

### A propos de l'artiste

**Qualification :** thèse de doctorat freelance  
**Sociétaire :** SACEM - Code IPI artiste : 00483 46 92 21  
**Page artiste :** [https://www.free-scores.com/partitions\\_gratuites\\_francoisxavierjean.htm](https://www.free-scores.com/partitions_gratuites_francoisxavierjean.htm)

### A propos de la pièce



**Titre :** la rhubarde et le ciseau  
[opus 90, No.03]  
**Compositeur :** JEAN, Francois-Xavier  
**Droit d'auteur :** Copyright © Francois-Xavier JEAN  
**Instrumentation :** Orgue seul  
**Style :** 20eme siecle

Francois-Xavier JEAN sur [free-scores.com](https://www.free-scores.com)



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François-Xavier Jean

La rhubarde et le ciseau

opus 90, No. 03

## L'histoire de la rhubarbe et du ciseau"

La rhubarbe et le ciseau

<https://chat.openai.com/>

"L'histoire de la rhubarbe et du ciseau" est une expression française qui signifie qu'il est difficile de choisir entre deux options qui semblent également attrayantes ou nécessaires. Elle met en avant le dilemme entre deux choix difficiles à trancher. Cette expression est souvent utilisée pour illustrer des décisions délicates où il est difficile de décider quelle option est la meilleure.

## produit scalaire et produit vectoriel

*échange épistolaire avec mon ami musicien et mathématicien Jean Benoît Missoffe*

*En interrogeant <https://chat.openai.com/> avec les mots clés PRODUIT DE VECTEURS voici sa double réponse selon qu'il s'agisse de "produit scalaire alias produit point" et produit vectoriel alias produit croisé. J'avoue que je comprends parfaitement le premier et me noie dans le second*

### produit scalaire

alias produit point

Mathématiquement, si  $\mathbf{u} = (u_1, u_2, u_3)$  et  $\mathbf{v} = (v_1, v_2, v_3)$  sont deux vecteurs dans l'espace tridimensionnel, leur produit scalaire est :

$$\mathbf{u} \cdot \mathbf{v} = u_1v_1 + u_2v_2 + u_3v_3$$

### produit vectoriel

alias produit croisé

Mathématiquement, si  $\mathbf{u} = (u_1, u_2, u_3)$  et  $\mathbf{v} = (v_1, v_2, v_3)$  sont deux vecteurs dans l'espace tridimensionnel, leur produit vectoriel est :

$$\mathbf{u} \times \mathbf{v} = \begin{vmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \\ u_1 & u_2 & u_3 \\ v_1 & v_2 & v_3 \end{vmatrix} = (u_2v_3 - u_3v_2)\mathbf{i} + (u_3v_1 - u_1v_3)\mathbf{j} + (u_1v_2 - u_2v_1)\mathbf{k}$$

## vecteurs U &amp; V

U (1,4,5) V (-2,-1,+1)

U x V = V1 (-2,-4,+5)

Ux- V= V2 (+2,+4,-5)

Ux 2V= V3 (-4,-8,+10)

alias (-4,+4,-2)

A la fig 1, le vecteur V1 commence à la note Bb. (-2,-4,+5) signifie le nombre de demi tons qu'il faudra successivement parcourir à partir de Bb, soit: Bb\Ab\Fb/Db (Bb -2 = Ab) 'Ab - 4 = Fb) (Fb +5 demi-tons = Gb).

A la fig 2, le vecteur V3 commence à la note Db. (-6,-3,+3) signifie le nombre de demi tons qu'il faudra successivement parcourir à partir de Db, soit: D b\G\E/G (Db -6 demi-tons = G) (G - 3 demi-tons = E) (E +3 demi-tons = G).

A la fig 3, le vecteur V2 commence à la note F, soit F/G/B\Gb puis plus loin sur la note Gb, soit G/A/Db\Ab.

# La rhubarde et le ciseau

opus 90, No. 03

**A**

♩=60

François-Xavier Jean

The first system of the musical score consists of two staves. The upper staff is in bass clef and the lower staff is in treble clef. The key signature has one flat (B-flat). The tempo is marked as ♩=60. The music features several triplet markings (indicated by a '3' over a bracket) and a trill (tr) in the upper staff.

The second system of the musical score consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The key signature has one flat. The tempo is marked as ♩=60. The music features several triplet markings (indicated by a '3' over a bracket) and trills (tr) in both staves. The time signature changes from 2/4 to 2/4.

The third system of the musical score consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The key signature has one flat. The tempo is marked as ♩=60. The music features several triplet markings (indicated by a '3' over a bracket) and a trill (tr) in the lower staff. The tempo is marked as *a tempo* and *en ralentissant*. The time signature changes from 2/4 to 2/4.

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N° 00483 46 92 21

thèse freelance de doctorat

**C**

2.

7

Musical notation for measures 7 and 8. Measure 7 features a bass line with a triplet of eighth notes (Bb, A, G) and a treble line with a quarter note (Bb) and a quarter rest. Measure 8 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest.

Musical notation for measures 9 and 10. Measure 9 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest. Measure 10 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest.

10 ♩=63

**B**

Musical notation for measures 10, 11, and 12. Measure 10 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest. Measure 11 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest. Measure 12 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest.

*V3 sur Eb*  
(-6,-3,+3)

13

Musical notation for measures 13 and 14. Measure 13 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest. Measure 14 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest.

15

Musical notation for measures 15 and 16. Measure 15 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest. Measure 16 features a bass line with a quarter note (Bb) and a quarter rest, and a treble line with a quarter note (Bb) and a quarter rest.



18

*en ralentissant*
 $V(+3,+3,-4,-1)$ 

21 **D** ♩=30

 $V(-2,-2,-2,+3,+5)$ 

Fine ♩=50

24

27

Musical notation for measures 27-29. Measure 27: Treble clef has a quarter rest and a quarter note with a flat; Bass clef has a quarter note with a flat. Measure 28: Treble clef has a quarter rest and a quarter note with a flat; Bass clef has a quarter note with a flat. Measure 29: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Trills are marked above the final notes of measures 27, 28, and 29.

30

Musical notation for measures 30-33. Measure 30: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Measure 31: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Measure 32: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Measure 33: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Trills are marked above the final notes of measures 30, 31, and 32.

34

$\text{♩} = 50$

Musical notation for measures 34-36. Measure 34: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Measure 35: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Measure 36: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Trills are marked above the final notes of measures 34, 35, and 36.

37

V (-2,-2,-2,+3,+5)

Musical notation for measures 37-39. Measure 37: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Measure 38: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Measure 39: Treble clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat; Bass clef has a quarter note with a flat, a quarter note with a flat, and a quarter note with a flat. Trills are marked above the final notes of measures 37, 38, and 39.

10

V (-2,-2,-2,+3,+5)

40

Musical score for measures 40-42. Measure 40: Treble clef has a quarter rest, bass clef has a quarter note G2. Measure 41: Treble clef has a quarter note G4, bass clef has a quarter note G2. Measure 42: Treble clef has a quarter note G4, bass clef has a quarter note G2. Trills (tr) are marked above the G4 notes in measures 41 and 42. Triplet markings (3) are present over the G4 notes in measures 40, 41, and 42.

43

D.C. al Fine

Musical score for measures 43-45. Measure 43: Treble clef has a quarter note G4, bass clef has a quarter note G2. Measure 44: Treble clef has a quarter note G4, bass clef has a quarter note G2. Measure 45: Treble clef has a quarter note G4, bass clef has a quarter note G2. Trills (tr) are marked above the G4 notes in measures 43 and 44. Triplet markings (3) are present over the G4 notes in measures 43 and 44. The piece ends with a double bar line.

26

Two empty musical staves, one for the treble clef and one for the bass clef, with a brace on the left side.