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Umwelt* building in creative education: exploring interdisciplinary pedagogies in the module *AcrossRCA

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Abstract: The article presents reflections on how a range of concepts and postulates from biosemiotics, generative semiotics, and semiotics of culture can be reunited in the production and implementation of pedagogical practices. Written around the case study of an interdisciplinary module, *AcrossRCA*, the article describes the use of notions such as *Umwelt*, semiosphere, the generative trajectory, and criteria for the selection of the corpus as tools to support the dialogue between cultures, languages, disciplines, and professional practices. The sections outline the author's previous work utilizing semiotics as a pedagogical tool in teaching theoretical subjects in UK creative higher education, and the expansion of the model to accommodate the teaching for *AcrossRCA*. One of the key insights from the case study relates to the role of the pedagogue and educator as a facilitator of translations, extrapolating the concept from linguistic translations to the translation of cultural practices, ideological positions, and professional and epistemological postulates. The experiment responds to the argument of integrating paradigms within semiotic theories, searching for points of dialogue between the Anglo-Saxon, French, and Russian–Estonian paradigms, in dialogue with critical pedagogy and writings from philosophy, anthropology, and sociology which support the argument for holistic practices across disciplines.

Keywords: generative semiotics; interdisciplinary collaboration; semiosphere; semiotic modeling; semiotic pedagogy

1 Introduction

AcrossRCA is a module mandatory to all postgraduate students at the Royal College of Art (United Kingdom): it is a collaborative, interdisciplinary project that forces individuals to study and work with colleagues outside of their habitual cohort and peer group, mixing with other specialisms to produce teamwork in response to urgent

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contemporary challenges. According to the module handbook, the purpose of *AcrossRCA* is to promote engagement with peer, academic, and professional networks, understand the role of collaboration in addressing urgent complex challenges, and awaken to the value and social responsibility of creative practice. The students were not evaluated by the quality of the team outcome but through an individual reflective statement that aimed to demonstrate the students' ability to describe and critically evaluate the collaboration, the experience, and its impacts on their professional development. The module was structured into core skills seminars, which address the necessary skills for the project, and collaborative team tutorials, where students get to discuss their specific team process, progress, and unique challenges.

As one of the tutors leading a cohort responding to the theme of *Justice, Equality and Misinformation*, I worked with 30 students from eight different countries (and my own nationality made the sum total nine) coming from master's courses in Architecture, City Design, Contemporary Art Practice, Curating Contemporary Art, Design Products, Digital Direction, Information Experience Design, Innovation Design Engineering, Interior Design, Fashion, Jewellery and Metal, Painting, Photography, Sculpture, Service Design, and Visual Communication – alongside semiotics, to include my own specialism. Working in six teams of five students for six months, the cohort responded to an open briefing with no rules of what could or could not be produced, as long as ethical challenges were properly identified and addressed. By the end of the project, my teams had produced a fashion collection and accompanying photoshoot; a collaborative interactive book; an educational escape room; an interactive installation documented as a video archive; a video reel and accompanying zine; and a video game. It was an extremely successful cohort, with one of the teams making it to a competitive selection of 20 outputs (chosen from more than 400 teams) to the *AcrossRCA 2024 exhibition*. Some of the insights in this article were first presented in an internal event at the Royal College in May of 2024, where I shared best practice in *AcrossRCA* teaching. My work was also presented at the 16th Congress of the IASS/AIS in Warsaw, integrated in the panel “Transference between Realities: Semiotic Relativity and Umwelt Building” (Jardim 2024c).

A pedagogical initiative essential to mitigating professional challenges graduates will face in a very near professional future – both when it comes to the themes themselves and the challenging environment created by the module – *AcrossRCA* attempts to disrupt existing pedagogical canons and poses challenges to traditional specialist education and the comfort of monocultural educational environments, where all students are similar in professional aspirations and interests. The blending of STEM, fine arts, creative industries, and design specialisms, combined with the internationalized environment of the Royal College of Art, creates situations in which the learners, as well as the tutors, must, quite literally, learn to *see through the*

eyes of another – to understand unique visions, perspectives, and practices, the specific set of processes each individual can contribute, and what the limits of specialisms, skills, and ways of knowing are. More than requiring a set of tools, teaching in this environment entails the development of a new pedagogical vision which is capable of guiding students into developing (or rediscovering, recognizing) the skills necessary to navigate the unique challenges of international, intercultural, inter-sectoral, and interdisciplinary collaboration.

In one of my previous pedagogical works (Jardim 2021a), I explored the encounter of critical pedagogy, contemporary creative industries practices, and postulates from phenomenology and semiotics in the construction of, more than “creative,” *generative* pedagogy. Working with concepts from Greimas’s semiotics (see Greimas 1970, 1983, 1986, 1987; Greimas and Courtés 1993; Greimas and Fontanille 1991), I designed a set of pedagogic practices mirroring the journey of generating meaning through semiosis and semiotic analysis as a generative trajectory of knowledge, in which the individuals learn to engage with each one of the levels – discursive, narrative, and fundamental (Greimas and Courtés 1993) – by identifying the specific substances of the course content and understanding the various depths at which one can meet with the material, specific theories, and their research objects. This pedagogic model, however, was developed around an education theory for a monocultural environment: although my cohorts were extremely diverse when it came to ethnicity, nationality, and cultural backgrounds, they were united as students taking the BA (Hons) Fashion course at the University for the Creative Arts, Epsom. To accommodate the interdisciplinary demands of *AcrossRCA*, my Greimasian foundations also had to be enlarged to accommodate other semiotic paradigms: Lotman’s (1990, 1992; Lotman and Clark 2005), *semiosphere*, and Uexküll’s (2013; Sebeok 1979) *Umwelt*. Lotman (2002) remarked that, more than being new words, these concepts demand paradigmatic changes in the practice of theory by reversing epistemological positions. Thus, the passage from a planar understanding of cultural processes to a spherical one found in Lotman and the reversal of the deterministic formula into a model of a significant world at the inception of the *Umwelt* theory offer a model, as well as a conceptual base, to further the idea of a generative pedagogy to accommodate the clash of worldviews occurring in interdisciplinary settings, enriching my Greimasian sphere with broader ways of perceiving and new paradigms that permitted me to apprehend further, enlarging the limits of my practice.

In addition, my past works on identity and the deconstruction of surface cultural “oppositions” that reveal equivalent cultural narratives and fundamental values (see Jardim 2019, 2020, 2021b, 2022, 2024a) provide a foundation to enact the same dissolution of contrarities in professional and epistemological views: rather than being a problem exclusive to ethnic, national, cultural, or religious identities, the

dynamics of Otherness and binaries of “us versus them” are also central to the interactions between professions and academic areas. Addressing those dynamics in an integrative manner, thus, is at the core of promoting genuinely *interdisciplinary* collaboration, while fulfilling the aims of engagement and shifting of perspectives a module such as *AcrossRCA* is supposed to harness.

This article aims to first present an overview of my past efforts in producing a semiotic pedagogy and then address the developments in my own model as a result of accommodating the pedagogical reflections I produced through my teaching of *AcrossRCA*. The final section will present the *AcrossRCA* case study and the description of specific practices I designed and implemented in the sessions with the cohort. I aim to argue that the specific problems encountered in interdisciplinary collaborative environments constitute matters of semiotic modeling, thus connected to *Umwelten* and semiospheres and their explosive encounters. Drawing from other theories – such as Santos’s (2009) *ecology of knowledge* and Guattari’s (1989) *three ecologies* – my work continues an argument for the reintegration of semiotic theories (see Kull 2024). In the macro, this project reflects the necessity for the reintegration of biological, cultural, and subjective realms into the same level of experience, both in the analysis of objects and in the design of pedagogical practices that are expanding, rather than narrowing down the possibilities of learners and future researchers and professionals (Jardim 2024b). Furthermore, this article outlines a model of education aiming to accommodate dialogue through the tools utilized to develop a certain disponibility to exchange with others, which draws from Landowski’s (2004, 2005, 2009) theories of contagion and adjustment, creating conditions to deconstruct cultural and professional assumptions and exposing subjects’ overlapping interests, aspirations, and ambitions. Finally, following the critical pedagogical tradition outlined by Freire (1970) and Vygotsky (1987), and continued by Deleuze (1986, 2003) and Guattari’s (1989; Deleuze and Guattari 1980), this piece reflects on what roles and competences the tutors and students must embody in response to an “ecological” project of interdisciplinary dialogue, so as to mitigate the professional, subjective, environmental, and epistemological challenges of the 21st century.

1.1 Ethics

This manuscript was written from personal notes I took during the taught sessions and tutorials from *AcrossRCA* at the Royal College of Art. Students were aware of my note-taking during sessions and the pedagogical and research use of the information. In preparation for the writing of the manuscript, I collected consent forms for the anonymous use of students’ statements from discussions and tutorials, information about majors, and details of team projects. No information contained in the official

submitted assessments or academic results was included. To maintain anonymity, names, genders, and nationalities will not be disclosed, and students will be referred to using the neutral “they/them.” The perspectives of students who have withdrawn their consent were removed from the manuscript.

2 A semiotic pedagogy

At the start of my career in the UK higher education system in 2015, the constraints of time, physical space, and intersubjective relations I encountered enacted a forced collision between my semiotic understanding of reality and my qualification in critical pedagogy. Unlike the study program for the university qualification I received in 2003–2006 and 2012–2014, back home in Brazil, which was marked by multiple, sequential long-duration modules aimed at continuity of subjects and depth of knowledge, in the UK, courses were much shorter, thus demanding effective curation of content. A large emphasis was placed on “independent learning,” which contrasted with the secondary education reality in the UK, where students receive early specialized training, taking only the subjects of their choice. Consequently, home students come to the university with considerable gaps in general knowledge, which works against the project of independently studying a subject. As a result, engagement with theory courses in “creative degrees” is low – to the extent that, today, some UK universities are making the decision to phase theory subjects out of the curriculum altogether. In my institution at the time, the current student results in my subject were extremely discouraging, with a high incidence of failures and attempted academic misconduct.¹

In this context, it became evident that classical pedagogic theories alone would not carry the answers to the challenges I faced, which were typical of another interdisciplinary clash: the blending of education with business management, and the blurred lines between learners and customers.² To mitigate these obstacles to engagement and adapt the contents of my curriculum to maintain the quality and depth I expected to deliver despite the constraints, I submitted the existing syllabi – from the courses I taught and the other courses my students attended at

1 For definitions, at UK universities “academic misconduct” refers to instances in which the student attempts to pass off work produced by others as their own. Some of the cases included in the policy are plagiarism (from online sources, previous papers by other students, or previous papers already submitted to other institutions), collusion (work highly similar to another student in the cohort), or commission (work produced by a third party, such as a private tutor, relative, friend, or essay mill).

2 The situation of a “marketization of higher education,” particularly in the US and UK university market, and the long-term impacts of this model on pedagogical quality have been broadly discussed in a book edited by Molesworth et al. (2011).

each stage – to a semiotic analysis, aiming to extract from it the necessary knowledge, skills, and competencies my students required from my modules so that they could succeed holistically in their education (and subsequent entrance into the professional market). More than an analytical tool, the semiotic principles from Greimas's (1970, 1983, 1986, 1987) and Landowski's (2004, 2005, 2009) works provided me with a set of creative tools that could be used to inform the design of the programs.

Unlike existing areas, such as edusemiotics (see, for example, Semetsky 2010, 2013, Semetsky and Stables 2014), which aim to create a new theory uniting semiotics and pedagogy, my work identifies where and how semiotics *already* is a pedagogical theory and practice, for example, by using Greimas's (1986) criteria for the selection of the *corpus* as tools for content selection: representativity, exhaustivity, and homogeneity. In such a model, first, the content is intentionally fragmented, and a "provisory corpus" is identified and offered to learners. Second, the criteria of exhaustivity belongs to the learner, which is required to test the provisory corpus on the larger manifestation – their project or research interest of choice – with the aim of verifying if the analysis is replicable in the larger sample. Finally, the criterion of homogeneity permitted me to group themes that would not normally blend together simply by changing what section of the phenomenon the analysis would focus on. For example, when delivering a module on Fashion History in only five one-hour sessions, I chose to organize the content not in centuries, decades, or any other diachronic frame, but to identify five key developments in a Western history of fashion businesses and brands and to use each session to visit, across time sections, the emergence and development of those innovations. By creating a structure never seen before, the course acquired an aura of interest that helped students to break from the chronological historical framework, seeing connections between the synchronic chains that govern innovation and development in the arts, fashion, and design.

However, another use of the semiotic theory in that context referred to the cultivation of human relations by examining content, course structure, and classroom dynamics through the lenses of the regimes of interaction proposed by Landowski (2005, 2009). More than an innovation, my work with this theory offered a semiotic vocabulary to many other pedagogical writings that approach the importance of love and care in education (see, for example, Deleuze 2003; hooks 1994). The contribution of semiotics, however, rests in the possibility that, by understanding relations in an almost algebraic, logical frame, *love* and *care* cease to be personal or subjective affects to become modes of interaction that can be replicated as narrative algorithms that do not depend on the tutor's personal feelings for the student. Rather than imposing on educators that they must love their students (even when they don't) or that peers must love one another, Landowski's (2004, 2005, 2009, 2010) image of adjustment as a regime in which subjects are in direct contact, without the mediation

of objects of value, can be read as the abstract mechanism behind the acts of loving and caring, as an unconditional form of contact. Instead of deploying strategies to make other subjects act in an expected way so as to achieve specific results, Landowski's adjustment presents a model of interaction in which "being there" is the only goal. In what he described as an unmediated form of contact (Landowski 2005), *esthesis* – the ability to feel and make others feel (see Greimas 1987; Greimas and Fontanille 1991) – spontaneously emerges from the mutual discovery of subjects.

Some of the insights from this "experiment" (Jardim 2021a) paved the way for the developments in this model to accommodate *AcrossRCA*. One of the core propositions emerging from my pedagogical application of semiotics and socio-semiotics is the matter of *subjectivity* conferred not only on human subjects, but also on theories, study areas, and research "objects": one of the premises of Landowski's (2005) regime of adjustment is the absence of constructed hierarchies between subjects, achieved by inviting a form of symmetry in the interaction that can result either in mutual accomplishment or mutual annihilation. In my own trajectory as a learner, Landowski's adjustment offered me a precise impression of the relationship with an object or a theory when one is in a state of flow: similar to his image of the *volute* (Landowski 2010), one can be sucked into a vortex in which time and space no longer matter, and only the pure intersubjective relationship *makes sense*.

To expand this principle from the monocultural environment of my Contextual and Theoretical Studies courses to *AcrossRCA*'s interdisciplinary project, the first step was to reflect on the meaning of *interdisciplinarity*: its insufficient dictionary definition as "relating to more than one branch of knowledge" provided me only with the answer to why it is so difficult for this time of collaboration to result in a meaningful outcome. The blending of disciplines requires more than a surface collage of subjects to construct the appearance of more than one knowledge area: it is at the fundamental level, in the blending of mechanisms and values informing each discipline, that the intersection must occur. On its own, the prefix *inter-* refers to "between, among, mutually, reciprocally"; thus, to cultivate *inter-* practices worthy of their name, one must look beyond the utilitarian or instrumental approach to knowledge areas – semiotics included! – and strive for a genuine integrative collaboration, in which more than the surface of knowledge areas and professional practices are collated. In other words, it is possible to classify *interdisciplinarity* as not belonging to the realm of finished utterance [*énoncé*], but an indicative of a processual event that *unfolds between subjects* – the human and nonhuman subjects as agents, as well as *subject* in the sense of *discipline* or *knowledge area*. Such a distinction is crucial when it comes to the current fashion of interdisciplinary teaching, learning, and working: the desire for a definition installed in the realm of utterance [*énoncé*] indicates the desire to solidify a formula, to *define* and construct *models* of what "interdisciplinary looks like" – so that it can be replicated.

My point of departure, thus, was to find solutions through which subjects, disciplines, and professional practices can be truly invested with subjectivity, and to enter in relation from their semio-narrative level, and not only through the surface or the level of the “look.”

3 Educational and professional specialisms as subjective *Baupläne*

As a phenomenon of encounter, like any encounter between two (or more) subjects, genuine interdisciplinarity will never look the same twice. Similarly to the assemblages of different forms of life (Tsing 2015), the situational encounter of disciplines is a multilayered phenomenon, resulting in an assemblage of different ways of being and making meaning in the world. In such circumstances, various iterations of semiotic modeling are at play as a series of *Baupläne*: the blueprints that govern the process of becoming of life forms. Beyond Uexküll's (2013) biological and biosemiotic understanding of the concept, what constitutes our significant environment (*Umwelt*) contains more than natural information. Surpassing the project of categorizing what elements of our reality are “natural” or “cultural,” in my understanding, our languages, cultural milieu, social class, ethnicity, gender, and religion, as well as the unique languages and practices of our chosen disciplines and professions, constitute a fundamental lens through which we make meaning in the world – thus integrating our *Baupläne* as the algorithm of our becoming as subjects.

For each individual, their modeling is unique. The emergence of identity scholarship proposing themes of intersectionality (see Crenshaw 2017) is a symptom of this impossibility of identity as *idem-entity*: with each layer of experience, a unique *Bauplan* is being shaped to include more ways of seeing – alongside more significant signs that constitute one's unique imprint of the world. Although the project of intersectionality resulted in the creation of more subcategories – which, in turn, create more separation and, thus, more points of conflict – my argument rests on the uniqueness of each subjective experience – which also results in the uniqueness of each new encounter between different *Baupläne*.

Thus, to argue for the transposition of the concept of *Umwelt* from a merely *biological* phenomenal world to a phenomenal world that is also *epistemological*, we must recognize that each different discipline, way of knowing, and specialism also constitutes a distinctive ideological *Bauplan*. Each individual interprets knowledge, research objects, briefings, and interpersonal situations through their unique frame or model, which is constituted through the accumulation of *Baupläne* derived from their personal and interpersonal experiences, combined with the models offered

through their education. By education or training or qualification, I mean the combination of factual data a subject was exposed to – which one could define as the “dogma” of study areas and professions – and a set of fundamental values, which we could describe as a certain *ethos* that differs from profession to profession, from discipline to discipline. One of the ways to understand this second aspect is, for example, observing what kinds of competencies are encouraged (or discouraged) in the process of education: while intuition and sensitivity are nurtured in subjects leaning toward the humanities, mathematical certainty is valued in subjects leaning toward technology, and so forth. The sum of data and values communicated through training constitutes what could be described as a *semiotic system* that, in turn, is formative of the “identity” of a subject area and those partaking in its learning, practice, research, and teaching.

Although we tend to see the opportunity of pursuing higher education (HE) as the possibility of expanding one’s horizons, the reality of HE today goes in the opposite direction, in a system developing toward narrower and narrower specialisms that shrivel not only subjects’ professional possibilities but their ways of seeing and the prospects of dialogue between different professions (Jardim 2024b). As we elaborate on our understanding of educational models as *Baupläne*, it becomes clearer that *all* modeling is incomplete: every choice made by an individual means the loss of a set of competencies, which, often, shut out different perspectives as *false* or *incorrect* because they don’t fit in with the dogma of their chosen discipline. This scenario is aggravated when the mainstream discourse constructs preferences for certain forms of knowledge that are perceived as “more objective” or “truer” when it comes to specific issues. Such dynamics result in hierarchies determining what subjects must be in charge of responding to “important challenges” and what subjects are not entitled to participate in the discussion. Finally, it is in this vicious cycle that, in the mainstream perception (which is also what informs funding and education policies), the arts are relegated to the role of “commentators” and the social sciences to “critics” of reality – but not the ones who can play a role in *transforming* society or *creating* solutions.

When seen from the outside, individual *Baupläne* approximate the meaning Levinas (1972) creates for the visage, as a mechanism through which we encounter others. For him, the encounter with an Other is necessarily that which puts the *me* into question, emptying me of myself; the desire for another is a fundamental movement, absolute orientation, which is meaning [*sens*] (Levinas 1972). We encounter others through the visage, denouncing the impossibility of direct or privileged contact with the world of ideas: everything must come through a mediation, which installs third persons in the interaction. To remove mediations requires an extreme vulnerability, which can be translated into the necessary *exposure* required by *inter-* practices across cultural forms. So that genuine interdisciplinarity

(and interculturalism) can take place, the fundamental values must be exposed; not specific postulates, practices, or formulae, but the paradigm from which these are constructed, informing ways of seeing, being, and doing in the world.

The process of undressing required by interdisciplinary collaboration is profoundly personal and emotional, as the exposure of the core of our truths is an exposure of our vulnerabilities, in a process that includes both students and educators, who also must partake in the process so that genuine *inter-* phenomena can occur. Such vulnerabilities can emerge in various forms: the rejection of the Other and their ideas, worldviews, and the processes of research and development; the polarized attack on the “weaknesses” or “inadequacies” of other ways of knowing; the rationalization, through hierarchical arguments, of what specialism should be in charge of what; and the virtualization and realization of various fears surrounding miscomprehension, cultural acceptance, and adequation of own knowledge to the task. In essence, these processes reflect rejections of *Baupläne* that are Other to one’s own semiotic system and modeling.

The fear associated with interdisciplinary collaboration is in consonance with the theme of Outside (*le dehors*) in Foucault (2015): in Deleuze’s (1986) commentary, this line of the Outside appears as our own double and the alterity carried in it. The Other discipline appears as this Outside and the act of inter-secting knowledge and practice must occur in this beyond-and-back-again motion, in which subjects – both human and epistemic – are transformed when they reach out of themselves. Deleuze continues, remarking that this line is *deadly*, too violent and too rapid, taking us to “an unbreathable atmosphere” (Deleuze 2003: 151) – a line one must simultaneously cross and make practicable and thinkable. In Foucault, this process appears as a bending of the line so as to constitute a “liveable zone” – the production of subjectivity (Deleuze 1986, 2003).

As individuals enter their process of subjectivation, each response to the encounter with the line of the Outside is equally unique: the innovation associated with interdisciplinary collaborations is nothing more than the sum of individual struggles in crossing the line and making it liveable. In a process where various lines are bent – since each discipline has its own set of criteria that ensure the line is liveable to its practitioners – interdisciplinarity occasions the emergence of assemblages, in the sense Tsing (2015) utilizes the word: open-ended gatherings that don’t just reunite lifeways but allow them to be co-created in a form of polyphony. The assemblage can be translated into an intersection of *Umwelten*: rather than competitive operations of imposition of ways or the domination of one thought frame over the other, the assemblage occasions the creation of a third *Umwelt* that is shared by two (or more) subjects. It is through semiosis, and the articulation of *Umwelt* and *Innenwelt* – loosely translated as the “inner world” – that subjects are “translated” so as to make them liveable, creating a third space in which the accomplishment of the

assemblage surpasses what subjects could have realized (or, even, devised) by themselves.

The ideas of assemblages and a liveable line of the Outside touch upon the image of an *ecology of knowledge* propounded by Portuguese sociologist Santos (2009): rather than present a paradigm in which different ways of knowing are fragmented and segregated, Santos argues for a logic in which, like in an ecosystem, different forms of knowledge co-exist and are seen as interdependent. For Santos, although society creates hierarchies in the valorization of different forms of knowledge, it is important to recognize that no knowledge form possesses, by itself, the necessary tools to comprehend the totality of a phenomenon. Thus, a synergy of different forms – both formal and informal, produced by both dominant and marginalized subjects – makes an epistemological ecology possible (Santos 2009), as much as, in the life world, the synergy of different organisms makes life itself possible. In Santos's understanding, the only possible path to achieving an ecological approach to knowledge is by flattening hierarchies that prevent subjects and disciplines from participating in debates or in the creation of solutions. His argument, in many ways, approximates Guattari's (1989) proposition of an *ecosophy*: a model of ecology in which the solutions for mitigating crises in the natural environment must be articulated in conjunction with the social and subjective environments – a line of reasoning that attributes the ecological crises to the separation of those three vectors by scientific and economic systems.

4 *Umwelt* and *semiosphere*: cracking the spheres

According to Kull (1998: 304), the biosemiotic concept of *Umwelt* is defined as the semiotic world of an organism and all of its aspects that are meaningful for that organism: the *Umwelt* is that which unites the semiotic processes of an organism into a totality. He remarks that the *Umwelten* of different organisms always differ, since the unique significant worlds depend on “the individuality and uniqueness of the history of every single organism” (Kull 1998: 304). Finally, a *semiosphere* can be described as the set of interconnected *Umwelten* (Kull 1998: 305). These matters of individuality, uniqueness, and historicity contained in von Uexküll's concept of *Umwelt* open up the possibility of understanding this postulate beyond the biological dimension of organisms – since cultural and linguistic processes are also formative of our personal histories as organisms in a culturalized world.

The forceful encounter between spheres appears, in Lotman's (1992) semiotics of culture, in the metaphor of the *explosion*: an event in which the destruction of spheres enables the emergence of a third language. Rather than the combination of elements from one sphere and the other, or the dominance of one sphere over the

other, the emerging third language is more than the sum of the parts: it is something new, a result of the encounter and the reconstruction of the “fragments of the explosion.” By transposing this event to the collision of *Umwelten* as individual spheres, the explosion can enact their *destruction*, which may (or may not) be followed by the construction of a new, unique world. In the realm of knowledge, such destruction relates to the shattering of certainty that our worldview is the best, that our culture is the superior one, or, simply, that our way of working is the only viable possibility. However, to truly *collaborate* means, to invoke Landowski’s (2004, 2009) image of the destructive adjustment, a form of *mutual annihilation*: a pure, unmediated encounter of two agents that causes both to disintegrate into one another.

The vision of destruction in confrontation aligns with the perception that, in the encounter with the other, some kind of adaptation will be necessary; when we reconstruct our damaged boundaries, they are not the same as they used to be – there will be either a slight expansion, in an optimistic view, or a contraction into further conservatism which, unfortunately, is the most common outcome to the diversity efforts in mainstream society. In the classroom context, the violent cracking of spheres is often manifested as resistance to the Other: a combative positioning that aims to prove the Other is wrong, to convert the Other to one’s own view, or to shut them out by disengaging with what is being said. Quiet or loud violence also often appears in the form of “rational arguments,” in which the claim for the “superiority” of one discipline over another to address a specific challenge or portion of the project is deployed, creating hierarchies and dogma around who is entitled to speak on what matter.

Although our preferred discourses about knowledge and education focus on the cognitive strategies facilitating the transmission of data and the *computational*, operative dimension of learning, there is also a *contemplative* level of cognition that is affective and felt corporeally by subjects. Beyond the security of skill transfer that is governed by a regime of programming (Landowski 2005) and based on coded sense (Oliveira 2013), the production and transmission of knowledge are also marked by the uncertainty and adventure of regimes governed by hazard and by *esthesis*. Deleuze’s (2003: 141) image of the philosopher as a “diver,” cultivating forms of thinking that are “dangerous” because they reach beyond the safe waters of the surface, refers to the production of knowledge outside the realm of predictable algorithmic interactions. Part of the danger, noted by both Landowski and Levinas, lies precisely in the unpredictability invested in the encounter with the Other – be that a person, a cultural sphere, or, in the present argument, a different way of knowing.

Beyond the unexpected clashes that ignite explosions, affect can be harnessed through an intentional opening to receive the Other on purpose, anticipating the violent conflict and, instead, choosing to enter into a pure relation leading to mutual

accomplishment. To achieve such a state, however, it is necessary to go beyond the surface understanding of the Other's value. To genuinely partake in contact, subjects must reach beyond the matter of what skills can be deployed or what computational information is needed in a situation, reaching toward a more profound space – which, in generative semiotics, refers to the semio-narrative level (see Greimas and Courtés 1993). Despite some identifiable superficial differences between two ways of knowing – for example the factual information accepted by different areas, or what their research outputs look like – the point in which epistemologies and professions truly diverge are installed in the paradigms from which subjects are taught to operate through their education and qualification. It is at that level that spheres can open and become primed to *intersect*: it requires subjects to become aware of their own modeling (and the extent to which it differs from others), and to acknowledge the other's modeling as valid and possible, suspending the hierarchies and crystallized programs governing the perception of different areas and disciplines.

From that level of interaction, a genuine third language can emerge, otherwise, we may be producing manifestations that create an *effect* of interdisciplinarity at the surface (or discursive level) but, at the significant core (or fundamental level), there is no transformation *de facto* in the paradigms informing the actions of subjects – only a *bricolage* of discursive forms that deploys a simulacrum of collaboration without enacting it.

In Uexküll's (2015; Sebeok 1979) biosemiotic theory, the creation of signs by organisms is a form of adaptation to the *Umwelt*, which is developed in the process of an organism's life as more and more meanings are incorporated to constitute the *Innenwelt*: the inventory of meaning one uses to navigate the relations between themselves and the surrounding environment. As such, the relevance of our education, professional practice, and forms of knowledge as chained adaptations that support the navigation of our environment becomes evident. The construction of meaning between the inner and outer worlds must occur through mediations, which are signs themselves. In his essay exploring the concept of *pharmakon* in Plato, Jacques Derrida (1989) provides us with potential tools to support those challenging mediations between the students and the tutors, and between peers. Plato's idea of the *pharmakon* unites functions from the biology of individuals and their subjectivity in one, offering a possible image for the articulation of *Umwelt* and *Innenwelt*. As subjects constitute their internal phenomenal world through signs, the identity-less anti-substance of the *pharmakon* mediates this construction of sense through its ability to shapeshift. As a semiotic substance, it can take the form of that which it wishes to emulate, to then reverse itself into something else once it enters the subject, taking an epistemological or ideological form – a reversal of states through a certain form of “intoxication” that helps subjects to open up to the idea of learning as an “ecstatic experience.” This semiotic malleability of the *pharmakon* creates the

possibility of masking ideas and postulates in a format that is familiar to subjects from conflicting backgrounds, facilitating the necessary translations that allow for individuals to access elements that do not belong to their *Umwelt*, in a similar operation to linguistic translations: although words in distinct languages are not equivalent, we must find a middle ground – a third language – so that communication is possible, even if the transference of meaning is partial or incomplete.

In nature, we can use the example of the spectrum of sight to support this argument. What we consider to be the visible world is, in reality, a fraction of existing visual information that is manifested through wavelengths from 380 to 700 nm (or between violet and red light). Reptiles such as snakes, on the other hand, can see outside both ends of this threshold, giving them built-in infrared vision that allows them to, quite literally, “see temperature.” Even though that information is not perceptible by our natural apparatus, we have acknowledged the relevance of the snake’s unique way of seeing and managed to emulate, via a special headset, the ability to see in the dark through the detection of infrared waves that surpass the human sensory apparatus. This example manifests an artificial intersection of two *Umwelten*, the human and the reptile, which constitutes a mediating third sphere enabling an enlarged grasp of visual phenomena that exalts the value of other visual abilities – one which, most ironically, is used primarily in military applications that aim at the destruction of Others, instead of their integration.

In any case, the above example of technology offers a valuable image of the distinction between learning the abstract theory of how snakes see versus the possibility of *experiencing* a section of a reptile’s phenomenal world (and, potentially, feeling captivated by its unique possibilities). Although the senses are not the only part of our apparatus involved in learning and professional practice, McLuhan (1994: 44–45) makes a compelling argument about how the specialization of our functions also causes our senses to become specialized. Thus, it is not only in the metaphorical sense that subjects in different specialisms possess different “ways of seeing,” as well as hearing, feeling, touching, and even tasting – both with their palates and in the socio-cultural sense. Thus, in the contact of subjects with others, their unique attributes – or, to use the trending term, their “soft skills” – can become a powerful tool for mediation and simulation of experiences. In this process, contact can transform subjects themselves into the medium facilitating the creation of signs through affect in the classroom exchanges. To achieve this objective, my design of classroom activities aimed at practices and propositions that could help subjects loosen their boundaries so as to become prepared to experience like others do, rather than “learning about” their experience. In this process, the unique vantage points of each one’s special ways of experiencing can be recognized and incorporated into the project, interaction, or situation.

In practice, my teaching in the module became a process through which students and myself could literally experience the others' *Umwelt* through experimenting with their practices, processes, ideas, and ways of perceiving. The sum of such experiences results in an imprint of another *Umwelt* into one's existing *Innenwelt*, which will not only share the characteristics of both, but contain the unique potential of one *Umwelt* seen through the eyes of a mismatched *Innenwelt* – an expansive and cumulative (rather than reductive and destructive) process through which innovation and development are occurring. In Derrida's (1989) reading of Plato, the *pharmakon* is presented as a “pollutant” that deceives so as to disseminate itself in an organism through a strategy of constantly changing form. In a positive reading of this postulate, this powerful image offers a formula through which dogmatic, purist, reductionist conceptual frames (it doesn't matter if from the humanities, social sciences, life sciences, or STEM) can be “contaminated” by another epistemological substance that has the power to enter the subject – or entire field of knowledge, through the transformed “contaminated” subject and their expanded practice.

5 Case study: teaching *AcrossRCA*

5.1 Team-building

AcrossRCA started on an afternoon in October 2023 in which complete strangers, myself and 30 students, sat together in a studio at the RCA Battersea Campus in London. As is my standard teaching practice, even before telling my name, I asked students to rearrange their chairs in a large “circle,” so that I could see everyone and everyone could see one another. The technology utilized to deliver the session was the human voice, chairs, a desk, some sticky notes I brought in with me, and pens. The objective of the first three sessions – two meetings in person, with one online core-skills seminar on “Collaboration” in between – was to facilitate the process of self-organizing teams of four or five students. Although *AcrossRCA* had an open briefing when it came to the potential responses to be produced, the handbook for the module specified a set of rules to ensure diversity in the teams: team members should not all be of the same ethnicity or nationality; gender diversity must be observed as much as possible; and teams should not have more than two students from the same course/specialism.

Taught courses normally start with introductions. In this case, however, it was crucial to have the chance to know others in depth – rather than just learning their names and, maybe, their nationality and course. With the time pressure of forming well-functioning teams in only two sessions, I needed an introductory activity capable of effectively allowing us to describe our personal spheres and the most

significant elements constituting our modeling. I opted for structured prompts, elaborating questions that could somehow handle the elements forming the phenomenal world of a contemporary postgraduate student in the UK – besides the immersion in their study subject and potential early career (or established career or business, in the case of mature students), the extremely international environment in UK higher education institutions is also the encounter of languages, cultures, and forms of life. Equally, students bring their unique personal interests and political views (which were an important point to consider, since a theme such as “Justice, equality and misinformation” was likely to attract individuals who felt passionately about those issues). Finally, I had to take into account aspects of identity that transcend culture, ethnicity, and nation: gender and sexual orientation, special learning needs and mental health conditions, or any other characteristic strong enough to generate significant identification – and, thus, a potential area of conflict when encountering others. It was essential for the questions to allow students to spontaneously share what was most significant to them, instead of assuming what aspects of identity would be important – if any.

On the one hand, the legally required questionnaires that are designed to identify protected characteristics in application processes survey the candidates in *all* identity aspects. It is practically a consensus that these forms feel invasive, forcing subjects to disclose information they may not be comfortable sharing or, simply, that they may feel is not relevant to the situation (thus the inclusion of a “prefer not to say” option). My objective, on the contrary, was to encourage subjects to “disclose without disclosing,” by avoiding direct questions on specific aspects of identity altogether. The first round of questions was shared a few days ahead of the session in a collective email to the cohort. I specified that it was important to reflect on these and be sincere and thorough, as understanding one another was a crucial step to healthy team-forming. Each individual (me included) had to bring their answers, which would be shared with the cohort as our “introductory script”:

1. What am I looking forward to in this unit?
2. What am I afraid of in this unit?
3. What are the limits of my creative practice?

With all seated in a circle, I started by telling my name, a bit about my background, and by sharing a few lines from my answers: I was looking forward to working in a “really” interdisciplinary module and to getting to collaborate with so many areas outside of my own. But, I was *not* looking forward to all the drama, crying, and people wanting to abandon the project or change teams when things got hard (and I got my first hearty laugh of the term with that one); I also shared a little about my background in semiotics, communication studies, and poststructuralism, and how the

limits of my practice were the “real world” (after so many years studying discourse, image, and text).

The individual responses were captivating and varied, and effectively fulfilled the objective of revealing what I hoped to learn: while some focused on their professional concerns – for example, a student who already owns a business shared about not having much experience collaborating in a team, which they believed would be a challenge; another student shared about their career shift from a medical background to a fine arts subject– others focused on matters of identity (such as the importance of the theme in their life as a person with a protected characteristic or who witnessed injustice in their homeland), the desire to “do something,” the need to discuss relations of “oppressor and oppressed,” or the fear of facing ignorance and misunderstanding around specific issues. Others, equally, were more lighthearted and shared about not liking to read (or liking the reading too much and getting lost in the research and theory), their difficulties with the English language or communication in general, or their desire to discover people and stories by mingling outside of their programs. And of course, many shared specific fears around not having the right skills – students more aligned with technology were fearful of “hands-on” art practice, whereas the fine arts students were fearful of “digital” tools.

Very quickly, the scripts escalated to more relaxed conversations, with students jumping in, either responding to colleagues’ introductions or wanting to introduce themselves following statements they resonated with. As more and more shared about themselves, this initial “icebreaker” began the project of humanizing strangers through the sharing of their personal fears, expectations, and experiences. After we all knew a bit more about one another, we had our first discussion: a chaotic hour of unstructured brainstorming around “What is ‘justice, equality and misinformation’ for you?” In this round, we could infer more about individual political inclinations, engagement, and national particularities: on the one hand, students who had been living in the UK were quite attuned to the UK COVID-19 “Privileges Committee investigation” that was trending in October 2023; however, students coming from abroad had their own political scandals and culturally or nationally specific issues around gender justice, marriage, child custody, labor laws, and so forth. After most of them had shared something, I distributed some sticky notes and asked each student to write down what part of the discussion was the most resonant at that moment. I collected all the responses and, using a large table, rapidly classified the responses into clouds that were thematically similar, asking students to then find their sticky notes in the table and form a group with the people in the same cloud as them. The first session ended with half an hour of debate in those groups, and a few minutes to exchange contacts.

The morning after, we regrouped in a Zoom session for the core skills seminar. In a discussion following recorded material around “inclusive collaboration,” I

encouraged all to share their feelings about that theme and what their vision and experience of the matter was so far. In this session, the personal tone from the previous meeting started to dissolve, and discipline-specific dogmas started to emerge: students from more team-oriented specialisms were aware of the importance of defining tasks and being clear about who is in charge of what aspect of the project, whereas specialisms in which individual effort dominates generated responses more concerned with proper time to explore ideas, the importance of voices being heard (and credit being given), and difficulties with deadlines.

Throughout both lessons, I took notes of each response, aiming to start mapping potential challenges and using the insights to identify the direction of the next activity. In the second in-person meeting, occurring a few days later, the group was under the pressure of forming the definitive teams that needed to be informed to the Royal College of Art administration by the end of the day. Once more, I decided to prepare a structured discussion, this time with the objective of allowing students to experiment with different group configurations and exchange with as many people as possible in smaller groups. I elaborated a second round of questions to be answered by the students – this time privately, using a Google Forms survey whose responses were accessible only to me. I asked them to reflect on and record the answers to three additional questions about what they hoped their *AcrossRCA* output would be:

Round 1: What theme or issue are you hoping to address?

Round 2: What kind of product, service, or response are you hoping to produce?

Round 3: What audience would you like to focus on?

The questionnaire was elaborated in an order that aimed to take students through Greimas's generative trajectory (see Greimas and Courtés 1993). While in round 1 students got to discuss the superficial level of the project – the specific substances and forms of expression of discourses – questions 2 and 3 forced students to reflect on the semio-narrative level, discussing what stories, histories, and values they would like to address through what processes. We gathered in a studio in the RCA South Kensington building, where I proposed we engage in a few rounds of “speed dating” in the groups I had formed based on the survey responses. For each round of discussion, I set a 20-minute timer, after which we regrouped in the center and the next round of teams was revealed. I recommended groups should discuss their responses to each question as much as possible, making notes about how they felt in that group. I also recommended they pay attention when the same people appeared in the same group as them in more than one round, as that could be an indication of affinity.

While some individuals were very eager to share with others and hop from group to group, some were resistant to exchange outside of their common language

group and resisted the configuration I proposed (to which I humorously replied, “But can you endure them for just 20 minutes? It will be over soon!”); with each round, some students were concerned that I was dictating the “definitive” groups (to which I also replied, “You just have to put up with them for 20 minutes, try to enjoy it”). The meaningful experiences from the first session in person were also a driver of resistance, and some students, who were ready to “settle” for the group in the first session, were nervous about the new configurations; I reassured them that these were just designed for them to meet everyone and that they had complete agency over the final choice.

As we were about to start the fourth and final round – the self-organized, definitive teams – there was a fire alarm incident on campus, and we had to evacuate the workshop area. I recommended we try to keep talking while we were outside waiting to come back (and stressed, of course, that we needed to come back). Strangely, the intense shared experience seemed to have worked as a magic sauce to the activity, and, as I saw my students mingling and discussing enthusiastically while we were outside in the cold, I tried to spend a few minutes with each “cluster” and to participate a bit. Finally, as we were allowed to return to the studio, students were spontaneously divided into six teams, with only one “issue”: a team formed only by overseas students of the same nationality, thus breaking the *AcrossRCA* rules. The other five teams, however, responded to all the criteria of nationality/ethnicity, gender, and specialism diversity. Whether it was the exhaustion, the adrenaline from the fire incident, or the well-designed activity, students left the session genuinely excited about the project, happy with the teams they got, but also experiencing a degree of conflict on losing the opportunity of working with everyone else. Beyond the goal of having well-functioning *teams*, the designed sessions were able to create a strong cohesion in the cohort as a totality, which prevailed (with a handful of exceptions) for the duration of the project.

5.2 The project: interpretation and translation

After the team-building sessions, the module followed a structure of recorded core skills lectures and group seminars (in which we debated themes relevant to each of the project’s stages) and group tutorials (which focused on offering support to the specific needs of and challenges faced by each team). In those sessions, we either met in cohorts of 15 (three teams) at a time to have a collective discussion of the recorded material, or in slots allocated to an individual team. For the team appointments, I allowed the students to lead the tutorial and identify what support was necessary. Those sessions were often used for students to communicate the project’s progress (or lack thereof), to ask for guidance about research and engagement with external

networks relevant to the output being produced, and to offer clarification on institutional matters (ethics procedures, assessment guidelines, timetables, use of physical spaces and resources, and so on).

Rather than attempting to steer the projects in a specific direction that suited my background, as supervision is often structured, I took my role as a tutor to be that of a facilitator, helping teams to communicate and to make knowledge, skills, and competencies flow in effective ways between the participants. So as to honor the ethos of genuine interdisciplinarity, my expertise not only in semiotics but also in pedagogy had to be placed at the same level as the students' specialisms and professional practices: as much as students were in the process of learning about each other's *Baupläne* and expanding the boundaries of their own *Umwelten*, collaborating with other disciplines was also an opportunity for me to expand myself through observing and learning about how others think and learn, so as to adapt my knowledge and delivery for a more optimized point of dialogue. As we progressed, it became clear that, as I hypothesized, the challenges emerging in the collaboration were related to the problem of *Baupläne* and *Umwelten*. Thus, more than any subject-specific knowledge, the most defining skill required of a tutor in that situation was the ability to *translate*. Because not all the "languages" were previously known to me, the structural understanding I derived from semiotics became my most valuable asset in supporting the six projects I led: as conflicts located at the fundamental level of practices and worldviews emerged, the tactics for mitigating those challenges involved trying to interpret the views of one team member to others through exposing different levels of communication.

In Marais and Kull (2016), *translation* is defined as a means to *create meaning*; semio-translation is a process of "inter-ing" (Marais and Kull 2016: 26), in which interpretants are created. Furthermore, not only are texts being read and created, but, in this process, the *translator*, as the one carrying the memory, is also a text (Kull 1998: 302). In this logic, the chain of translations and semiosis derived from it are interlocked, resulting in a relation of mutual presupposition. The "texts" emerging in the situations encountered in my teaching were cultural and professional values. For example, while students from outside the USA and the UK were more comfortable thinking and discussing in terms of stereotypes and often used this type of representation as a starting point to frame a phenomenon, students that received their schooling in Anglosphere educational systems (irrespective of nationality) were militarized against this type of discourse and would refuse to engage in discussions in that direction. Similarly, discipline-specific ethics and praxes exposed difficulties in finding common ground – while STEM and design subjects can prefer "solution-oriented" approaches and defining and following a specific plan, fine arts students appeared to be more "experiment-oriented" and preferred exploratory practices to rigid action plans. Finally, the groups contained a mix of students who enjoyed

theory and supporting their practice through concepts and in-depth academic research and students who prioritized intuition and tended to reject theory and research, preferring to focus on “pure” creativity.

In those discussions, I used semantic description, in the models proposed by Hjeltmø (1968) and Greimas (1986), to dissect the “offensive” propositions and discourses into inventories of messages belonging either to the surface or deeper level. Once the “problematic surface” was eliminated, we could look at the structural level of what was being communicated, from which we could attempt to exchange at the level of mechanisms and values. In this process, students not only began to gain insights into what’s “inside” the world of Others but also to be able to understand that, underneath the superficial layer of discourses, narratives and values are often convergent – and vice-versa, when there was agreement at the superficial level but something seemed “off,” they were able to identify that different individuals arrived at the same surface through distinctive semio-narrative levels.

In Lotman’s (1992) image of the *explosion* and Floch’s (1995) reading of Jakobson’s emergence of the poetic language, the operation of cultural translation includes various steps in which concepts, practice, and processes, are disassembled, in a procedure in which fragments are selected, reassembled, and refined into a third form. This third manifestation emerges from individuals’ “pure” experiential world, which is at first destroyed in the clash with others; through the mediated process of understanding (instead of resisting or polarizing) the structural mechanisms of what clashed with them, students begin to find points of intersection where one sphere can penetrate the other. Finally, this union of fragments that are no longer either of the initial spheres reemerges and redefines itself as another sphere, which contains elements from both and none: the effort to combine spheres, at times, exposes areas of lack, causing the need for even more spheres to join the assemblage. For Lotman (1990), the moment where new meanings are created and tested happens at the border, an image in which *creativity* literally occurs “at the edge of chaos” (Kull 1998). Interdisciplinary innovation, thus, can be understood as the intentional effort of harnessing the chaotic intersection of borders.

The forms through which this process took place in practice were varied and, from my standpoint as an experienced educator, extremely touching to watch. Some students found themselves completely abandoning their own specialism and jumping headfirst into a role they had never experienced before, such as a student from the MA Painting who ended up acting and modeling in their project and discovering an entire set of talents and skills that were, to that point, untapped. In another team, students engaged in workshops through which each team member could experiment practices and processes of other team members or that were necessary for the final output, not only learning new skills but taking the task of phenomenally experiencing the Other through their profession quite literally. The

most dominant feedback from the project, however, was about the construction of affect between team members, which had the effect of softening crystallized opinions, worldviews, and binary inclinations individuals brought into the module. A Service Design student, for example, declared they had no idea how conservative their views used to be; going through this experience provided them with the opportunity to expand their grasp of concepts and ideas, and reframe their specialist practice.

One of the most hyperbolic results of this process was the emergence of a completely new form that was “non-synonymous” with the professions in the team: an educational escape room, ideated and realized by a team formed by students from the MA programs Architecture, Contemporary Art Practice, Innovation Design Engineering, Painting, and Service Design. Although the team contained, between themselves, some of the necessary skills to create the project, some team members had to bend their own lines to take on new roles: the project required, for example, in-depth research into the ethics of conducting subjects in an experience in which they would be intentionally misinformed, potentially leading to stressful responses and conflicts between participants. Equally, all team members had to seek knowledge in education and pedagogy, which was a missing element in the group’s pool of skills and professional experience. That project showcased an exemplary engagement not only within the team, where all the participants showed openness and willingness to experience the project through the lenses of other specialisms, but also with external networks that would permit them to complete the gaps in their skill sets, resulting in a clear example of how a genuine interdisciplinary form can emerge.

At times, the response to “bending the line” revealed new directions to subjects, uncovering skills they were not aware of and could not have experienced unless through the crisis caused by the interdisciplinary encounter. At others, individuals had the chance to dive even more deeply into their specialism; however, this newfound depth included an expanded lens containing new perspectives and the appropriation of tools and practices acquired through contact with others. Either way, the six teams in my cohorts reported positive, enriching experiences that, both individually and collectively, fulfilled the aim of creating intentional “cracks” in dogmatic modeling from various sectors, allowing subjects to develop the valuable competency of dialogue and to *feel* from the perspective of the Other.

5.3 Reviewing the experience

In our last contact as a group before final submissions, in an open session the tutors could use how they saw fit, I decided to use the session in preparation for the

individual reflective statement, planning an activity in which we could share our impressions on the experience with *AcrossRCA* to this point. Because my cohorts had had a very intense exchange with their peers, I also felt it was important to share a moment of closure of our collaborative relationship – which, for me, also marked the completion of the supervision. Like the conclusion of a text is the introduction in reverse, with the added insights the body of text was able to uncover, this session was designed to be the mirror of the first session. Students were offered three reflective prompts that aimed to re-engage them with the start of their journey, asking themselves what happened (or didn't happen) from their initial expectations, and a chance to reflect on the collaboration with their teams for the past three months. The three prompts, to be answered by every student and myself, were:

1. How did my views on “Justice, Equality and Misinformation” change since the start of *AcrossRCA*? What was the role of my project/team in this change?
2. What fears and expectations came true (or not)? How did this help me to know myself, my skills, and my competencies better?
3. What was the most valuable thing I have learned? How did this help me expand the limits of my practice/profession?

My own answers to those questions focused on my (genuine) surprise at how the outcomes produced in my group differed from the habitual discourse around justice: while I expected students to come up with charged and obvious/serious responses, my cohort took completely unexpected routes that were at times ironic and humorous, and at times poetic and *esthesis* – such as the one team that ended up being selected to participate in the *AcrossRCA* exhibition, producing a multi-script and multimedia interactive book, promoting intercultural, interlingual, interscript, intermedia, and intersubjective dialogues. For question 2, I revealed my shock about no one crying or wanting to change teams and, yet again, a genuine surprise at how well conflict was managed to that point; overall, my expectations had been surpassed, and the collaboration with the six teams, their distinctive projects, and their unique dynamics, backgrounds, and collaboration styles had been a true engine to expand my knowledge and specialism, at times converging and at times forcing me to engage with sources and resources that helped me to reframe the grasp of my supervision potential.

The feedback shared by the students was extremely moving, and many of them referenced the team-building dynamic as a pivotal aspect of the project and something that allowed them to create the foundations to exchange with others from a safe place. A cluster of students had similar responses around having learned only half of what the project had to offer, stating that the remaining two months of collaboration towards the final submissions would perhaps teach them the rest, but that they had also understood, through this experience, how limited their views initially were, how much there was to learn through experimenting in the practices and

process of others, how much the unique perspectives of others had to contribute. A couple of students also remarked on how they were oblivious to the ways in which backgrounds and professional specialisms create differences, and how each profession has its own “reality,” which brings with it ways of communicating – both sharing and listening – and ways of doing that can create friction in the collaboration.

This process of rethinking one’s own practice also appeared, in their shared reflections, as an engine to rethink the theme of “Justice, equality and misinformation” itself: it is more than politics, media, and the legal system, going deeper into the aspects of collaboration and exchanging ideas, making sure all team members are heard, that all suggestions and feedback are considered. Some students who initially came across as more invested in the theme shared how they passed from a place of anger and activism to openness and understanding, putting themselves in the place of others instead of polarizing on divergent views – one particular overseas student was forward about how the experience made them realize the narrowness of their own views prior to *AcrossRCA*, and the expectation that polarization and conflict would rule when, in reality, what they found in myself and the group was understanding and affect.

From individual professional perspectives, many students shared insights about the transformation in how they view and experience leadership: while some teams organically required one of the members to step in as a leader, other individuals, paradoxically used to being the ones deciding everything, had the experience of trusting a collective’s ability to horizontally and synergistically make things work. Other debates around skills – such as the fear of digital tools or the possibility of not being “creative enough” – reemerged reframed, with students talking about the support they received from others, the opportunity to incorporate new tools within their specialism, and the potential impact this experience would have in their specialist final major projects. Finally, others shared their experience about how communication challenges – including the fear of speaking – were overcome, and it was easier now to share in a group knowing that others were receptive and willing to overcome difficulties, whether that meant “language barriers” or “chaotic ideas.”

The most surprising feedback, however, came from the same-nationality team. While the *AcrossRCA* unit and theme leaders feared that monocultural teams would not provide the opportunity or environment to experience collaborative challenges, this was the exception that invalidated the rule. One of the students in this group spoke candidly about how others would assume they had no problems since they could communicate in the same language and agreed upon cultural values. However, once the communication and cultural differences were eliminated, the teams could experience the professional differences at a more nuanced level. Equally, through their research, concept, and realization, it became clear to them that, by *not* being a culturally and linguistically diverse team, they found themselves knowing they were missing something but lacking the tools (other than my supervision) to identify what that was. Thus, their collaboration

was marked by a *fear of the Outside*: not in the classic sense, of wanting to shut out the Other, but in the reception of their output as potentially offensive, culturally inadequate, or purely and simply inaccessible to the audience. Through the experience we created, another semiotic principle appeared to be fundamental: it is not only *presence* that is significant, but the meaning of *absence* or what is not manifested in the discourse is also a fundamental piece, and an equal driver of challenges and conflicts.

6 Closing remarks

When seen through the concepts discussed in this article, the act of educating could be defined as the intersection of various phenomenal spheres, in a process that is marked by a chain of explosions and reassemblages. At least two *Baupläne* or developmental algorithms are in clash: the student's and the tutor's; at least three *Umwelten*: the student's, the tutor's, and that belonging to the knowledge specific to the discipline. Learning is the effort to create a third (or fourth...) space, an acquired, common language between knowledge through the tutor's *Bauplan* and knowledge through one's own *Bauplan*, which, if done right, will enact a degree of expansion of one's *Umwelt* – as well as that of the knowledge. Being “educated,” thus, means having one's phenomenal world expanded and tweaking one's algorithm to include new functions, new operations, and new possible computations of knowledge.

The present case study is one of the examples of how biological images can accommodate relations that belong to the linguistic vocabulary which, in turn, can accommodate wider relations of communication and value exchange in professional and pedagogical relationships. However, biosemiotics alone doesn't contain all the tools: as I hope to have demonstrated, it is in the articulation of these concepts with readings of the structuralist tradition – Greimas' generative method, or Lotman's phenomenal understanding of culture – that a holistic understanding of an object of research or the construction of practices can begin to be shaped.

The sections above presented my reading, through the filter of my unique *Bauplan*, of those theories and their articulation. To close, however, I would like to include some of the readings presented by my students, and how concepts such as *Umwelt* and *semiosphere*, or principles from generative semiotics appear in their own vocabulary. For a student from the MA Painting, the dynamics developed in the unit facilitated each one to “find an environment”. According to a Jewellery and Metal student, collaboration is “more than each one doing their part individually”. A Digital Direction student, who was also profoundly touched by Anna Tsing's *The mushroom at the end of the world*, concluded that “education, like sustainability, is also a problem of ecosystems.” An Innovation Design Engineering student shared that the biggest challenge in their experience was to learn about “things out of our control,” and how good relationships

were fundamental in mitigating these; another student from the same course agreed with those statements, including that the “doing” changed their views about the theme, and how other passages – from “activism” to “response” and from “reading” to “experiencing” – were fundamental in their trajectory. An Information Experience Design student talked about how views can reverse after we come in contact with them, what they framed as “the appearance of words,” and how it shifts through the perspective of different majors. Finally, another student from the same course talked about how we can never really grasp what a concept’s “real” meaning is.

As tutors must develop their skills of translation, offering students a “safe environment” to encounter another sphere, the cycle must be completed, by acknowledging what translations the students themselves have created in their act of learning and creating a common space in which knowledge itself, knowledge according to the tutor, and knowledge in relation with their own unique phenomenal world are conciliated. More than “having knowledge,” teaching requires the ability to comfortably inhabit various *Umwelten*. To teach interdisciplinarily, this ability needs to be further enlarged through the softening of the borders of one’s own *semiosphere* and accepting the invitation to enter the space of Others (and inviting them in).

The experience of adapting my practice to accommodate *AcrossRCA*, besides allowing me to create genuine contact with 30 extraordinary individuals, deepened my “intuitive” understanding of semiotics as a discipline containing the key to unlocking the urgent dialogue not only between knowledge areas, but, equally, between professions and sectors. Thus, beyond a model for education, the concepts and practices described throughout this manuscript are also useful in supporting professional team-forming and interdisciplinary and intersectoral collaborations in universities, organizations, and businesses, reconnecting with the awareness of semiotic and pedagogical practices beyond the boundaries of the classroom.

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