The Hierarchical Subordination of Subdisciplines of Versology

The isophonic organisation of verse is a superstructure that arches over underlying language structures serving as its base. The natural tectonics of linguistic units was described in Table 25 and poetic tectonics is devised as its extension and derivation. The linguistic hierarchy of levels divides sentence structures into sounds, syllables, morphemes, lexemes, clauses and sentences. The prosodic hierarchy of verse units divides poems into feet, metres, dipodies, stichs and strophes. Traditional poetics discerns thousands of their types of varieties but pays little heed to the structuring of their subsystems.

This theoretical chaos provides a good reason for their subtle typological subdivision. The first prerequisite is to distinguish linguistic tectonics from the corresponding prosaic, rhetorical and musical hierarchy. The poetic hierarchy is positioned between rhetorical and musical tectonics, so its systematics should be built up in close relation to their layout. Every level has to be modelled and assigned as an independent self-contained algebra and every algebra ought to be incorporated into a system of its higher extensions. Modern universal algebras fail to provide a suitable term so we propose to denote them as 'corpoids'[1].

Generally speaking, a **corpoid** is an ascending series of algebras uniting additive and multiplicative groups with an infinite series of exponentiation operations. If we add a to a and carry out his operation n times, we get the product $a \times n$. If we multiply $a \times a$ n-times, we obtain the nth power of a written as $a \times a \times ... \times a = a^n$. Such chains of operations form finite or infinite series of algebraic systems. Moreover, such procedures make it possible to enumerate and generate sets of natural, whole, rational, algebraic and transcendental numbers. The smallest units of poetic tectonics are sounds and syllable combining into metres and feet. An analogous unit of musical tectonics is found in **measure** (in British usage it is 'bar') defined as sequence of beats enclosed in one segment of time. In written key notation it is separated by a vertical bar $|$. Poetic, rhetorical and musical tectonics generally coincides with lexical and syntactic units and the natural structuring of language. However, this golden rule is often broken and poetic phrasing exhibits different subdivisions.

In the following outline of prosodic levels we presuppose that each of them represents an algebraic system

$$A_{i+1} = [A_i, +, -] \, ,$$

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[1] Pavel Bělíček, Tomáš Bělíček: *A Systematic Survey of Theoretical Mathematics*. Prague 2009.

where + is concatenation, – is decatenation, A_i is a generating input of a higher system A_{i+1}. In Table 47 this interrelation is recorded by a special notation

$$[A_i, +, -] \rightarrow A_{i+1}.$$

We point out differences by switching from Latin majuscule to Greek letters.

Phonetics $[A,+,-] = F$ composes phonemes from acoustic features in A.
Syllabics $[F,+,-] = Y$ composes syllables from single phonemes in F.
Prosodics $[Y,+,-] = P$ composes prosodemes from syllables in S.
Podics $[P,+,-] = \Pi$ composes feet from prosodemes in P.
Metrics $[\Pi,+,-] = \Gamma$ composes metres from feet in Π.
Stichics $[\Gamma,+,-] = \Omega$ composes stichs (verse lines) from metres in Γ.
Strophics $[\Omega,+,-] = \Sigma$ composes strophes from stichs in Ω.
Poetics $[\Sigma,+,-] = \Delta$ composes poems from various strophes in Σ.

$$E \rightarrow F \rightarrow Y \rightarrow P \rightarrow \Pi \rightarrow \Gamma \rightarrow \Omega \rightarrow \Sigma \rightarrow \Delta$$
$$[E,+] \rightarrow F$$
$$[F,+] \rightarrow Y$$
$$[Y,+] \rightarrow P$$
$$[P,+] \rightarrow \Pi$$
$$[\Pi,+] \rightarrow \Gamma$$
$$[\Gamma,+] \rightarrow \Omega$$
$$[\Omega,+] \rightarrow \Sigma$$
$$[\Sigma,+] \rightarrow \Delta$$

phonetics syllabics prosodics podics metrics stichics strophics poetics

Table 1. *The hierarchy of poetic tectonics and fields of versology*

The requirement of systematic ordering is fulfilled only if each A_{i+1} is a generating subset or input of A_i. It means that the set of all feet generates the set of dipodies, the latter generates the set of verses and this set combines into all types of strophes. A questionable status is open to disputes only in the issue of prosodemics and podics that bring unfamiliar terms. Table 47 strives to demarcate the whole framework of versology but fully consistent systems can be delineated only for independent ethnic groups.

Neat structuring is broken by different ethnic traditions colliding in quantitative, accentual and syllabic versification. Quantitative prosody was remarkable only for Indo-European and Caucasoid peasants, accentual, alliterative and rhymed characterised Altaic agglutinating languages and melodic verse was typical only for Indo-Chinese isolating languages. In our view syllabic and syllabo-accentual poetry represents only a collapsed hybrid of the three principal lineages.

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