

Eric Sams

## Did Schumann use ciphers?

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"Singularity is almost invariably a clue"

Sir Arthur Conan Doyle: *The adventures of Sherlock Holmes*

*This article suggests that behind Schumann's music lies a system of substitution cipher. Any talk of ciphers is, understandably, received with profound scepticism. In this case there is no external evidence in the ordinary sense. The question at the moment is one of the balance of probabilities.*

*What follows is designed to set out, just as they occurred, the main considerations and events that led to the construction of the cipher tables described and exemplified; and readers are invited to test and judge for themselves.*

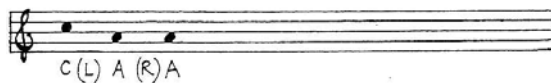
In Schumann if in any man the concept of music and letters was profoundly unified. It is in his treatment of names that the two most evidently meet and fuse. His Op 1 was ostensibly based on the musical equivalents of the name of a chance acquaintance, Meta Abegg. *Carnaval* makes ingenious use of the musical equivalents of the letters of the birthplace, Asch, of Ernestine von Fricken, to whom he was for a time engaged. Op 60 pays the traditional homage to Bach by writing fugues on his name; No 41 of the Album for the Young pays similar tribute to the Danish composer Gade.

We know too with what satisfaction Schumann recorded that both these last two names could be represented as one single note given four different meanings by means of interlocking clefs. We know with what pleasure he noticed that, as he wrote to Clara Wieck two years before their marriage, Ehe (marriage) was a very musical word; and the nuptial radiance of the piano part of the masterpiece *Mondnacht* may owe something to its awareness of that motif adorning its left hand. The quality of this music is itself enough to suggest that this use of letters was almost as deeply felt a part of Schumann's expressive symbolism as musical notes themselves. The available documents also suggest that Schumann's creative mind was literally literal:

So was it not very singular, I found myself asking, that such a man had transliterated names to which he could have had no very profound emotional attachment, yet not the one name that meant more to him than any other in the world? True, the names he used consisted entirely of musical letters while Clara had only three out of five. But of all minds in the whole history of music his was the most attuned to musical anagrams, rebuses and mystifications of all kinds. Of course he could have transcribed Clara's name in music, and if he could have done then it was a good working hypothesis that he did. The practical questions were, how and where.

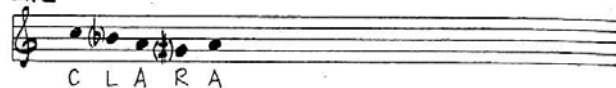
How, is easy enough. The musical letters give C, A, A:

Ex 1



For the missing letters there are infinite possibilities. But the simplest (and for a melodist the obvious and necessary) way would be stepwise to make a smooth singing contour, thus:

Ex 2



To find this we would naturally look first at the songs of Op 25, the so-called *Myrthen* (myrtles were the 19th-century German equivalent of orange-blossom as traditional wedding finery), which were Schumann's wedding present to his wife in 1840.

One of the best known of all these songs is *Die Lotosblume*. Heine's poem tells how the normally chary lotus flower, in a prodigal moment, unmask her beauty to the moon. In the marvellous music of the first page we hear how this idea floods the composer's mind with a sonorous radiance within which beauty is revealed unveiled; or, in other symbols:

Ex 3



This then might be Clara *en clair*. As for the bridal veil; one Op 25 song, and one only, contains that notion. In the charming *Wenn durch die Piazzetta* a woman is recognized by her lover despite mask and veil. The unveiled Clara-motif appeared in the opening melody of *Lotosblume*; now it is the closing notes - of this passionate plea for elopement, to a disguised but still recognizable beauty, that say

Ex 4



The same shape of sound is recognizable in half a dozen other places in *Myrthen*, mostly in association with apt words, *eg* in No 11 at "ihn lieb all so sehr" (love him so very much); in No 19 at "küsstest du den Gatten" (you will kiss your husband) and in No 20 at "denk ich an ihn der weit, weit" (think of him who is far away) - the lovers in fact being separated at this time. There are many similar examples in the *Liederkreis* op 24, among Schumann's earliest songs -also written entirely in the thought of Clara, as he told her. The most enjoyably quotable example is in the song of impatient waiting, No 2, where this motif at the pitch quoted above, in the three bars beginning at the eighth from the end, spells out C-L-A in the piano right hand, R-A in the left. It abounds too in *Dichterliebe*, the best-known passage being in the second song. Here the poet says "if you love me, my child". The woman whom Heine is here addressing remains unidentified despite much research. Schumann seems to be addressing

Ex 5



There are many other similar examples in the 1840 songs. Some of the piano music too is saturated with this motif and its more obvious variants; thus it occurs, extended, truncated and in cancrizans, throughout the *Davidsbündlertänze* of 1837 (which, as the letters tell us, were intimately dedicated to Clara).

Stepwise melodies are no great rarity in music; and they teem in Schumann. But their persistent and ubiquitous presence in a definable form in works known by external evidence to be associated with Clara seems more than coincidence; and when one further considers the fact that this form always occurs at or about the same pitch, the inference that they are a transliteration of her name seems at least permissible.

Now in a letter of 1840 to a friend Schumann did say, mysteriously, that *Myrthen* certainly afforded a closer insight into the "inner workings of my music". But there is nothing that could really be called a hint of a transliteration of the name Clara. It seemed singular that Schumann, usually so ready to talk about his musical procedures, should have been a founder-member of this conspiracy of silence, if that is what it was. Of course lovers have secrets, but to expect such a secret to last a century and a quarter, for his whole life till 1856, for her whole life till 1896, and for another 70 years as well, is to test probability beyond breaking-point. So if there was a transliteration it looked as if Schumann had deliberately concealed it. If so - since there can be no point in concealing the obvious - was he perhaps concealing the apparently random association of the letters L and R of Clara with the notes assigned to them? (say B and G, as in Ex 2 above). And if so, then - since there can be no point in concealing a purely arbitrary association - was the association perhaps *not* arbitrary? Were these letters perhaps *enciphered*? It is easy to see why Schumann would not want such a fact to be disclosed during his lifetime. Composition in the romantic era came by inspiration; any suggestion of the intervention of the discursive intelligence, especially by so contrived a process as encipherment, would have been universally condemned.

With these points in mind it seemed worthwhile to have a look at the assumption that the name Clara was enciphered; just to see what the possibilities were. After a time, a pattern began to emerge, based on the following considerations.

The equivalents of A and C would be obvious; B would naturally belong between them; the result suggests a scale, perhaps of eight notes rather than seven, since eight can be divided among 26 letters with a smaller remainder; this in turn would imply a three-line arrangement; the L and R of Clara would have to correspond to the basic notes B and G, but otherwise convenience would dictate alphabetical order; and finally it would appear from the examples quoted that each note could at will be regarded as flat, sharp or natural.

As it turned out all these assumptions appeared justifiable, except the first and obvious one; perhaps there is a moral in that. The interim result was:

Ex 6 each note b, b $\flat$  or #

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

This looked promising; and sure enough the first results were delectable. Clara's maiden name yielded a theme

Ex 7

W I E C K

well-known from *Carnaval*, the *Fantasiestücke* No 8, *Kreisleriana* No 2, *Bunte Blätter* No 13, and the Piano Quartet op 47. Better still, the word Robert could be transcribed as an arpeggio theme in aptly vigorous contrast with the gentler curvilinear Clara. Thus it can be read from the table

Ex 8

R O B E R T

as what might have been (with enviable sang-froid) a self-portrait in "Er, der herrlichste von allen" (He, the finest of all men), or as the theme of the manly *Talismane*, the song following *Die Lotosblume* in Op 25.

Yet this arpeggio is an everyday expression in music, with notes that have no special connotation, let alone denotation. There is for example the fine moment when this very same theme on trumpets and horns comes blazing into the finale of the *Rhenish* Symphony; and many musicians would hate to have this sounding brass turned into a tinkling symbol. As if in sympathy, the cipher refused to work from that moment on. No other melodic line brought up any letters that made sense; and conversely the cipher equivalents of the various other words tried, though sometimes remarkably suggestive of the work of later composers, were remarkable only for their hopelessness as far as Schumann was concerned. There was no obvious flaw in the reasoning; yet the road that had seemed so clear and well-signposted suddenly narrowed to an apparently impassable track. At the same time it did not look like the wrong track; indeed the destination seemed to be only just out of sight or earshot.

In this situation I turned again to Roger Fiske's interesting article in *The Musical Times* of August 1964-mainly about the *Dauidsbündlertänze* - to see if that would suggest any direction. I re-read his account of a recurrent motif in these pieces (which corresponds to various versions of the Clara motif, described above) and its putative source in *Ballet des Revenants* from Clara's own Op 5, the first volume of her *Soirées Musicales*. It had seemed to me prima facie unlikely that Schumann had ever borrowed expressive musical material from Clara; indeed her music very strongly suggests the contrary procedure. And the present hypothesis required that he would have known this motif to be there in Clara's work, for the excellent reason that he put it there himself. But why should he have done that? Here is the theme, as quoted in the article-except that given the dual idea of music and letters one can name the notes - and then note the names -

Ex 9 F E/CLARA A

A R A L C E F

a visible sign and symbol of Schumann in his dual guise as F for Florestan and E for Eusebius, lovingly alongside his Clara in the single disguise he had fashioned for her.

The palindromic effect is pleasing; *Ballet des Revenants* indeed. But the given pattern of FE CLARA seemed so clearly deliberate and meaningful that it might well be the veiled secret, the hidden heart of all the hymning to Clara. And so it proved. Once admit the idea that nothing can be allowed -to come between E for Eusebius and C for Clara, and it follows that the letter D must be displaced from its position on the top line of the cipher table and put elsewhere. This proceeding and its motivation is as

simple and strange (and perhaps in its way, as moving) as similar symbolism expressed in Schumann's purely musical terms; and if it seems farfetched, it is fetched no further than the necessary distance that separated Schumann's marvellous mind from everyday reality:

This change of position for the Clara motif in the cipher was the further clue needed for the construction of a complete table, which for convenience is given here in what is suggested as its final form, omitting the intermediate steps:

Ex 10  
each note b, b<sup>b</sup> or #

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

(NB: Q stands for CH, X for SCH, TS is used for Z, F for PH and T for TH.)

However, the grasp of this key though exciting was at first disappointing, since the chance that it would ever unlock anything seemed exceedingly remote. Evidently each letter may be enciphered at three different pitches; and each note as three different letters. Worse still, the system involves further sources of ambiguity. First, the fact that one note is duplicated, means that that note has six letter equivalents; secondly, all inflected notes are ambiguous (thus E fiat may be either ENV or, as D sharp, CMU) ; and then these two ambiguities in conjunction mean that the two notes adjacent to the finals at either side (*ie* in the table above F#/Gb and G#/Ab) have no fewer than nine possible equivalents each. Finally (and very important) there is in theory no reason why the scale used should not begin and end on any other note, any change of cipher-setting in this way throwing the whole decipherment process out of true. It looked as if the outcome was a complex variable so infinite in its functions that analysis would prove impossible, and any resemblances to actual words could always be written off as coincidental. Much the same thought may have occurred to Schumann himself, in operating a cipher table of this kind; and also to anyone reading this article.

True, there were counter-arguments. First, the necessary interrelation of vowels with consonants will eliminate a certain number of the alternative possibilities; secondly, the cipher-setting, *ie* the note on which the musical scale begins in each case, may turn out to be deducible from some other evidence, such as the pitch. of the Clara: motif already described. But evidently there is; only one practical test of a key: the question was which of the innumerable locks to try it on.

Here I was helped by a conviction known to all Schumann enthusiasts; namely the *singularity* of the music; the sensation it gives of the presence of mystery both latent and patent. Perhaps the puzzle about Clara's name was just one particular aspect of this general quality. Indeed the presence of a cipher might well have the effect of displacing the sense of the music by the observed amount. The instrumental music seemed to offer no fixed point from which to measure. But in the songs there was the objective criterion of the meaning of the words, and this could be compared with the expressive content of the music. This immediately suggested some of the Heine songs, where the two had often seemed frankly at odds. Schumann's literary perceptions were less striking than is commonly believed; but he could not have been as crass about the plain meaning of words as some of these settings suggest. There is an obsessive quality about the way in which the lyrics are forced into expressing emotions obviously not their own that strongly suggests some latent personal and almost extra-musical content. There are certain elements in the musical construction and design that strongly reinforce this impression. Decidedly *Dichterliebe* was the first place to apply the test.

Among these songs perhaps the most perplexing had been *Und wüssten's die Blumen*. In the poem, flowers, nightingales and stars are imaged as comforters in grief. At first the marvellously apt music flutters and twinkles in demisemiquavers over its own mood of minor melancholy, matching poetic with musical imagery to re-create to perfection Heine's mannered and elegant but none the less real despair. Then the poem chills with reality, ending with a comfortless cry for lost love. Schumann's music changes too, but in the opposite sense. The major third and the dominant seventh here are, in his own terms, a *warmer* expression. As this switch breaks contact the strong current of song fails and dies. The following bass line that carries the interest thereafter is never very highly charged and in places curiously powerless. In the postlude the idea changes again, this time to a melodramatic outburst in the vein of *Kreisleriana* No 1; and this too seems artificial and apparently unmotivated. The place to look here then was the last page, beginning with that very singular C# and following the line through. In accordance with the pitch of the Clara motif at "zerrissen mir das Herz", I first transposed the pitch a tone higher. Then the corresponding decipherments were made from the table at Ex 10 and assessed on a basis of linguistic probabilities. After a time it seemed that given patience the cipher could be trained to speak whole sentences even if in a halting and stilted way. To my great pleasure this one appeared to say "I still cry for my Clara; I still grieve even today".

Ex 11a Bass-line

N O CH R U F I CH M E  
I (?NE) C L A R A

Ex 11b Slurred notes

H A B N O CH H E U T D E U I L

After this it would have been uncharitable to complain that where the melodic line passed from bass to treble through the prism of the Clara motif it gets lost for a moment and the ciphering process also breaks down for two letters, the expected *n* and *e* to complete *meine*. But it seemed a pity when Schumann could have filled his word with one tone, that he had not included in his pivot chord the one note that would have served. And curiously enough, it appears from the manuscript that an earlier try at this very passage—the only one that had given him any difficulty—had done just that.

All in all, if this were a game it was a very agreeable one. It was impatience to play another round as well as more musical considerations that dictated as the next choice the very next song in *Dichterliebe*. This is the masterly *Das ist ein Flöten und Geigen*, a song of tormented jealousy, with the Clara motif snaking in green-eyed mockery all over the right hand in a bitter parody of the wedding music at the marriage of the beloved to another. Here the puzzling feature had been the piano's left-hand accents. These are curious in their relation to the words in the first verse; in the second they are bizarre. Suppose they were put there to mark not the beat but the cipher? The idea seemed absurd. However, there was no harm in trying, and again it seemed to work. Here this time is part of the result in detail, to show how it worked, with the suggested cipher letters underlined. The text used was the first edition, taking the accented notes in order. The first two occur in the voice part, the remainder in the accompaniment. In the absence of other evidence the main mode of the Clara cipher, G-G (Ex 10) was again used.

Ex 12

Bot 7 23 25 26 27 28 29 30 31 32 etc

EF HA DG B EF HA CE AB EF C  
NO JK IP L NO JK MN KL NO M  
VW RS QX T VW RS UV ST VW U (Nachtphantom)

Again this was an unfamiliar expression, but not necessarily unauthentic; indeed it sounded quite Schumannian. And there was fun in the idea that his often inexplicable accents were designed to mark the spot where he had hidden his ciphers, as a dog hides a bone; one's heart went out to all the pianists and editors whose bane they have been over the years.

Now only one more kind of musical oddity remained to be tested as a sign of buried cipher, namely the device of superscription. The place to look was the *Davidsbündlertänze*, which had already provided the source of one clue, and where the Clara symbols were at their most resounding.

In the last piece the strokes of midnight are heard in the left hand, according to Schumann's own description, announcing the end of the evening celebrations that the music has in mind. In the first edition this page bears the strange rubric "Eusebius was of the opinion that the following piece was quite superfluous; but great joy shone from his eyes as he said so". Why had he said that? What did it mean? Following the pitch of the Clara motif in the lower voice, the melodies within the double-bar were read a third higher. This yielded a phrase beginning "There was utter stillness..."

Ex 13

E S G A B L A U T (E) R  
SCH W E I G E N  
[C L A R A]

In that imagined silence the twelve low Cs of midnight in the left hand meant, of course, that it was time for Clara to go to bed; and her own simple motto-theme with which the work begins duly takes itself off. It was tempting, though no doubt fanciful, to read this meaning into the warmth of the low piano

register, and the whiteness of the C major chord in which this motto theme finally nestles down. At least, it ought to have been fanciful. But then that final chord of C-E-C when translated into Clara-cipher (Ex 10), firmly said *Bett*. That seemed too good to be true. Coincidence has a long arm; and the thought of all the cureless folly said and written on the subject of ciphers chilled the blood. Reassurance was needed.

I ventured to try the notion on a few friends. All were affable; many, warmly sympathetic. Edward Greenfield asked to see the evidence in detail and kindly went through it with me. I am more than grateful to him for many helpful suggestions, including that of talking the question over with Andrew Porter. He in turn offered practical help. What the suggested cipher needed was objective testimony, and - if possible - the confirmation of external evidence. First he would identify in Schumann an actual passage which had the element of singularity. If it could be explained by the use of the cipher, that would certainly be some indication of an objective reality. Before long he produced the first of the *Fantasiestücke op 12*, dedicated to a young Scots pianist; Anne Laidlaw, the famous *Des Abends*. There was the typical Schumann idiosyncrasy in the way in which the right hand melody, resuming a dozen bars before the end, began with a novel and inexplicable turn of phrase: Could this encipher Laidlaw? But he could not make it quite fit.

First-rate; because in fact these two bars could encipher Laidlaw, and also in fact the encipherment would not quite fit. This might be first because the thrifty Schumann would use the same note, as the rules of his game would entitle him to do, for both the *i* and the *d*; and secondly because her name (wrongly spelled "Laidlav" in the Clara Schumann edition) was wrongly spelled "Laidlar" or perhaps "Laidlah" in the cipher. One could see that the name would perplex a German speaker.

But this, though not discouraging, sounded too much like special pleading to be very helpful as evidence. The next suggestion was still more to the point. Why not try *Papillons*? These pieces, said by Schumann himself to have been inspired by a novel *Die Flegeljahre* (Years of Indiscretion) by his favourite author Jean-Paul Richter, had known connexions between music and text, as shown by numbering and underlinings in his own copy. The facts -are set out in detail by Kathleen Dale in her essay on the piano music (in *Schumann: A Symposium*, ed G. Abraham; Oxford 1952). And some identifiable reference in the cipher to the text of Jean-Paul would be, if not external evidence in the ordinary sense, at least an objective correlative that might serve equally well.

I had left *Papillons* unmolested as a prima facie unlikely source of Clara-cipher; for it was written for the most part when she was only a child-admittedly one of whom Schumann was very fond, but equally one for whom he was not likely yet awhile to start wreathing his melodies into true lovers' knots. However there was no harm in looking to see. It seemed sporting to pursue with the cipher reticule the swiftest moving of all the *Papillons*, No 9, marked *prestissimo*. This relates to a passage of which the words "so mache nur schnell" are underlined in Schumann's own copy. I toyed with these words, admittedly rather half-heartedly, to see if they would emerge from the cipher, and-to my stupefaction-they very nearly did. The answer was to change the cipher-setting from the scale G-G as in Ex 10 above to the scale C-C (corresponding to the C sharp=D flat and C natural tonal centre of Nos 8, 9 and 10) :

Ex 14

This is seemingly so clear that with hindsight we might even offer to deduce from it what actually happened. Schumann could have begun with *so*, which yields the rising fourth shown above, then enciphered the word *mache*, fully intending to incorporate the result somehow in his first complete bar; and then found that it yielded only the bare fifth C-G, which even with added accidentals would be refractory to his purpose. So he would have gone on to see what the further encipherment would yield, written music based on the result, and at the last turned back to insert the first bar in the light of the rest of the completed phrase.

However, the actual result of deciphering for the moment seemed to have created problems rather than solved them. Yet even here there was a simple answer. Granted that this was not the cipher made for Clara, and that nevertheless it was a cipher, it could only be his own. Of course, when one came to think of it, he might always have had one from his very first compositions. When he fell in love with Clara he could have changed it to make a sweet melody and a pretty picture for her name's sake. As luck would have it, he would only have needed to change the top line. And again as luck would have it, that change would not affect the decipherment of the *Papillon* chosen. Nor was it hard to deduce what in that case the original top line would have been; what else than A B C D E F G H? This was accordingly tried on the next passage quoted from Jean Paul, which relates to *Papillon No 6*.

The text is typically far-fetched and evocative. It concerns the style of waltzing of the two heroes, that of Walt the carter (*Fuhrmann*) being described as horizontal (*wagrecht*) and that of Vult the miner (*Bergmann*) as vertical (*senkrecht*), these being their professional proclivities. The relevant German text

runs in part as follows: "teils wagrechte des Fuhr-, teils senkrechte des Bergmanns...". Commentators have, no doubt rightly, found in the opening strains a musical depiction of horizontal movement. On the scale D-D, again following the main key of the piece, the new cipher table yields what may be another hidden idea:

Ex 15

F U H R F U H

Again, the idea of vertical movement has been recognized in the converging chords of the next contrasting section; again; from the cipher table,

Ex 16

B E R G B E R G

So the final cipher discovery turned out to be just the notes of the scale and the letters of the alphabet, in due order; as obvious yet as invisible as air, and, if it had been left alone, as unbreakable. But Clara had revealed its existence; and the hidden cipher had betrayed its own presence. It had done so, it will be recalled, in three main ways. Each was tried again, with *inter alia* the following results:

First; there were the tell-tale signs on the surface where the music was growing in two different colours. Thus, the prelude to Op 24 No 5 is different in kind from the rest of the song. Its melody (at setting G-G because of the presence of the Clara motif at pitch) yields *Braeutigam* (bridegroom).

Then, there was the device of superscription; *hic jacet*. Again the notion of singularity suggests where to look. Two *Carnaval* titles are names of musicians. These pieces make no initial use of the A S C H sphinxes; let us see if they have sphinxes of their own. By the time Op 9 was written Schumann was betrothed to Clara; one would expect to find her cipher. Tried on *Chopin*, setting A (b, it is interesting but hardly conclusive. Tried on *Paganini* it yielded, setting F (minor),

Ex 17

P A N I P A N I

Another device was that of actually marking the spot with accents. For this one would ideally need first editions or even manuscripts. However one could imagine Schumann in a state of such helpless hebetude that he would use this device in conjunction with the second and actually spell out a title in this obvious way. This would suggest the later years. In his final decline he was to take a great interest in table-rapping. But he may have set his own tables rapping somewhat earlier. For example the *Julius Caesar* Overture of 1851 begins, setting A(b),

Ex 18

C A E S A R

And there seems to be a more extended use in another overture of the same year, *Hermann und Dorothea*. Thus, in the first (1857) edition of the composer's own piano duet version, using *only* the accented notes in the *treble* clef, setting F-F (#), the lower mode of the key of B minor, the masculine first subject seems to be asserting that it is

Ex 19a

H E R M A N N

while the feminine second subject, marked *dolce*, shyly admits to being



There are of course other ways of guessing where cipher may be concealed. Thus we might follow up the clue that the *Nachtstücke* op 23 of 1839 were written in a state of extreme depression as Schumann's brother Eduard lay dying - and then notice for example that the main melodic material of the first piece, such as it is, sighs in canon



One of the most fascinating of all sources of clues is the attempt to conceal the evidence. It has often been noted that later editions, including those published in Schumann's lifetime, tend to omit the quirky comments and headings of the first. This change is customarily explained as the result of increasing maturity, and no doubt it was. But the real reason may rather have been increasing caution. An example is in the Intermezzo of the *Novelette* op 21 no 3, originally published separately in 1838 with a quotation from *Macbeth*. "Macbeth" gives, on the tonic scale, two types of possibility, namely



Each is recognizable enough as the source of basic motivic material.

Finally an example of how this process may possibly have worked the other way. Included in the *Album für die Jugend* is the well known and delightful *Erinnerung* (Memory). This was written in 1848. By that time Schumann had withdrawn most of his previous confidences, and he withholds this one; his own first text does not say in memory of whom or of what this piece was written. However, the Clara Schumann edition obligingly tells us that it commemorates the death of Mendelssohn. But might not Schumann have thought to inscribe his name in music in affectionate remembrance? On the tonic (A-A) we could read



If this is indeed what Schumann found, there could be nothing more fitting than this sweet lament fashioned entire from the memory of a dead friend; the articulation of falling fifth and smooth sloping melody seems in every sense to bear Mendelssohn's name.

Just that one example would seem suggestive and singular. Add the dozens mentioned above (and the dozens more for which there is no space here) and some special explanation seems called for. Coincidence may be one. Another may be that a musical cipher has been cracked and its verbal content is leaking.

Let us assume the latter for the sake of argument and anticipate questions about where, when, why and how. The likely source of the idea is evident; after all, Schumann's father was a bookseller and publisher. A search for a possible book disclosed what may well have been the actual book; for Johannes Klüber's *Kryptographik* of 1809 was found to contain a description of both a musical cipher and a three line alphabetical arrangement. Its use as an accessory to composition could have begun as a boyish mystification and then, given Schumann's known temperament and character, become habitual. There are indications that he used it all through his creative life.

Its practical advantages would have been particularly clear in his depressive phases, which were numerous and severe. When the music stopped pouring out it could be ciphered out. And there was the further practical point that this device yielded not only musical material but musical form and structure in ways that were, and remain, wholly original.

The use of a cipher would of course change with the years. It would not only be a question of beginning with a simple basic formula, adapting it to suit Clara's name, and so on; with increasing skill in manipulation would come new conventions and techniques. And then these in turn would add to the already considerable difficulties of decipherment of a system which would not in any case have been intended as a means of communication at all. Among the main difficulties would be the editing of the various texts: Why Schumann should have marked his cipher by accents, if that is what he did, is likely to remain a matter for conjecture. Diaries are traditionally kept in cipher, and certainly his work is intensely personal. Again, his accents, especially in the first editions, are so odd that one might find them more readily explicable as cryptography than as music. Performers are often baffled by them; and editors beginning with Clara Schumann notoriously change and reshuffle them. So the complete solution of a cipher will not be easy or quick - if indeed it is still possible.

The existence of a cipher would of course neither add to nor detract from the musical value of Schumann's work. But in time it could be a unique aid to interpretation and to understanding.

#### Editorial Postscript (Stanley Sadie)

*We hope that many readers will test for themselves the possibilities of the cipher, and communicate their findings for publication, with due acknowledgment, in these pages. Eric Sams's discovery is either true or it isn't; but because the cipher is so flexible, and allows of so many possibilities, the sceptical will be convinced only when so much evidence has been amassed that no one can cry coincidence.*

*May I, after some weeks' ciphering, and much discussion of the subject with various friends, add some personal observations-and so possibly counter in advance a few of the more obvious objections? But first, a practical tip: a simple "cipher kit" can be constructed by copying Ex 10 on to stiff paper, and then dividing the stave from the letter-columns so that the latter can be slid to give any pitch-setting. (A second strip of letter-columns, with the first line reading from A to H, is needed for the pre-Clara compositions.)*

*The very flexibility of the cipher seems to me a strong point in its favour. The fact the National Anthem can be juggled to spell out SCRAM YANKEES, or BULL HIC LATET, or that The Musical Times, ciphered, can be fitted (in A flat) to "And the glory of the Lord", is irrelevant; what matters is that in piece after piece of Schumann's something meaningful seems to emerge. Schumann was a composer: the fact that he occasionally "cheated" to produce a better musical result again seems to me a strong point in the cipher's favour.*

*What appeals to me most of all is that Mr Sams's proposed cipher emerged, unforced, as the solution to three things which must puzzle all those who study Schumann: the lack of a motif signifying "Clara"; the singularities in the music which suggest an extra-musical origin; and Schumann's repeated references to hidden meanings in various pieces: Fiddling with the cipher, pretending I am Schumann about to compose something, I find too how readily, how helpfully it starts up musical ideas. And then, given the cast of his mind, and the nature of his music, it all seems so probable..*

Eric Sams offers these suggestions for further exploration:

Cryptic Accents (as in Ex 12): Opp 1\* 2\*, 6, 8\*, 9, 12, 13, 15, 16, 17, 24, 25, 48 and 95

Literary Sources (as in Exx 14-16): Opp 2, 16, 66, 133 .

Names, Titles and Epigraphs† (as in Exx 20-22): Opp 6, 9, 12, 17, 25, 68, 83

\* for these, and perhaps for some other early piano works, the "pre-Clara" cipher should be used.

†Kathleen Dale's essay, op cit, provides valuable information to use in connection with the piano music.