

If *all* instrumental parts were to carry out fast, short repeated figures over a large pitch range, an even larger and fuller spatial effect would be created. The effect might be comparable to the 'smiling countryside' in Ravel's *Daphnis et Chloë* at the first climax (fully risen sun) or with the 'grandiose apotheosis full of light' described by Francès' respondents in reference to Respighi's *La Fontana di Trevi al meriggio* (ex. 82).³⁷¹ Indeed, as the hypothetical substitution of example 83 shows, the Kojak theme's museme 2b would be radically changed if it were spread over the full range of just the string parts in a manner resembling that of Respighi's fountain.

The last two comparative examples (81, 82), share one common paramusical denominator: strong sunlight. Now, the question of light, which we shall call luminosity in order to distinguish between light (not dark) and light (not heavy), is of importance to our analysis. Dark environments generally seem to require low musical pitch (black clothes and funeral marches), an observation which can be supported by comparing the example 82 and its paramusical concomitants — a large, gushing fountain in the strong, noonday sun³⁷¹ — with the same composer's 'Pini presso una catacomba' (ex. 84).

Ex. 82. Respighi (1916): *Fontana di Roma* (p.46, b.1, ff.) – *La fontana di Trevi al Meriggio*.

The musical score for Ex. 82, Respighi's *Fontana di Roma* (La fontana di Trevi al Meriggio), is presented in a full orchestral score format. The tempo is marked 'Larghissimo' with a quarter note equal to 60. The score includes parts for piccolo, flute, oboe, cor Anglais, clarinet 1 and 2, bassoon, cor, trumpet, trombone, timpani, cymbal, harp, piano, organ, violin 1 and 2, viola, violoncello, and double bass. The score shows two measures of music for each instrument, with various dynamics like 'fff' and 'rit.' indicated.

371. According to our dictionaries (see ftnt 329, p.157), *meriggio* does not only mean 12 o'clock (midday), but also noonday, noonday sun and noonday heat (cf. expression *stare al meriggio*, meaning to rest in the shade from the light and heat). We are in other words dealing with another type of sun than those of Stravinsky's February St. Petersburg and Ravel's rural spring morning in France. See also ex.81 and Ravel's comments (ftnt.370: 'le jour se lève', etc.) and the results of Francès' experiments: 'paysage riant', etc. (ftnt.366).

Ex. 83. (HS) Kojak: museme 2b spread over wide pitch range (2) in *all* string parts.

Ex. 84. Respighi (1924): *Pini di Roma* (at figure 10) – 'Pini presso una catacomba'.

Of course, other musical parameters, such as dynamics and tempo are important in the portrayal of dark, sombre environments as well as bright ones, but pitch, range and harmony are of equal importance. Our observations on the general correspondence of low pitch to darkness should require no further exemplification after these two well-known quotations (ex. 85).

Ex. 85. Funeral marches at low pitch.³⁷²

a) Beethoven (1804): Symphony no. 3, 2nd. mvt.

b) Chopin (1839): Marche funèbre

Having stated the basic difference between musical brightness and darkness, we should try and determine what type of luminosity is being expressed in museme 2b. It should be clear, for example, that a constant, hot, intensive Mediterranean noon-day sun, as experienced near a gushing fountain in the middle of an Italian metropolis, should require different musical treatment to the early morning sun in the delicate stillness of the French countryside (ex. 81, 82). Tremolo figures at different

372. Beethoven (1804:64, b.1-4). Chopin (1829), b.3-4 (quoted from memory).

itches and/or over varying ranges (see fig. 8, p.148), but still in consonant relation to each other and to the basic harmonies occur in both examples.³⁷³ The same is true of the cold, bright February sun in a St. Petersburg market place (ex. 71, p.170). However, the midday sun in Rome is played *fff* by all instruments (including a constant first inversion of a D major fistful on full organ and heroic brass fanfare motifs)³⁷⁴ over a range of five octaves and a minor third, covering all possible stations of the D major triad from \sharp^2 (double bass and organ at 16 or 32 feet) to a held a^6 in the piccolo part); even individual instruments cover several octaves with their gushing arpeggio figures. This is clearly not the type of luminosity we are dealing with in the Kojak theme, nor is it the type of light we find in the static, *forte* D major pentatonic sonorities of harp glissandi, piccolo and flute bird calls and the highly indistinct babbling of woodwind and violins at twelve demisemiquavers to the crotchet.³⁷⁵ The luminosity of the Kojak ostinato m2b has more in common with the cold February sun of the Stravinsky example (71, p.170), not only because of the similarities between the quartal harmonies of both pieces but also because of the pitch, range and relative dynamics in the Kojak theme and at the opening of *Pétrouchka*. Moreover if we refer to our trills, tremolos and ostinati of fire (ex. 50-53) we will also find these played at a similar rate, range, pitch and volume to the Moog's violin-like ostinato m2b.

Figure 9 shows which of our IOCM is most similar to museme 2b under analysis. The basic argument is that the more structural traits the pieces of IOCM exhibit in common with museme 2b, the more likely m2b is to be associated with the paramusical concomitants of those pieces of IOCM. The encoding of structural information in the table's eight right columns is explained below.

Explanation of figure 9

Structural trait	Explanation
pitch range	H = high, M = medium, L=low, full = full range
tremolo type	A=arpeggio, O=ostinato, R=reiteration, S=sequence, T=tremolando
dynamic	<i>ff, f, mf, mp, p, pp</i> as usual; <> = varied by <i>cresc.</i> and <i>dim.</i>
pulse	metronome marking; ? = uncertain or approximate
notes per beat	number of notes in figure within the duration of one pulse beat
surface rate	number of notes in figure occurring within one minute
consonant/dissonant	C = consonant, D = dissonant, acc. to the current tonal idiom
tonal language	PB = pre-baroque, B = baroque, ER = early romantic, R = romantic, I = impressionist, MA = modern art music

373. The harmonies are D_{add6} in the Ravel example, D (first inversion) in the Respighi.

374. See §6.2. and Francès (1958:281, 294, 353). 'Le thème guerrière exposé et répété plusieurs fois par les trompettes et trombones doit toute son efficacité aux timbres des *cuivres*. Quel que soit l'effet de la dynamique, on ne comprendrait pas autrement que le fragment suscite un si grand nombre de réponses rangées dans les thèmes d'évocation suivants: 1.Héroïsme, victoire, 2.Solennité, apothéose, éclat, 3.Départ au combat, chevauchée, chasse' (p.353).

375. Birds are particularly prominent in piccolo and flute parts at and around figure 157. See also Ravel's comment 'on perçoit des chants d'oiseaux' at figure 156. The impression is also indistinct due to (1) the 'contesting' nature of the main fast ostinati, (2) the acoustics, (3) the amount of other parts (see the discussion around ex. 64, p.166).

Fig. 9. Musical/structural traits and connotations of tremol[and]o figures

ex. no.	Composer	Work	Paramusical concomitants	Pitch range	Trem. type	Dynamic	Pulse	Notes/beat	Surface rate	Con-/disson.	Tonal lang.
43	Monteverdi	<i>Tancredi e Clo.</i>	fight, anger	M	R	<i>f</i>	116	4	464	C	B
45	Stravinsky	<i>Oedipus Rex</i>	fright, terror, threat	L	T	<i>f</i>	50	7 16	350 800	D	MA
46	Stravinsky	<i>Pétrouchka</i>	despair	M	T	<i>m</i>	76	8	608	D	MA
47	Berlioz	<i>Roméo & J. (1)</i>	expectation, nervousness	ML	T	<>	88?	8?	704?	D	R
48	Berlioz	<i>Roméo & J. (2)</i>	love, passion	ML	T	<>	88?	8?	704?	C	R
44	Debussy	<i>Pelléas et Mélis.</i>	doubt, confusion, insecurity	M	T	<i>pp</i> <>	80?	8	640	D	I
49	Purcell	<i>King Arthur</i>	cold	HM	S	?	100?	4	400	D	B
50	Wilbye	(<i>madrigal</i>)	fire, love, dart, eye	HM	S	?	100?	4	400	C	PB
51	Händel	<i>Passion (1716)</i>	fire (chastise)	M	S	<i>f?</i>	100?	4	400	?	B
52	Händel	<i>Messiah</i>	fire (purge, refine)	HM	AS		138	4	552	C	B
53	Stravinsky	<i>Firebird Suite</i>	fire	H	TS	<i>f</i>	152	4	608	D	MA
54	Schubert	<i>Wohin?</i>	babbling brook, wandering	M	A	<i>mf</i>	100	?	600	C	ER
55	Schubert	<i>Erlkönig</i>	gallop, fear, terror, threat	ML	R	<i>f</i>	152	3	456	D	ER
56	Schubert	<i>Gretchen am ...</i>	spinning wheel, bitterness	M	A	<i>pp</i>	72	6	432	D	ER
57	Sibelius	<i>Pelleas & Melis.</i>	spinning wheel, bitterness	M	O	<i>mf</i>	96	6	576	D	R
58	Berlioz	<i>Prise de Troie (1)</i>	crowd, big space, activity	H	R	<i>f</i>	138	3	414	C	R
59	Berlioz	<i>Prise de Troie (2)</i>	worry, premonition, fear	ML	T	<>	90?	8	720	D	R
60	Berlioz	<i>Troyens à C. (1)</i>	impatient destiny	H	R	<i>f</i>	140	4	560	D	R
60	Berlioz	<i>Troyens à C. (2)</i>	worry, death, infidelity	ML	T	<i>f</i>	140	4	560	?	R
61	Berlioz	<i>Troyens à C. (3)</i>	people, activity, hope	H	R	<i>f</i>	140	4	560	C	R
62	Berlioz	<i>Troyens à C. (4)</i>	approaching thunder	L	T	<i>ff</i> >	140	?	560?	§	R
63	J.S. Bach	<i>Matthew Passn.</i>	earthquake, threat	L	R	<i>f</i>	80?	8	640?	D	B
64	Ravel	<i>Daphnis et Chloë</i>	trickling water, dew, smiling countryside, early morning	HM	AS	<i>pp</i>	50	12 18	600 900	C D	I
65	Hindemith	<i>Mathis der M.</i>	devils, hell fire, temptation	H	R	<i>f</i>	176	3	528	D	MA
66	Rózsa	<i>Julius Cæsar (1)</i>	nightmare, worry, threat	full	T	<i>p</i>	140	4	560	D	MA
68	Bernstein	<i>West Side Story</i>	piercing of ear, violence	H	T	<i>ff</i>	116?	8?	928?	D	MA
69	Händel	<i>Solomon</i>	people, activity, light, happy	H	AS	<i>f</i>	126	4	504	C	B
70	Debussy	<i>Nocturnes</i>	light, happy activity	H	R	<i>f</i>	164?	3	492	C	I
71	Stravinsky	<i>Pétrouchka</i>	people, activity, light, cold, happy	HM	O AS	<i>mf</i>	138	4	552	C	MA
75	Rózsa	<i>Julius Cæsar (2)</i>	impending murder, threat	L	O	<>	116?	3	348	D	MA
76	Gershwin	<i>Porgy & Bess</i>	fear, threat, impending fight	L	T	<i>f</i>	168	4?	672?	D	MA
78	J.S. Bach	<i>John Passion</i>	sadness, pain, many people	M	S	?	80?	4	320?	D	B
80	Ravel	<i>Daphnis & Chloë</i>	night, mystery, large space	full	T	<i>ppp</i>	72	8	576	D	I
81	Ravel	<i>Daphnis & Chloë</i>	full sunrise, light, smiling countryside	full	AS	<i>f</i>	50	12 18	600 900	C	I
82	Respighi	<i>Fontana di Trevi al meriggio</i>	noonday sun, light, heat, gushing fountain, people, grandiose apotheosis	full	A	<i>fff</i>	80	3 4 5	240 320 400	C	I
	Goldenberg	<i>Kojak theme</i>	?	H	all	<i>f</i>	134	4	536	C	MA

If, for example, we cut down the size of the comparative material to those examples sharing a similar pitch range to museme 2b, the following eleven examples remain:

ex. no.	Composer	Work	Paramusical concomitants	Trem.	Dynam.	Pulse	Notes/min.	Con-/disson.
50	Wilbye	(madrigal)	fire, etc.	S	?	100	400	C
52	Händel	Messiah	fire (purge, refine)	AS	<i>f</i>	138	552	C
53	Stravinsky	Firebird Suite	fire	TS	<i>f</i>	152	608	D
58	Berlioz	Prise de Troie (1)	happy crowd, big space, activity	R	<i>f</i>	138	414	C
60	Berlioz	Troyens à C. (1)	impatient destiny	R	<i>f</i>	140	560	D
64	Ravel	Daphnis et Chloë	trickling water, dew, smiling countryside, early morning	AS	<i>pp</i>	50	750	C
65	Hindemith	Mathis der M.	devils, hell fire, temptation	R	<i>f</i>	176	528	D
68	Bernstein	West Side Story	piercing of ear, violence	T	<i>ff</i>	116	928	D
69	Händel	Solomon	people, activity, light, happy	AS	<i>f</i>	126	504	C
70	Debussy	Nocturnes	light, happy activity	R	<i>f</i>	164	492	C
71	Stravinsky	Pétrouchka	people, activity, light, cold, happy	OAS	<i>mf</i>	138	552	C

Of the above examples we may exclude no. 64 (Ravel) because its dynamics (*pp*), tempo ($\text{♩}=50$), and surface rate (600-900) are all quite different from those of m2b. We may also exclude the dissonant examples (53, 60, 65, 66) since the Kojak tremolo figure is so clearly consonant in the context of its tonal idiom. We are now left with examples 50, 52, 58, 69, 70 and 71 whose combined paramusical concomitants are *fire* (ex. 50, 52), *people, activity, joy* (ex. 58, 69, 70, 71), *light* (69, 70, 71 — also 50 and 52 since fire is by definition light) and *cold* (ex. 71). As can be seen from the bold type in the table above (indicating items of greatest structural similarity to m2b) these pieces of IOCM are most likely to provide us with paramusical concomitants of relevance to the understanding of the Kojak museme. Indeed, if we were to test the relevance of our interobjective comparison material even further by also considering number of notes per beat and tonal language as determining criteria, only one example would remain: the opening bars of Stravinsky's *Pétrouchka*.

From the discussions, comparisons, substitutions and examples above we may firstly conclude that ideas of luminosity and activity are to be found in the museme whose affective meaning we have sought to analyse. The luminosity we are speaking of should not be regarded as constant, blinding light, but as *quivering* ('tremble or vibrate with slight, rapid motion'), i.e. perceptible as *quick, light, small, generally tremulous movements* (like pattering, tinkling, trickling, rustling, rippling, crackling) but transferred from the realm of sound into vision, becoming *shimmering* ('tremulous or faint diffused light'), *glittering* ('shining with bright, tremulous light') and *sparkling* ('remitting or reflecting successive small flashes, bright with shifting points of light').³⁷⁶

We shall therefore conclude this section by stating what we have found to be the main affective properties of Kojak museme 2b: *general, constant, bustling activity, agitated and insistent but positive, pleasant, vibrant, shimmering and luminous*.

376. Definitions in brackets from *The Pocket Oxford Dictionary*.