

Erik Satie's ballet *uspu*: prime numbers and the creation of a new language with only half the alphabet

by Robert Orledge

'He [Satie in the 1890s] was in the position of a man who knows only thirteen letters of the alphabet and decides to create a new literature using only these, rather than admit his own insufficiency. For sheer bravado, it was unparalleled at the time, but he made it a point of honour to succeed with his system'.

(J.P. Contamine de Latour, 1925)¹

Latour's recollection of his years with Satie offers the most reliable account of his Rose+Croix years in Montmartre. At one low point they shared 'a pair of trousers and a pair of shoes'² which they had to mend daily before either one of them went out. So there cannot be much Latour did not know about Satie's hand-to-mouth Bohemian life and aspirations at this time. They came closest during 1886-92 and between 1900 and 1905, when they again collaborated on songs and theatrical projects (see Plates 1 and 2). What happened to their friendship between 1892 and 1900, or after 1905 is as yet unknown. One of Satie's earliest publications³ is dedicated to his Spanish poet-friend⁴, and between 1887 and 1888, Satie's father Alfred published Erik's settings of Latour's 'Élégie' (Op. 19), 'Les Anges', 'Les Fleurs' and 'Sylvie' (Op. 20), and 'Chanson' (Op. 52 [sic]). Whilst Latour's rather sentimental poem 'Sylvie' inspired the first barless song with chains of chords stretching as far as the dominant

¹ From 'Erik Satie intime: souvenirs de jeunesse', *Comoedia*, 3 August 1925, 2, as translated by Roger Nichols in Orledge: *Satie Remembered* (London, Faber, 1995), 25. ['Il était dans la situation d'un homme qui ne connaîtrait que treize lettres de l'alphabet et déciderait de créer une littérature nouvelle avec ces seuls moyens, plutôt d'avouer sa pauvreté. Comme audace on n'avait pas encore trouvé mieux, mais il tenait à honneur de réussir avec son système.']

² Orledge, *ibid.*, 16 ['Je me souviens d'un certain pantalon et d'une certaine paire de chaussures qui passaient de l'un à l'autre.']

³ The *Fantaisie-valse* for piano, published in *La Musique des familles*, VI/302 on 28 juillet 1887, but dating from 1885 or 1886.

⁴ His full name was José Maria Vincente Ferre, Francisco de Paula, Patricio Manuel Contamine (1867-1926) as Ornella Volta has discovered. He was born in Tarragona and was a prolific writer of poems, plays, short stories and newspaper articles, which he grandly signed 'J.P. Contamine de Latour', or around the turn of the century, 'Lord Cheminot'. He claimed to be related to Napoleon, but in reality he was as poor as Satie in the 1880s when they discovered the delights of the Chat Noir together.

thirteenth, the other side of the coin shows his apocalyptic verses as a rather unlikely source of inspiration for the 1887 *Sarabandes*. These pieces offer a classic example of Satie writing music that was completely at odds with a dramatic text, as was later to be the case with their 1892 collaboration on the strange ‘Christian ballet’ *uspud*. This perhaps suggests a reason why their friendship cooled after this, even if they seemed to have enjoyed the provocative *uspud* collaboration itself. And perhaps it was Satie’s turn to move away from Latour after the *Légende Californienne* of 1904 or 1905 when he began to study counterpoint at the Schola Cantorum with Albert Roussel to improve his technical skills as a composer.

PLATE 1: *uspud* medallion by Suzanne Valadon showing Satie and Contamine de Latour. Separate printing on papier de chine (1895) with Valadon’s signature removed by Satie (author’s collection).

PLATE 2: Satie and Contamine de Latour outside a Montmartre café around 1905 (author’s collection).

It has always been assumed that Latour was referring only to Satie’s lack of orthodox musical training when he made his celebrated reference to Satie only knowing half the alphabet. But Satie had already spent seven years (1879-86) at the Paris Conservatoire and his earliest compositions, the *Valse-ballet* and *Fantaisie-valse*, are perfectly assured, publishable salon pieces, no doubt influenced by those of his father and his stepmother, Eugénie Satie-Barnetche. Obviously Satie’s struggle to find an original voice with what he saw as limited technical means was at the centre of the issue, and the 13 two-chord cells from which the *Fête donnée par des Chevaliers Normandes* (c. 1892) is systematically constructed spring immediately to mind.⁵ But it would seem

⁵ See Orledge: *Satie the Composer*, Cambridge, CUP, 1990, repr. 1992, 2008, 185-88 for fuller details.

at least possible that Latour's statement could equally well be considered from a literary viewpoint. Especially so if we consider Satie's original use of what Patrick Gowers has christened 'punctuation form' in the recurring sensuous cadential system of the *Prélude du Nazaréen* (1892)⁶, his first use of all lower case lettering in *uspu*d (anticipating e.e. cummings), and his use before Mallarmé or Apollinaire of poetic fragmentation techniques in the *Danses Gothiques* of 1893. As in his systematised compositions, the concept was simple but far-reaching, and it relied more on iconoclastic ideas than on technique *per se*.

*uspu*d presents a particularly fascinating case on which Satie and Latour collaborated during November-December 1892, and for which two similar versions exist with their strange, disembodied music for flutes, strings and harps (with 12 recurring motives in this case). However, what has always intrigued me most are the invented names within Satie's 'Genealogy of the Uspud family'.

'Véritable formation généalogique de la famille dont Uspud est issu.'

Irnebizolle, soeur d'Uspud; Jindebude, mere de Saint Plau; Yturrube, fils de Corcleru; Uspud, fils de Saint Plau; Ontrotance, cousin de Sainte Benu; Saint Plau, frère de Tumisrudebude; Corcleru, oncle d'Apufonse; Saint Induciomare, frère d'Yturrube; Sainte Micanar, cousin d'Entimedu; Gulbejare, père d'Irnebizolle; Apufonse, frère d'Ontrotance; Sainte Benu, soeur de Jindebude; Entimedu⁷, oncle de Saint

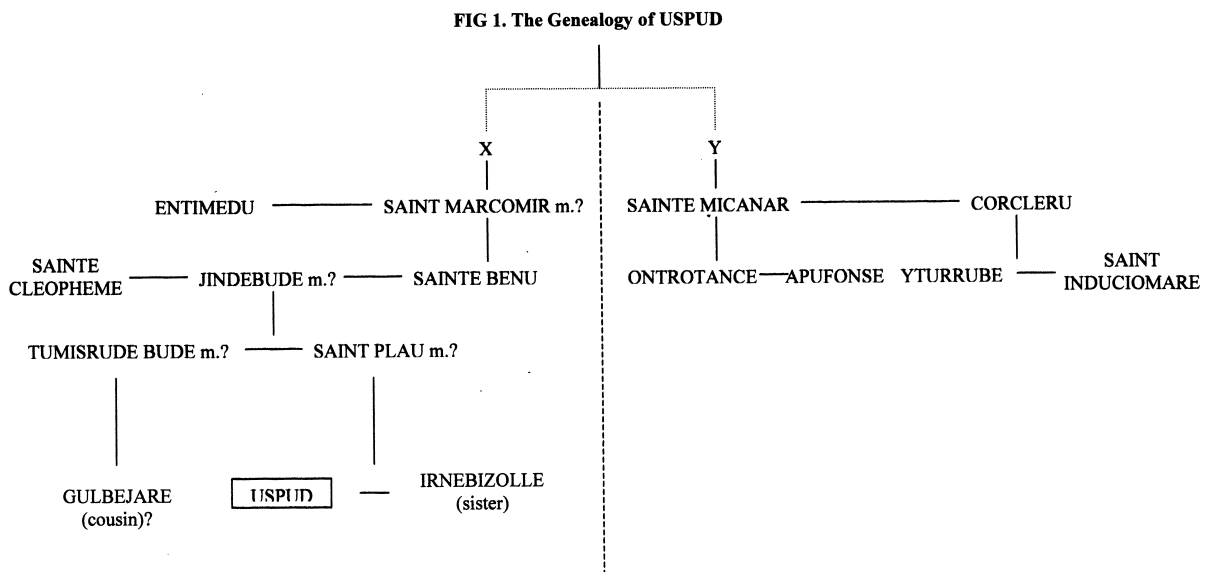
⁶ See *Satie the Composer*, 146-53 for full details. In reality, there is only a single prelude, split into two parts and signed and dated by Satie at the end. They were erroneously published by Rouart-Lerolle in 1929 as the third and fourth of *4 Préludes*.

⁷ Name begun as 'Etine' but crossed out, suggesting that Satie was copying from an earlier list. The feminine 'e' added to Saint Induciomare is also crossed out. This document was first reproduced in Ornella Volta: 'Erik Satie – L'os à moelle', *Revue Internationale de Musique Française*, 8/23 (Juin 1987), 71, but with several errors of transcription.

Cléophème; Saint Marcomir, père de Sainte Benu; Saint Cléophème, Grand oncle d’Uspud; Tumisrudebude, mère de Gulbejare.

Paris le 17 novembre [18]92.’

From the twelve statements by Satie, it is possible to draw up a family tree, as in Fig. 1 below. As usual, there is a red herring, for Gulbejare cannot be the father of Irnebizolle. They both belong to the same (fifth) generation if Tumisrudebude is his mother and she is also the brother of Saint Plau and the daughter of Jindebude. Another way to look at it might be that Saint Plau is both the brother and husband of Tumisrudebude and there is incest afoot!



The large ‘uspud’ brochure of April 1893 (8) shows that four of the above characters held a special fascination for Satie and were singled out as the subjects of forthcoming works in an advertisement on the final page. Thus ‘ONTROTANCE, ballet in one act’ is listed as ‘in preparation’ and ‘CORCLERU, ballet in three acts / IRNEBIZOLLE,

⁸ Printed privately (100 copies) by the Imprimerie Artistique, 42 rue de la Tour d’Auvergne. E. Woestendieck, directeur’, 16pp. This included the apocalyptic final text of *uspud* in 3 Acts and with four music examples for which Satie made his own woodblocks (now in the Fondation Satie, Paris). A medallion signed by ‘S[uzanne] Valadon’ shows Latour and a clean-shaven Satie on the cover. Her signature was erased by Satie in the smaller ‘Uspud’ brochure of 1895, 8pp., published after their brief relationship had ended.

ballet in two acts [and] / TUMISRUDEBUDE, ballet in three acts’ are listed ‘for later on (God willing)’. Typically, Satie passed on to other projects before even starting the music for these.

In the first version of the *uspud* libretto, completed on 17 November 1892, everything is in Satie’s hand, apart from two interspersed letters by Latour.⁹ The second manuscript¹⁰, copied overnight by Satie on 16-17 December 1892 to present to Eugène Bertrand at the Paris Opéra, adds strings (‘quatuor’) to the instrumental forces but is musically identical, apart from a few extra dynamics and pause bars. The text, however, has different settings for each act, and may have been intended as a genial parody of Flaubert’s *La Tentation de saint Antoine*, which was the first of the shadow theatre productions by Henri Rivière that Satie saw at the Chat Noir after leaving home in December 1887.¹¹ Besides being far less international and without celebrities such as Apollo, Venus and the Queen of Sheba, Satie has saints who marry and have some rather odd habits – ‘saint cléophème spits his teeth into his hand; sainte micanar bears his eyes on a platter; the blessed marcomir has his legs burnt to a cinder; saint induciomare’s body is pierced with arrows.’¹² In the second version of *uspud*, a number of other male and female saint(e)s are added in Act 3, though no additional genealogical information is provided for them:

saint chassebaigre, confessor, in violet robes; sainte lumore with a sword; saint

⁹ The manuscript was sold at the Hotel Drouot, Paris on 8 April 1992 (lot 115) and is now in Satie’s birthplace museum in Honfleur. It has a single desert setting for all three acts and the music is marked for flutes and harps only (as in *Le Fils des étoiles*). The carnet has 46pp and includes invented tributes to the work, occult texts, and the genealogy cited above.

¹⁰ Bibliothèque Nationale de France, Département de la Musique, MS 9631, 48pp.

¹¹ The score, published by E. Plon, Nourrit et Cie [1888], 88pp., with 46 vivid colour plates by Rivière, has very conventional music by Albert Tinchant (Act 1) and Georges Fragerolle (most of Act 2).

¹² As translated in Nigel Williams: *The Writings of Erik Satie*, London, Eulenburg, 1980, 131. No other characters in the genealogy apart from *uspud* and the saints (four in the first version, with an additional twelve in the second) appear in either libretto. However, Christ on the cross, the Christian church, and numerous unnamed demons with animal heads do.

gebu with red-hot irons; sainte glunde with a wheel; saint krenou with a sheep;
saint japuis with doves escaping from a cleft in his forehead; sainte umbeuse
spinning wool; the blessed melou the lame; saint vequin the flayed; sainte
purine the unshod; saint plau, preaching friar; sainte benu with a hatchet.
their voices summon uspod to martyrdom.¹³

Apart from the fact that Satie and Latour, like Flaubert or Proust, obviously enjoyed creating lists of names, it became clear that in the first version of the ballet they were using a reduced alphabet in which the normal vowel order had been altered. Thus K, Q, V, W and X do not appear in the original uspod alphabet, whose vowel order is E, U, I, O, A (as opposed to E, A, O, I, U). And the unusual predominance of U is not entirely linked to uspod himself. I began to wonder whether the names were somehow derivative from the longest name, Tumisrudebude, or whether the Fibonacci series (1,2, 3, 5, 8, 13, 21), or the Lucas series (1, 4, 7, 11, 18) were involved, but these led to only occasional coincidences.

I then tried the prime number series (1, 3, 5, 11, 13, 17, 19, 23). However, using the prime number equivalent for letters this would need A, C, E, G, K, M, Q, S and W to be prominent, and as we have seen K, Q, and W are missing. So, thinking of the way that the 13 musical cells consisted of more than one chord and also overlapped in the contemporary *Fête donnée par des Chevaliers Normandes*, I began to consider the same possibility for the strange names of uspod's family. It was Ornella Volta who provided the breakthrough, when she suggested that the names of Contamine de Latour and Erik Satie might have been the true starting point.¹⁴

¹³ Ibid., 131.

¹⁴ In a postcard to the author dated 4 September 2007.

Thus if we take the alphabetical equivalents of the numbers as follows:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

and then extend the prime number series through 31, 37, 41, 43, 47, 53, 59 to 61 to

take in multi-letter combinations, everything falls neatly into place in four

overlapping types of construction. These are:

Type 1: Perfect constructions with prime numbers (11 of the 25 names involved in the final version of the *uspud* libretto)

TUMISRUDEBUDE: TU 41; MIS 41; RUD 43; EBUDE 37 [also SR 37; EB 7;
BU 23]

ONTROTANCE: ON 29; TRO 53; TANCE 43 [also ROT 53; C 3; E 5]

GULBEJARE GULBEJ 47; A 1; RE 23 [also LBE 19; BEJ 17; JAR 29]

APUFONSE A 1; PU 37; FONSE 59 [also AP 17; PU 37; PUF 43]

ENTIMEDU EN 19; TI 29; MEDU 43

CLÉOPHÈME C 3; LE 17; OP 31; HEME 31 [also HE 13; M 13; E 5]

INDUCIOMARE IN 23; DUCIO 37; MARE 37 [also UCI 33; IOM 37; A 1;
E 5]

GEBU G 7; E 5; BU 23 [also EB 7]

LUMORE LUMO 61; RE 23

PURINE PU 37; RIN 41; E 5 [also IN 23]

CHASSEBAIGRE CH 11; A 1; SSE 43; BAIG 19; RE 23 [also C 3; BA 3]

Type 2, including overlapping letters

JINDEBUDE JI 19; NDE 23; BU 23; EBUDE 37 [also IN 23]

MICANAR	M 13; ICA 13; CANA 19; AR 19
UMBEUSE	UMBE 41; BEUS 47; E 5 [also MBEU 41; M 13; BE 7; S 19]
VEQUIN	VEQ 41; QUIN 61 [also QUI 47; IN 23]
GLUNDE	G 7; LUN 47; NDE 23 [also GL 19; 5]

Type 3, with floating U (or I)

USPUD	U + S 19; PUD 41 [also PU 37]
CORCLERU	C 3; ORCLE 53; ER 23 + U [also LE 17]
BENU	BE 7; EN 19 + U (though BU = 23)
PLAU	PLA 29 + U [also LA 13]
KRENOU	K 11; REN 37; NO 29 + U [also KR 29; RE 23]
JAPUIS	JA 11; PU 37 + I; S 19 [also AP 17]

Type 4, with other floating letters in pairs

IRNEBIZOLLE	IRN 41; NE 19; BIZ 37 + OL; LE 17 [also ZO 41]
MARCOMIR	M 13; AR 19; COM 31 + IR
MELOU	M 13; E 5; EL 17 + OU
[SAINT(E)S	SAI 29; IN 23 + T; E 5; S 19]

Significantly, whichever one of Satie's signatures one takes, the result is Type 1

(Perfect). Thus:

ERIK SATIE (on music)	ER 23; IKS 39; A 1; TI 29; E 5
ERIC SATIE (on contracts)	ER 23; ICS 31; A 1; TI 29; E 5
A.L. ERIK SATIE (1894-5)	AL 13; the rest as above
AIR-IKSATI (1905)	AIR-I 37; KSA 31; TI 29

SADI (1917)

S 19; A 1; DI 13

This may help to explain how Satie chose these various forms and it also suggests that, as Satie wrote out all the texts, it might have been his own name that was the original inspiration behind the prime number system. His nickname for his brother Conrad is also Type 1:

POUILLOT (1898-1902)

POUIL 73; LOT 47.

However, J. P. CONTAMINE DE LATOUR is almost as good (Type 4). Thus:

J.P. CO 47; CONTA 53; M 13; IN 23; EDELA 37; ATOU 57 + floating R

And the most remarkable thing of all is that if one takes the names of Contamine de Latour and Satie together, we get an alphabet of only thirteen letters (A, C, D, E, I, L, M, N, O, R, S, T, U), which brings us back to the quotation with which this article began.

Obviously, anyone can enjoy inventing other perfect and fanciful *uspud* characters or Saint(e)s once they understand the system. Such as:

DIZENTIBUSE

DI 13; ZE 31; NTI 43; BUSE 47

CUMJIGARE

CUM 37; G 7; IJARE 43

SAINTE MARTYRA

M 13; AR 19; TYR 53; A 1

SAINT NICOSIA

NI 23; COSIA 47

But not SAINT BERNARD BE 7; A 1 only.

The easiest method is to invent a sonorous but bizarre name and see if it works, which is what Satie (and Latour) may well have done in November 1892. The chosen desirability of the vowel U (as in USPUD and TUMISRUDEBUDE) helps to explain the Type 3 names. And perhaps Satie liked the sound of Irnebizolle so much that he

allowed its two floating letters to stand and even planned a separate ballet for Uspud's sister, who opens the genealogical list. IRNEBIZLE sounds far less attractive!

There were various reasons why *uspud* was the right choice at the right time for Satie. Firstly, it gave him a great deal of publicity in left-wing Montmartre society because Eugène Bertrand only consented to the ballet being 'presented' to him at the Paris Opéra on 20 December 1892 after Satie challenged him to a duel.¹⁵ Then it became something of a star turn at the Auberge du Clou where it provoked uproar, controversy and hilarity as Satie accompanied himself on the piano. Then, as Latour remembers,¹⁶ it served to bring Satie closer to his new friend Debussy, who alone remained 'impassive' amid the tumult, and 'realised at once what a fund of seriousness, of boldness and sensitivity lay under Satie's outrageous clowning.' Satie was ready to defy 'those who found it incomprehensible, flatly declaring that they were nothing but bourgeois ignoramus.' This is borne out by a surviving copy of the large 'Uspud' brochure (Plate 3) in which Satie explained that the 'sudden displacements' of stave and clef in the music examples were designed to 'distance the Stupid' from his music.¹⁷ The text, which the music is supposed to illustrate, reads: 'uspud, astonished, picks up some sand and rubs his eyes with it' (having just seen a vision of the Christian church in the guise of a beautiful woman).

PLATE 3: Large 'Uspud' brochure (1893), with Satie's comments in red ink on p. 8

¹⁵ Satie told his friend Ernest Le Grand that Bertrand's reception 'led me to believe that the next appearance of *uspud* at the Opéra would be in the winter of 1927; or later on in 1943.' Cited in Volta (ed.): *Erik Satie: Correspondance presque complète* (Paris, Fayard/Imec, 2/2003), 37. Its public premiere did not in fact take place until 9 May 1979, perhaps more suitably at the Opéra-Comique.

¹⁶ 'Erik Satie intime', *Comoedia*, 6 August 1925, 2; *Satie Remembered*, 29-30. ['À ceux qui ne le comprenaient pas, il déclara tout net qu'ils n'étaient que des ignorants et des bourgeois'... 'un homme restait implacable... C'était Claude Debussy. Il avait deviné du premier coup tout ce qu'il y avait de sérieux, d'audacieux, de sensible, sous la blague outrancière d'Erik Satie.']

¹⁷ Copy no. 16, 8 in the Johnny Fritz collection in Luxembourg. ['J'ai procédé par déplacement monentané, pour l'éloignement des Stupides.']

Supporting evidence that prime numbers focussed strongly in Satie's mind during the Rose+Croix period can be found in the *Danses Gothiques*, which were composed between 21 and 23 March 1893 to regain some inner peace during his tumultuous (and only) affaire with his neighbour in the rue Cortot, the artist Suzanne Valadon. These hieratic, un-dance-like dances were composed as a continuous stream of music employing 10 different musical cells or motifs, half of which had also appeared in the *Fête donnée* of 1892. In addition cells 1 and 9 are constructed from motifs found in *uspud*. The continuous draft was then dissected into nine titled dances in a way that anticipates the poetic fragmentation techniques used by Mallarmé and Apollinaire. Thus Dances 4 and 7-9 actually begin in mid-motif (see Exx. 1a and b). The first chord in no. 8 (Ex. 1b) is the end of a six-beat motif of which the first four beats are chopped off at the end of Dance 7 on a quaver chord. But if we imagine that this method of punctuation was purely arbitrary, Dance 5 is substantially longer than the dances surrounding it, and provides a central focus for the set in which all the motifs (except no. 8) appear. Furthermore, its length approaches that of the opening dance, in which the first six motifs are introduced.¹⁸

Building on this, Gilbert Delors has shown in a recent analytical paper¹⁹ how the interlocking structure of the *Danses Gothiques* is also based around prime numbers. Thus no. 2 ('Dans laquelle les Pères de la Très Véritable et Très sainte Église sont invoqués') consists of 37 beats, whilst no. 4 ('À propos de saint Bernard et sainte Lucie') and no. 8 ('En haut honneur du vénéré saint Michel, le gracieux Archange')

¹⁸ See *Satie the Composer*, 157, 189-90 and BNF MS 10048, 13ff. The Dances were published posthumously by Rouart-Lerolle in 1929.

¹⁹ 'Différentes aspects de la fragmentation dans les *Danses Gothiques* d'Erik Satie' in *L'Action Restreinte*, Proceedings of a Conference on 'L'Arte moderne selon Mallarmé' published by the Musée des Beaux-Arts de Nantes in 2006, 46-63. This paper was delivered on 17 March 2005 and focuses on links between Satie's *Danses Gothiques* and Mallarmé's *Le coup de dès*.

both have 29 beats (see Exx. 1a and b and note how the material in beats 16-24 is exactly repeated one crotchet later in no. 8. No 8 then continues directly into the final dance). Then multiples of 19 are used in no. 1 ('À l'occasion d'une grande peine') – $152 = 19 \times 8$, and no. 6 ('Où il est question du pardon des injures reçues') – $38 = 19 \times 2$. Multiples of 11 are used in no. 5 ('Pour les pauvres trépassés') – $121 = 11 \times 11$, and no. 9 ('Après avoir obtenu la remise des fautes') – $33 = 11 \times 3$. Only no. 3 ('En faveur d'un malheureux') and no. 7 ('Par pitié pour les ivrognes, honteux. débauchés imparfaits, désagréables et faussaires en tous genres') fall outside the basic pattern, although they are simply connected by different proportional means, at 12 and 24 beats respectively.

Exx. 1a and b: *Danses Gothiques* (1893), nos. 4 and 8, each with 29 crotchet beats (Rouart-Lerolle edition, 1929).

Further evidence of prime number organisation can be found in *Vexations* during the following month, with its 3 musical strands, 11 different notes in its 'thème' (which anticipates total chromaticism as early as 1893), 17 different chords in its initial harmonised strand, and 29 notes in its overall pitch range ($f-a''$). Also the only chord that is deviant from the others (no. 2) arrives at the 29th quaver of *Vexations*.²⁰ It is also worth considering that his miniature contemporary song 'Bonjour Biqui, Bonjour!', composed for Suzanne Valadon on 2 April 1893, uses just 3 chords and 5 notes in the vocal line, although the way that 1, 3, 5 and 13 overlap with the Fibonacci series sometimes makes it unclear which series Satie might have been using in a particular piece. But he was obviously obsessed by numerology, as we find him

²⁰ See Orledge: 'Understanding Satie's 'Vexations'', *Music & Letters*, 79/3 (August 1998), 386-95. This also shows how Satie used the Lucas summation series and a hexachordal compositional system far in advance of the Second Viennese School.

counting the bars of his three *Gymnopédies* as early as 1888,²¹ just as we find him returning to compositional systems in the *Nocturnes* of 1919-20. Also, if we imagine that prime numbers are a dominant factor in all Satie's Rose+Croix works, the *Prélude d'Eginhard* (1892) has a regular 24 bars and 4 motives, the hymn *Salut Drapeau!* (2 November 1891) repeats a rigid musical sequence of 44 crotchets, and the *Prélude de La Porte héroïque du ciel* (1894) uses 18 motives and 6 recurring cadential punctuation points. And there is far less certainty of overall planning of any numerical type in the nine diverse movements of the probably incomplete *Messe des pauvres* of 1893-5, even if the 'Dixit Dominus' (no. 3: 1894)²² does consist of 13 chords and the 'Commune qui mundi nefas' (no. 6; January 1895) of 97.

What is most important is that in the Rose+Croix works of the 1890s, Satie was seeking original ways to make a lot of striking music out of a little material through the repetition, overlapping and transposition of a small number of musical cells or motifs in seemingly unpredictable ways. And as we have seen, these cells could appear in more than one piece, like his use of the same Greek chromatic mode in *Salut Drapeau!* and *uspu*.²³ Perhaps he saw a model in the way his father and stepmother had used extensive sectional repetition in their salon pieces and this was his modern equivalent, using distinctive repetitive rhythms and harmonic progressions together with melodic patterns inspired by Gregorian chant. Germanic development an any sort of functionality or climax are conspicuous by their absence.

²¹ For fuller accounts of his use of Golden Section proportioning see *Satie the Composer*, 157-8 and Courtney S. Adams: 'Erik Satie and Golden Section Analysis', *Music & Letters*, 77 (1996), 242-52.

²² Otherwise known as 'Intende votis supplicum' in its first published version by the Librairie de l'Art Indépendant in 1895. It is erroneously titled 'Dixit domine' in the Rouart-Lerolle publication of 1929.

²³ See *Satie the Composer*, 154, 160.

Above all, Satie wanted his music to sound free and to look different from nineteenth-century Romantic models, hence the barlessness, the punctuation of his chordal chains with distinctive recurring cadence patterns, and his overall slow tempi, which had the double virtue of making the music last longer and of divorcing it from the overtly dramatic situations for which much of it was composed. It also gave Satie a unified and unique stylistic identity from the outset of his professional career, and in the process of thinking how music might break new ground, he anticipated many of the advances of the following century, which lead us to the many composers who in turn regarded his work as a living tradition and a source of inspiration, notably in John Cage's reaction to the prevailing total serialism of the 1950s and in the minimalist works of Steve Reich, Terry Riley and La Monte Young, to name but a few. If serialism is now dying, it nonetheless vindicated Satie's penchant for numerology in the works of Berg in particular, and the importance of prime numbers for both composers can perhaps now be fully appreciated, even if their greatest importance for Satie seems to have been for only a short period in 1892-93. But what remains clear is that Satie's ideas were distinctive and original as much as being distinctively French through their roots in medieval architecture and plainchant, and that his influence on the twentieth-century avant-garde extended far beyond mere nationalistic boundaries and will continue into the present century.

Erik Satie's ballet *uspuđ*: prime numbers and the creation of a new literature with only half the alphabet

by Robert Orledge

Abstract: As his Spanish poet-friend, Patrice Contamine de Latour, recalled in 1925, Satie in the 1890s 'was in the position of a man who knows only thirteen letters of the alphabet and decides to create a new literature using only these...he made it a point of honour to succeed with his system.'

In so doing, Satie's Rose+Croix compositions made many important innovations that proved influential in twentieth-century music, from total chromaticism (*Vexations*), poetic fragmentation (*Danses Gothiques*), to new ways of linking literature with music (*Prélude du Nazaréen*).

Musical systems abound in Satie's compositions, as they were later to do with the Second Viennese School, and new research will demonstrate the crucial role played by prime numbers and reduced alphabets in *Uspud* (1892) and elsewhere. These prove to be equally important to the Fibonacci and Lucas proportional series employed by Debussy, Ravel, Bartók and Satie himself as means of musical organisation, and Satie's fascination with prime numbers anticipates the methods of Berg.