A Parallel Model of Musical Research and Creation

DAN DEDIU, Professor PhD National University of Music Bucharest ROMANIA*

Abstract: Stages of both processes – research and creation – are depicted and proposed as tools for understanding the uniqueness of the musical triad: musicology, interpretation, composition. Although the borderlines between them are fuzzy and the interconnections powerful, we can find sufficient reasons to compare these different ways to obtain knowledge and to generate results in the field of music. The proposition of a single model for all three areas takes into account the following stages: information, analysis, design, processing (combining intuition with rational procedures), adaptation, finalization. Similarities between the processes of musical research and musical creation are expressed and emphasized with examples, maps and figures.

Keywords: research, creation, performance, stages of temporal evolution.

1. Introduction

Music, from ancient times, was connected to research. As a matter of fact, a musical instrumental genre springing from late Renaissance and early Baroque was called *ricercare*, in Italian, which in English has the equivalent in the word research. What is the subject of *ricercare*? It's an attempt to travel into unknown territory. It consists of two main strands: invention – which can be defined as the activity of finding novel ways of thinking and seeing the world, mental paths that have never existed before – and discovery – seen as the activity of revealing things and ideas that exist but have been hidden from our view.

But research is inextricably linked to musical practice. Think of Mozart's sketchbooks, where he would write down the beginnings of a theme and then remember them, or Beethoven, whose compositional workshop was like a furniture factory, for from his sketchbooks we can see and feel the transformations of melodic and harmonic material from the beginning to the end of the piece. Thus, we can ask: are the composers' sketchbooks relics of the research process or not? Is the process of composing a piece of music - hence what we call artistic creation - similar to the process of scientific research? If we look at Stravinsky's sketches for Sacre du printemps we see a jigsaw puzzle of ideas, like the parts of an engine waiting to be assembled and put in place; if we look at Bartók's transcriptions of folklore, Enescu's intricate and complex

^{*} dan.dediu@dandediu.ro

sketches, Messiaen's birdsong captured in a plethora of scrupulous and meticulously notated notes, then we see an ongoing pre-compositional concern that can be likened to research. The same goes for the process of musical interpretation. If we attend a rehearsal of a string quartet or an orchestra, if we watch a masterclass for pianists or singers, we will notice the immense amount of energy, thought and coordination of mind with feeling, of hearing with physical movement, of sensation with intention, no less than the careful probing of the microcosm by physicists, or of the macrocosm by astronomers.

2. The three zones. Two models

We can usually conceive of three areas of specifically musical activities: the area of musicology, which is divided into nine segments of interest (cf. Grove Dictionary): history and style, theory and analysis, text criticism, archival research, lexicography and terminology, organology and iconography, performance practice, aesthetics and aesthetic theory, dance and dance history; the area of music performance can be divided into three broad segments: instrumental performance, vocal performance and conducting (which can be refined through the directions of music for a soloist, chamber music, choral, symphonic and vocal-symphonic music); the area of composition includes the compositional process – with the proliferation of material (pitch organisation, rhythms, dynamics, timbres, spatialisation, configuration), elaboration of form and sonority –, notation and scoring.

However, one can imagine two models of understanding the relationship between musical research and musical creation. On the one hand, we can propose a *diachronic* model, which conceives research and creation as being opposite and, thus, complementary forces: musicology as a part of humanities and performance and composition as parts of the art of music. On the other hand, there is also another possibility to conceive research and creation as two intertwined pistons of the same mechanism of exploration. This is the *parallel* model, which is based on fused integration of research and creation, as two activities which share the same stages of the exploration process.

From these three areas we can imagine two models of understanding the relationship between musical research and musical creation. On the one hand, a diachronic model can be proposed, which would conceive of research and creation as opposing and complementary forces: musicology would then belong to the humanities, and performance and composition would constitute parts of the art of music. On the other hand, there is another possibility, namely to conceive of research and creation as twin pistons of the same mental mechanism of exploration. This would be the parallel model, based on the merging integration of research and creation as two activities sharing the same stages of the exploratory process. In what follows, we will delve deeper into

this parallel model of musical research and creation, convinced by the similarity of the mental processes involved in each of the areas outlined above.

3. The six stages

Both research and creation follow a mysterious mental process, which, however, can be divided into several stages of temporal evolution, on which we will be able to reflect punctually and compare the various zonal activities as essentially equivalent. Here are the stages proposed in the parallel model: informing, analysing, designing, processing, adapting, finalization.

The first stage common to research and creation is *information*. Musicologists will inform themselves about the chosen theme, performers will consult editions of the score, listen to recordings, and composers will gather information about the ensemble and the instruments (or voices) for which they intend to write, and seek out other compositions written in the same genre or for the same ensemble by other composers. Information is essential for "not reinventing the wheel" and for a good cultural placement in the field of knowledge.

The second stage is *analysis*. The musicologist can follow the path of a detailed analysis of the context and the parts; the performer can initiate the analytical approach on several levels: the conceptual one, by carrying out an analysis of form, which will help him to understand the articulations of the piece, the logical-musical one, by opting for different phrasings, the technical-instrumental one, by indications of fingering, griffes, bows, breaths, cesuras; the composer will delve into the pre-compositional work, focusing on the tone scales to be used, on rhythms, gestures, motives, themes, volumes, registers, densities.

The third stage – *design* – proposes a conceptual project. In musicology, the main ideas and even some working hypotheses will be formulated, the conceptual field will be mapped (by means of mental maps), various data will be recorded (by means of reading sheets). In musical performance, the project will be constituted by proposing an interpretative variant, by working on the "punctuation" of the sound flow (breaths, dynamics) and by establishing the "hot points" of the piece ("highs" and "lows" of expression). In composition, one can try to project an overall form, together with establishing a provisional trajectory of the music (its direction of evolution) and one can collect writing details (from instrumentation strategies, effects, ornaments, accents, etc.).

Next comes *processing*, the fourth stage and the core of all research and creation. Musicologists will gradually develop the text of the article, study or essay. Performers will begin processing the score through rehearsals, special recordings (to gain an objective distance), critical evaluation of various moments of the piece, interpretation of the whole work (to get used to the accumulation of temporal energy and to train their physical stamina). Composers will synthesize sketches, focus on intentionality, "anchor" a

possible version of the composition, making use of the proliferation of musical material, instrumental-vocal writing, ongoing self-analysis and protention (imaginary placement in the ideal time of performance and mental unfolding of the sound flow), in a word, compose.

After processing, it is the turn of the fifth stage – adaptation – to take the results and present them in a specific manner or format. Musicologists will develop charts, diagrams, titles, subtitles and summaries of the text they have written, so that it can be understood as clearly and effectively as possible. Performers will need to adapt to the conditions of the concert or performance hall. Sometimes it even requires feedback from a trained and objective ear, different from that of the performer, to be aware of what and how to adapt in the performance to achieve the best possible result under the given conditions. And the composers will, at this stage, finalise the development of the score, extracting the parts and be able to train their behaviour and make their presence more effective at rehearsals.

Lastly, the sixth stage is *finalization*. In musicology the concluding ideas will be formulated, in performance the concert or performance will be performed, and in composition the score will be given its first hearing in concert, performance or recording.

The same mechanism for the production of musical knowledge is thus activated, research and creation being activities that spring from the exploratory impulse of the human being and, as such, overlap and merge in the present. Thus, it is natural to find creation in research and research in creation.

Below is a comparative table of the stages in the temporal evolution of the artistic research/creation process, broken down by the three areas of musical activity: musicology, performance and composition.

	Research		Creation		Research + creation	
	information	analysis	projection	process	adaptation	finalization
Musicology	Bibliography	Context and segmenta- tion	Main ideas, hypothesis, mapping, recording data	Text elaboration	Charts, schemes, summary	Conclusion
Performance	Score edition, recordings	Form, fingering, phrasing	Proposition of a version	Rehearsals, critical assessment, play- through	Concert hall/venue conditions	Concert (Show)

Composition	Ensemble, Genre, other works	Precompo -sitional process: material elaboration	Form, trajectory, details	Anchoring, proliferation, composing	Score, parts, rehearsals	First performance
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Table 1 Stages in the temporal evolution of the artistic research/creation process

Concerning the above table, we note that information and analysis are clearly research-oriented. Design is clearly creation, just as processing can be seen as part of creation. Finally, adaptation and finalization combine research and creation to produce a scientifically (musicology) or aesthetically (performance and composition) relevant result.