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METHODS OF MONTAGE

In every art and every discovery, experience has always preceded precepts. In the course of time, a method has been assigned to the practice of the invention.

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IS THE method of overtone montage unrelated to our previous experience, artificially grafted onto cinematography, or is it simply a quantitative accumulation of one attribute that makes a dialectic leap and begins to function as a new qualitative attribute?

In other words, is overtone montage a dialectical stage of development within the development of the whole montage system of methods, standing in a successive relation to other forms of montage?

These are the formal categories of montage that we know:

1. Metric Montage

The fundamental criterion for this construction is the *absolute lengths* of the pieces. The pieces are joined together according to their lengths, in a formula-scheme corresponding to a measure of music. Realization is in the repetition of these "measures."

Tension is obtained by the effect of mechanical acceleration by shortening the pieces while preserving the original proportions of the formula. Primitive of the method: three-quarter-time, march-time, waltz-time ($\frac{3}{4}$, $\frac{2}{4}$, $\frac{1}{4}$, etc.), used by Kuleshov; degeneration of the method: metric montage using a measure of complicated irregularity ($\frac{16}{17}$, $\frac{22}{57}$, etc.).

Such a measure ceases to have a physiological effect, for it is contrary to the "law of simple numbers" (relationships).

Simple relationships, giving a clarity of impression, are for this reason necessary for maximum effectiveness. They are therefore found in healthy classics of every field: architecture; the color in a painting; a complex composition by Scriabin (always crystal clear in the relations between its parts); geometrical *mises-en-scène*; precise state planning, etc.

A similar example may be found in Vertov's *Eleventh Year*, where the metric beat is mathematically so complex that it is only "with a ruler" that one can discover the proportional law that governs it. Not by *impression* as perceived, but by *measurement*.

I do not mean to imply that the beat should be recognizable as part of the perceived impression. On the contrary. Though unrecognized, it is nevertheless indispensable for the "organization" of the sensual impression. Its clarity can bring into unison the "pulsing" of the film and the "pulsing" of the audience. Without such a unison (obtainable by many means) there can be no contact between the two.

Over-complexity of the metric beat produces a chaos of impressions, instead of a distinct emotional tension.

A third use of metric montage lies between its two extremes of simplicity and complexity: alternating two varying piece-lengths according to two kinds of content within the pieces. Examples: the sequence of the *lezginka* in *October* and the patriotic demonstration in *The End of St. Petersburg*. (The latter example can be considered as classic in the field of *purely metric* montage.)

In this type of metric montage the content within the frame of the piece is subordinated to the absolute length of the piece. Therefore, only the broadly dominant content-character of the piece is regarded; these would be "synonymous" shots.

2. Rhythmic Montage

Here, in determining the lengths of the pieces, the content within the frame is a factor possessing equal rights to consideration.

Abstract determination of the piece-lengths gives way to a flexible relationship of the *actual* lengths.

Here the actual length does not coincide with the mathematically determined length of the piece according to a metric formula. Here its practical length derives from the specifics of the piece, and from its planned length according to the structure of the sequence.

It is quite possible here to find cases of complete metric *identity* of the pieces and their rhythmic measures, obtained through a combination of the pieces according to their content.

Formal tension by acceleration is obtained here by shortening the pieces not only in accordance with the fundamental plan, but also by violating this plan. The most affective violation is by the introduction of material more intense in an easily distinguished tempo.

The "Odessa steps" sequence in *Potemkin* is a clear example of this. In this the rhythmic drum of the soldiers' feet as they descend the steps violates all *metrical* demands. Unsynchronized with the beat of the cutting, this drumming comes in *off-beat* each time, and the shot itself is entirely different in its solution with each of these appearances. The final pull of tension is supplied by the transfer from the rhythm of the descending feet to another rhythm—a new kind of downward movement—the next intensity level of the same activity—the baby-carriage rolling down the steps. The carriage functions as a directly progressing accelerator of the advancing feet. The stepping descent passes into a rolling descent.

Contrast this with the above example from *The End of St. Petersburg*, where intensity is gained by cutting *each and every piece* to its required minimum within the single metric measure.

Such metrical montage is perfectly suitable for similarly simple march-time solutions. But it is inadequate for more complex rhythmic needs.

When it is forcibly applied to such a problem, we find montage failure. This explains such an unsuccessful sequence as that of the religious mask dance in *Storm Over Asia*. Exe-

cuted on the basis of a complex metrical beat, unadjusted to the specific content of the pieces, this neither reproduces the rhythm of the original ceremony nor organizes a cinematically affective rhythm.

In most cases of this sort, nothing more than perplexity is excited in the specialist, and nothing more than a confused impression is aroused in the lay spectator. (Although an artificial crutch of musical accompaniment may give some support to such a shaky sequence—as it did in the cited example—the basic weakness is still present.)

3. Tonal Montage

This term is employed for the first time. It expresses a stage beyond rhythmic montage.

In rhythmic montage it is movement within the frame that impels the montage movement from frame to frame. Such movements within the frame may be of objects in motion, or of the spectator's eye directed along the lines of some immobile object.

In tonal montage, movement is perceived in a wider sense. The concept of movement embraces *all affects* of the montage piece. Here montage is based on the characteristic *emotional sound* of the piece—of its dominant. The general *tone* of the piece.

I do not mean to say that the emotional sound of the piece is to be measured "impressionistically." The piece's characteristics in this respect can be measured with as much exactitude as in the most elementary case of "by the ruler" measurement in metrical montage. But the units of measurement differ. And the amounts to be measured are different.

For example, the degree of light vibration in a piece cannot only be gauged by a selenium light-element, but every gradation of this vibration is perceptible to the naked eye. If we give the comparative and emotional designation of "more gloomy" to a piece, we can also find for the piece a mathematical co-efficient for its degree of illumination. This is a

case of "light tonality." Or, if the piece is described as having a "shrill sound," it is possible to find, behind this description, the many acutely angled elements within the frame, in comparison with other shape-elements. This is a case of "graphic tonality."

Working with combinations of varying degrees of soft-focus or varying degrees of "shrillness" would be a typical use of tonal montage.

As I have said, this would be based on the *dominant* emotional sound of the pieces. An example: the "fog sequence" in *Potemkin* (preceding the mass mourning over the body of Vakulinchuk). Here the montage was based exclusively on the emotional "sound" of the pieces—on rhythmic vibrations that do not affect spatial alterations. In this example it is interesting that, alongside the basic tonal dominant, a secondary, accessory *rhythmic* dominant is also operating. This links the tonal construction of the scene with the tradition of rhythmic montage, the furthest development of which is tonal montage. And, like rhythmic montage, this is also a special variation of metric montage.

This secondary dominant is expressed in barely perceptible changing movements: the agitation of the water; the slight rocking of the anchored vessels and buoys; the slowly ascending vapor; the sea-gulls settling gently onto the water.

Strictly speaking, these too are elements of a *tonal* order. These are movements that move according to tonal rather than to spatial-rhythmic characteristics. Here spatially immeasurable changes are combined according to their emotional sound. But the chief indicator for the assembly of the pieces was according to their basic element—optical light-vibrations (varying degrees of "haze" and "luminosity"). And the organization of these vibrations reveals a complete identity with a minor harmony in music. Moreover, this example furnishes a demonstration of consonance in combining movement as *change* and movement as *light-vibration*.

Increased tension in this level of montage, too, is produced by an intensification of the same "musical" dominant. An espe-

cially clear example of such intensification is furnished by the sequence of the delayed harvest in *Old and New*. The construction of this film as a whole, as in this particular sequence, adheres to a basic constructive process. Namely: a conflict between *story* and its *traditional form*.

Emotive structures applied to non-emotional material. The stimulus is transferred from its usual use as situation (for example, as eroticism is usually used in films) to structures paradoxical in tone. When "the pillar of industry" is finally discovered—it is a typewriter. The hero bull and heroine cow are happily wed. It is not the Holy Grail that inspires both doubt and ecstasy—but a cream-separator.*

Therefore, the thematic *minor* of the harvesting is resolved by the thematic *major* of the tempest, of the rain. Yes, and even the stacked harvest, itself—traditional major theme of fecundity basking in the sun—is a resolution of the minor theme, wetted as it is by the rain.

Here the increase of tension proceeds by internal reinforcement of a relentless dominant chord—by the growing feeling within the piece of "oppression before the storm."

As in the preceding example, the tonal dominant—movement as light-vibration—is accompanied by a secondary rhythmic dominant, i.e., movement as change.

Here it is expressed in the growing violence of the wind, embodied in a transfer from currents of air to torrents of rain—a definite analogy with the transfer from the downward steps to the downward rolling carriage.

In general structure the wind-rain element in relation to the dominant can be identified with the bond in the first example (the harbor mists) between its rhythmic rockings and its

* There was even a parallel with the ironic conclusion of *A Woman of Paris* in the original end planned for *Old and New*. This is, by the way, a film unique in the number of references (both in story and in style) to other films: the "pillar of industry" sequence playfully builds its satire on a similar but serious episode in Pudovkin's *End of St. Petersburg*; the tractor's final triumph is an inflated parody of a Wild West film chase, etc. Even Buster Keaton's *Three Ages* was consciously reflected in the original structure of *Old and New*.—EDITOR.

reticular afocality. Actually, the character of the inter-relation is quite different. In contrast with the consonance of the first example, we have here the reverse.

The gathering the skies into a black, threatening mass is contrasted with the intensifying dynamic force of the wind, and the solidification implied in the transition from currents of air to torrents of water is intensified by the dynamically blown petticoats and the scattering sheaves of the harvest.

Here a collision of tendencies—an intensification of the static and an intensification of the dynamic—gives us a clear example of dissonance in tonal montage construction.

From the viewpoint of emotional impression, the harvest sequence exemplifies the tragic (active) minor, in distinction from the lyrical (passive) minor of the harbor fog sequence.

It is interesting that in both examples the montage grows with the increasing change of its basic element—*color*: in the “harbor” from dark gray to misty white (life analogy—the dawn); in the “harvest” from light gray to leaden black (life analogy—the approach of crisis). I.e., along a line of light vibrations increasing in frequency in the one case, and diminishing in frequency in the other.

A construction in simple metrics has been elevated to a new category of movement—a category of higher significance.

This brings us to a category of montage that we may justly name:

4. *Overtonal Montage*

In my opinion, overtonal montage (as described in the preceding essay) is organically the furthest development along the line of tonal montage. As I have indicated, it is distinguishable from tonal montage by the collective calculation of all the piece's appeals.

This characteristic steps up the impression from a melodically emotional coloring to a directly physiological perception. This, too, represents a level related to the preceding levels.

These four categories are *methods* of montage. They become montage *constructions* proper when they enter into relations of conflict with each other—as in the examples cited.

Within a scheme of mutual relations, echoing and conflicting with one another, they move to a more and more strongly defined type of montage, each one organically growing from the other.

Thus the transition from metrics to rhythmic came about in the conflict between the length of the shot and the movement within the frame.

Tonal montage grows out of the conflict between the rhythmic and tonal principles of the piece.

And finally—overtonal montage, from the conflict between the principal tone of the piece (its dominant) and the overtone.

These considerations provide, in the first place, an interesting criterion for the appreciation of montage-construction from a “pictorial” point of view. Pictorialism is here contrasted with “cinematicism,” esthetic pictorialism with physiological reality.

To argue about the pictorialism of the film-shot is naive. This is typical of persons possessing a decent esthetic culture that has never been logically applied to films. To this kind of thinking belong, for instance, the remarks on cinema coming from Kasimir Malevich.* The veriest novice in films would not think of analyzing the film-shot from an identical point of view with landscape painting.

The following may be observed as a criterion of the “pictorialism” of the montage-construction in the broadest sense: the conflict must be resolved *within* one or another category of montage, without allowing the conflict to be one of differing categories of montage.

Real cinematography begins only with the collision of various cinematic modifications of movement and vibration. For example, the “pictorial” conflict of figure and horizon (whether this is a conflict in statics or dynamics is unimportant). Or the alternation of differently lit pieces solely from

* The founder of the Suprematist school of painting had delivered some commonplaces about the “photographic” and naturalistic limitations of the cinema.—EDITOR.

the viewpoint of conflicting light-vibrations, or of a conflict between the form of an object and its illumination, etc.

We must also define what characterizes the effect of the various forms of montage on the psycho-physiological complex of the person on the perceiving end.

The first, metric category is characterized by a rude motive force. It is capable of impelling the spectator to reproduce the perceived action, outwardly. For example, the mowing contest in *Old and New* is cut in this way. The different pieces are "synonymous"—containing a single mowing movement from one side of the frame to the other; and I laughed when I saw the more impressionable members of the audience quietly rocking from side to side at an increasing rate of speed as the pieces were accelerated by shortening. The effect was the same as that of a percussion and brass band playing a simple march tune.

I have designated the second category as rhythmic. It might also be called primitive-emotive. Here the movement is more subtly calculated, for though emotion is also a result of movement, it is movement that is not merely primitive external change.

The third category—tonal—might also be called melodic-emotive. Here movement, already ceasing to be simple change in the second case, passes over distinctly into an emotive vibration of a still higher order.

The fourth category—a fresh flood of pure physiologism, as it were—echoes, in the highest degree of intensity, the first category, again acquiring a degree of intensification by direct motive force.

In music this is explained by the fact that, from the moment that overtones can be heard parallel with the basic sound, there also can be sensed vibrations, oscillations that cease to impress as tones, but rather as purely physical displacements of the perceived impression. This particularly refers to strongly pronounced timbre instruments with a great preponderance of the overtone principle. The sensation of physical displacement is

sometimes also literally achieved: chimes, organ, very large Turkish drums, etc.

In some sequences *Old and New* succeeds in effecting junctions of the tonal and overtone lines. Sometimes they even collide with the metric and rhythmic lines, as well. As in the various "tangles" of the religious procession: those who fall on their knees beneath the ikons, the candles that melt, the gasps of ecstasy, etc.

It is interesting to note that, in selecting the pieces for the montage of this sequence, we unconsciously furnished ourselves with proof of an essential equality between rhythm and tone, establishing this gradational unity much as I had previously established a gradational unity between the concepts of shot and montage.

Thus, tone is a level of rhythm.

For the benefit of those who are alarmed by such reductions to a common denominator, and the extension of the properties of one level into another for purposes of investigation and methodology, I recall Lenin's synopsis of the fundamental elements of Hegelian dialectics:

These elements may be presented in a more detailed way thus: . . .

- 10) an endless process of revealing *new* aspects, relationships, etc.
- 11) an endless process of deepening human perception of things, appearances, processes and so on, from appearance to essence and from the less profound to the more profound essence.
- 12) from co-existence to causality and from one form of connection and interdependence to another, deeper, more general.
- 13) recurrence, on the highest level, of known traits, attributes, etc. of the lowest, and
- 14) return, so to say, to the old (negation of the negation) . . .²

After this quotation, I wish to define the following category of montage—a still higher category:

5. Intellectual Montage

Intellectual montage is montage not of generally physiological overtone sounds, but of sounds and overtones of an intellectual sort: i.e., conflict-juxtaposition of accompanying intellectual affects.

The gradational quality is here determined by the fact that there is no difference in principle between the motion of a man rocking under the influence of elementary metric montage (see above) and the intellectual process within it, for the intellectual process is the same agitation, but in the dominion of the higher nerve-centers.

And if, in the cited instance, under the influence of "jazz montage," one's hands and knees rhythmically tremble, in the second case such a trembling, under the influence of a different degree of intellectual appeal, occurs in identically the same way through the tissues of the higher nerve systems of the thought apparatus.

Though, judged as "phenomena" (appearances), they seem in fact different, yet from the point of view of "essence" (process), they are undoubtedly identical.

Applying the experience of work along lower lines to categories of a higher order, this affords the possibility of carrying the attack into the very heart of things and phenomena. Thus, the fifth category is the intellectual overtone.

An example of this can be found in the sequence of the "gods" in *October*, where all the conditions for their comparison are made dependent on an exclusively class-intellectual sound of each piece in its relation to God. I say class, for though the emotional principle is universally human, the intellectual principle is profoundly tinged by class. These pieces were assembled in accordance with a descending intellectual scale—pulling back the concept of God to its origins, forcing the spectator to perceive this "progress" intellectually.*

* A portion of this sequence (omitted from most of the American prints of *Ten Days That Shook the World*) is reproduced in the section of photographs between pages 52 and 53.

But this, of course, is not yet the intellectual cinema, which I have been announcing for some years! The intellectual cinema will be that which resolves the conflict-juxtaposition of the physiological and intellectual overtones. Building a completely new form of cinematography—the realization of revolution in the general history of culture; building a synthesis of science, art, and class militancy.

In my opinion, the question of the overtone is of vast significance for our film future. All the more attentively should we study its methodology and conduct investigation into it.

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