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A Contemporary Pedagogy of Drawing

Howard Riley

Abstract

This article reviews 20 years of attitudes to drawing pedagogy, and looks forward with a studioful of post-pandemic optimism. It reiterates the importance of drawing in art schools as the most direct and economic means of nurturing our *intelligence of seeing*. Throughout the period, neoliberal policies directing the UK higher education curricula towards market-oriented criteria of success have eroded the foundation of a visual arts pedagogy: the exploration of the perceptual, and its communication through visual language; educative activities of wider import than market concerns. An articulacy in drawing – *visualcy* – is fundamental to human culture, let alone preparation for professional practice in the visual arts and design disciplines. A remedial pedagogy is proposed, structured upon the two fundamental theoretical bases of visual perception and visual communication, illustrated with students' drawings and the author's efforts to practise what he preaches.

Keywords

Drawing; Pedagogy; Intelligence of seeing; Visualcy; Neoliberalism; Creative arts economy.

Introduction

Some 20 years ago, as the *Journal of Visual Art Practice* was emerging, an optimism about drawing pedagogy in UK art schools appeared well-founded. The 1998 Loughborough conference *Drawing Across Boundaries*, where Richard Wollheim (1998) explained "why drawing is interesting", had been an indication, followed by the Wimbledon *Drawing Symposium*, November 2000, marking the opening of their Centre for Drawing. In February 2002 the *Drawing Research Network* held its first symposium at Kingston. I contributed to all these events, as well as a January 1998 presentation at the Royal College of Art (RCA), where Deanna Petherbridge had inaugurated the Centre for Drawing Research in 1995.

But in the same year as the first issue of this journal, 2001, the RCA Centre closed after the Trustees of the College turned down an offer of financial support for a permanent Chair of Drawing (Petherbridge 2019,14). By 2010 the Wimbledon Centre too had lost impetus.

Coincidentally (or perhaps not), during that first decade of the century the term 'neoliberalism' was entering common vocabulary (Maisuria and Cole 2017, 604), and in the time since, its fundamental dogmas 'self-interest' and 'marketisation' (Maisuria 2014, 287), driving government policies, have become 'naturalised' in the H.E. context. The effect upon the art school curriculum is ominous: the increase of attention to entrepreneurialism and competition in an artworld market context is usurping time previously allocated to drawing, causing a decline in drawing ability confirmed by recent UK surveys (Fava 202019; Owen 2020). This article offers a contemporary approach to drawing pedagogy, emphasizing its prime function in nurturing an *intelligence of seeing* (Riley 2001) appliable to all disciplines within the creative arts sector and beyond. The cultural importance of such a project is evident in the succinct observation of the first professor of linguistics in the UK, John Rupert Firth (1937, 45): 'Speech and drawing are nine-tenths of humanity.'

In the first volume of this journal (Riley 2002,150) I proposed *visualcy*, a neologism akin to literacy and numeracy, describing an articulacy with visual elements in both composing and interpreting drawings. Recent research indicates the roots of this faculty:

> …evolutionary survival pressures, recruiting the functions of symbolic cognition and the imagination, contributed to the rise of the earliest arts… utilitarian application of ochre sparked imaginative expansion into body painting displays.
> (Zaidel 2020,71)

Cognitive neuropsychologist Dahlia Zaidel's research establishing the reasons for human mark-making prompts me to probe the provenance of present-day educational priorities: no-one would challenge *literacy* or *numeracy*, but their progenitor, *visualcy*, is still barely recognized, despite W.J.T. Mitchell's usage (2008), and my own recent elaboration (Riley 2021). Visualcy relates to the oldest evolutionary functions of symbolic cognition and imagination: finding drawn equivalents for perceptual phenomena and our attitudes towards them; a shareable means of drawing out alternative representations of the spatial and temporal relationships between the individual and their physical and social environments, a

means of visually reconstruing the commonplace, a means to new knowledge beyond the reach of discourse. As Sunil Manghani (2020, 326) argues, in favour of the figurative, "…discourse falls short. It is a closed system of meaning limited to what can be read", endorsing Jean-François Lyotard's (2011) *Discourse, Figure* an earlier elevation of the figurative realm over the discursive because of its semogenic potential, facilitating meanings that have never been anticipated, let alone existed before.

Acknowledging research (Zaidel 2020, 2016; Mattson 2014) reaffirming drawing as a fundamental "evolved behavioral predisposition" (Dissanakaye 2016,123), this article argues its nurturing is essential to visual arts practices, based upon the following premise:

> The primary endeavour of drawing pedagogy is to impart knowledge of, and to stimulate inquiry about vision; the structuring of light and materials in communicable forms through experimentation with processes of visual perception and visual language so as to develop cognitive abilities relevant to the production of perceptually- and conceptually-intriguing[1] work in the widest range of materials and media, affording new understanding and knowledge of our world.

After all, the one domain of inquiry distinguishing the visual arts from other disciplines is surely that surrounding the faculty of *vision*. And the most direct and economic means of engaging with, and communicating results of that inquiry in a pedagogical context is the language of drawing. By the way, this position does not obviate other activities, for example the performance choreographed by Madeleine Lohrum Strancari, winning the *Trinity Buoy Wharf Drawing Prize* 2020, but locates them peripherally, exploring boundaries between established disciplines. An online discussion of the prize hosted by the Arts University Bournemouth 29 April 2021 titled *The Grammar of Drawing*, prompted me to elaborate: having established the credentials of drawing as a *bone fide* language in this journal (Riley 2019), in terms of the systemic-functional model of language developed by Michael A.K. Halliday, the leading socio-linguist until his death in April 2018, I define its grammar as a system of "syntax-morphology" (Halliday 1978, 43). Syntax refers to the culturally-specific rules governing the combination of the elements of drawing, for example syntagmatic

conventions such as geometric projection systems or the juxta-positioning of contrasting shapes of textures, tones and colours producing illusions of depth; morphology refers to the variations of form available in each drawn element: for example, the variety of line qualities indicative of choices from the paradigms of mark-making implements and textured grounds. Table 1 illustrates the dual processes of selection and combination which facilitate meaning-making in all codes of communication, here specifically related to drawing:

Paradigms of Elements (Selection)	**Syntagms of Elements (Combination)**	**Communication**
Point Line Shape (2D) Texture Tone Colour Plane	Contrast Proportion Scale Pattern Rhythm	Spatial depth Force Direction Movement Volume, Mass, Weight Balance Symmetry Structure Form (3D) Surface properties Observer's position(s)

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Table 1 Combinations of selected elements communicate meanings.

Philosopher Patrick Maynard (2005, xv) observed "…when photography receives much public notice…little is said directly about drawing. But drawing is far more important than photography". He was referring to its function as the fundamental stage of all manufacturing processes, but research since has confirmed a much wider area of influence: how drawing enhances specific acuities; judging angles and proportional relationships, improving visual memory (McManus, Chamberlain et al. 2010); changes in brain structures pertaining to fine motor control, procedural memory and visual imagery (Chamberlain, McManus et al. 2014); Aaron Kozbelt and Justin Ostrofsky (2019, 588-9) report "… skill in drawing appears to be associated with domain-specific and domain-general advantages in visual perception, attention, knowledge and decision-making". Not only these, but the study of art history is also enhanced (Qvarnström 2019). Even beyond the visual arts, argument for sustaining a pedagogy of drawing is equally imperative: Sally Wu and Martina Rau (2019) review multiple studies indicating how drawing benefits learning across STEM disciplines.
Such research evidence affirms a fundamental intelligence, evolved for the enhancement of our species' development. An intelligence with provenance:

The Intelligence of Seeing

> Mark making has been the principle (*sic)* mode of our species' capacity for material signification and creative material engagement.
> Malafouris (2021, 95)

The emergence of visualcy in human culture occurred long before literacy and numeracy: we have been drawing for c73,000 years.[2] The reasons offered are many: Gordon Childe (1942, 48) suggested the Palaeolithic "artist- magician" who, by capturing its image, ensured capturing the beast for food; but there is "…little correlation between the depicted species and excavated food remains from camp sites" (Whitley 2009, 30). David Lewis-Williams and Thomas Dowson (1988; Lewis-Williams 2002) claimed that a shamanistic altered state of

consciousness induced entoptic phenomena, projected and fixed on cave walls, refuted by Paul Bahn (2010) and Patricia Helvenston (2014, 2015); Steven Mithen (1996) theorised that humans evolved three domains of intelligence; technical, social, and natural history, which, when combined, triggered a 'cultural explosion', the visual evidence being cave drawings; Iain Davidson (2020) identifies drawing as the second earliest of six communication revolutions: language (speech), iconic imagery, writing, printing, communication at a distance, and the digital electronic revolution. Derek Hodgson and Paul Pettitt (2018, 605) offer a plausible sequential argument:

> 1 Humans evolved to 'think about' animals due to their critical importance to the survival strategies of Pleistocene hunter-gatherers. As a result of this, the brain established a 'hair-trigger' response with a tendency to interpret natural features as animals.
> 2 Art probably evolved as decoration of the body and processes associated with it, providing the means (pigment, engraving) for creating marks, e.g. the use of ochre and shell necklaces that pre-date the Upper Palaeolithic…It makes sense that the earliest manifestation of art should be peripersonal.
> 3 Caves and other stimulating environments activated the brain's 'hair-trigger' mechanisms, acting on its projective ability in terms of elements of the body (e.g. handmarks) and animals, stimulating the transferral of images from the body to objects and places.
> 4 The earliest of such 'transferred' art related to the body, i.e. non-figurative hand and finger marks, representing a direct extension of the body (or if preferred, self) to the external world. This was done by Neanderthals and, later, by *Homo sapiens,* although whether the two are connected remains to be seen.
> 5 Later, caves, rock-shelters and open-air landscapes, triggered inherent projective capacities – and hence the completion/creation of animal depictions.

More recently, doctoral research (Sakiro, Pettitt and Ontañon 2020) hypothesises that morphological features of cave surfaces prompted the addition of drawn marks to 'bring out the beast', enhancing the resulting three-dimensional scene with a sense of animation as viewers perambulated the spaces. ('Walkies' before 'Movies' or 'Talkies'!)

Whatever the reason, the drawn evidence indicates "a foundational evolved human capacity" (Dissanayake 2016,101), an innate compulsion demonstrated from our early childhood, vital to the cultural development of our species. An activity naïvely regarded as anachronistic in

our age of instant imagery, in danger of being reduced to a whimsicality of pseudo-therapeutic activities, or as egotistical expression in the context of fashionable art market trends, simply because the case for drawing as relevant to a wider cultural credibility is not articulated clearly enough for the current crop of education administrators (political and managerial) to recognise.

The concept of the intelligence of seeing, which I introduced at the first symposium of the *Drawing Research Network* 2002, can be understood as a process of *subject-reflexive* action: behaviour informed by reciprocity between visual stimulus and response, informed in turn by a sense of anticipation and understanding of future consequences of planned action, as opposed to *subject-reactive* behaviour exemplified by the eye-blink in response to a puff of air (Witkin 1974,14). In the context of drawing pedagogy, intelligence of seeing may be construed as relating two of the basic human activities crucial to our survival; firstly, the perceiving of environment and our positions within it; secondly, the drive to communicate - share, teach – those perceptual experiences. A first indicator of such intelligence is a versatility of vision transcending what John Halverson (1992, 389) identified in cave drawings as "fundamental features of visual perception… figure-ground distinction, Gestalt principles of closure and good continuation", a versatility informed by awareness of how to extract different levels of information from the scene observed: haptic, distal and proximal levels, elaborated below. A second indicator is the degree of visualcy in the ability to communicate a range of drawn equivalences for perceptual experiences, relevant to the aims of the drawing, functioning to convey the drawer's attitude, as well as positioning viewers in terms of their mood and attitude towards the subject-matter represented, thus facilitating social interaction, a social semiotic (Halliday 1978). Both these indicators are capable of being nurtured through a pedagogy of drawing, as we shall see.

Nurturing *Visualcy* through Drawing

The premise stated in the Introduction is in danger. Attitudes to drawing in any given period are fundamentally related to the "*structure of feeling"* in that period. Raymond Williams' (1954, 21) phrase is applied here as a set of received attitudes which hegemonically serve to naturalise cultural ideologies, cloaking the creed dominating the last 20 years, the effects of which the UK *Group for Learning in Art and Design* (GLAD 2019) coyly termed "instrumentalist governmental metrics", alluding to the neoliberal regime following the Browne Report (2010) on arts education. David Willetts, Minister for Universities and Science 2010-14, champion of neoliberal policies, had decreed, not so coyly, in 2013: "…unleashing the forces of consumerism is the best single way we've got of restoring high academic standards" (Willetts, in McGettigan 2015, 2)[3]. But just as design and craft courses are becoming more aware of opportunities in a 'circular economy' (Kneese 1988, 281-2) challenging the mass-production/-distribution/-consumption/waste economic system and its concomitant need to instil a desire to acquire *via* commodity aesthetics (Haug 1986), others such as the fine arts provide opportunities for enriching social engagement and aesthetic consciousness, their cultural worth best assessed using criteria other than market values. Dean Kenning (2019,116) expresses concern about the Browne Report's assumption that higher education equates to higher employment and monetary remuneration:

> There is immediately a problem with the student-as-rational-investor model when it comes to creative degrees such as fine art: they are a seriously 'bad bet'. Government commissioned research published in 2011/12 showed that the 'graduate premium' – the extra lifetime earnings of graduates compared with non-graduates – simply does not apply to students of Art and Design courses…

No university can operate independently of its socio-political context, but the trend of foregrounding business strategies raises specific concern about consequences for art schools - perhaps unintended? - of reducing the time allocated to drawing activities for reasons noted early by Petherbridge (2010, 232):

> More recently, under the democratic, pluralistic but also hegemonic imperatives

> of universities…individual practice in art departments has become increasingly fragmented through modular teaching and self-directed learning, with students looking outward to the art market and its officiates.

Modules exhorting notions of 'enterprise' and 'entrepreneurship' aligning the curriculum with a competitive commercial artworld whilst abrogating responsibilities for nurturing visualcy *via* the teaching of drawing.

I would advocate a pedagogical focus upon the prime function[4] of visual art; that of challenging the complacency of everyday seeing so that our experiences of the world may be construed with flexibility resulting in fresh insights, understanding, new knowledge.

> Teachers in the contemporary art schools are not affecting ignorance in order that their students may come to personal conclusions: their ignorance is all real…They do not begin to know what they do not know.
> (Willer 2018, 30)

Jacob Willer's stark generalisation demands a robust rebuttal. Perhaps some are ignorant of the ideology driving curriculum changes, but many teachers are quite capable of demonstrating versatility in aligning practice with its fundamental knowledge bases of visual perception and visual communication, and are aware of contemporary research to support them: most recently in the work of Philippa Lyon, Patrick Letschka et al. (2018), Ludwig Qvarnström (2019), Kelly Chorpening and Rebecca Fortnum (2020) and Seymour Simmons (2021).

As far back as the 1850s, the pedagogy of drawing has been aligned with the perceived requirements of its social context. The main alternative types of art school curricula have been identified by Nicholas Houghton (2016), Table 2 correlates them with their philosophical bases, so that the historical shifts in attitude towards the social uses of drawing are related to the prevailing philosophical positions, from the notion that reality is an objective, unchanging state, to a more relativist position, from which realities are construed as socially-constructed:

PHILOSOPHICAL BASE	ONTOLOGICAL ATTITUDE TO DRAWING	EPISTEMOLOGICAL ATTITUDE TO DRAWING	HOUGHTON'S (2016) SIX CURRICULA RELATED TO TEACHING OF DRAWING
		Analytical	**1 *Apprentice curriculum:*** Before Henry Cole's 1853 network of art schools, drawing considered as craft. Skills passed on from master to apprentice. Orthographic projections.
1 Rationalist	OBJECTIVE Reality as absolute	Observational	**2 *Academic curriculum:*** Legacy of Italian Renaissance: first art academies designed to raise the social status of artists. Application of anatomical knowledge, perspective geometric projection. Distance-values emphasised. **3 *Formalist curriculum:*** Bauhaus constructivism, epitomised by Moholy-Nagy and later, the 'basic design' movement in England. Application of measurement techniques based on the natural sciences. Ruskin's "innocent eye". Coldstream's "measured verification". Haptic and proximal values.
2 Empiricist			
3 Subjective Idealist	SUBJECTIVE Reality as an individual experience	Psychological	**4 *Expressive curriculum:*** Bauhaus expressionism, epitomised by Kandinsky and Itten, advocating drawing as self-expression.
4 Pragmaticist	EXPEDIENT Reality as continuous flux, from which the mind selects according to the interests of the perceiver at the time.	Expedient	**5 *Conceptual curriculum:*** Post-Duchamp, post-1970 deskilling. Concept over percept. Art-Language. **6 *Professional curriculum:*** Emphasis on entrepreneurial skills, marketability, employability.
5 Constructionist	RELATIVIST Realities recognised as social constructions, including the above categories	Semiological	Cross-cultural visual studies. Explicit experimentation with both viewer-centred and object-centred representations. Ecological relationships. Distance, haptic and proximal values.

Table 2 Philosophical bases related to the teaching of drawing

A Constructionist philosophical base embracing the range of ontological positions identified in Table 2 facilitates experimentation with the two main theories of perception; the computational theory proposed by David Marr (1982) and the ecological approach of James J. Gibson (1979), and is therefore advocated for a pedagogy of drawing underpinned by a

carefully structured 8-step approach to observational drawing, the importance of which is highlighted by Petherbridge (2010, 233):

> Learning to draw, while no longer a privileged activity in either school or specialist art teaching, remains an activity of enormous importance and potency for education as a whole. Learning to observe, to investigate, to analyse, to co
> mpare, to critique, to select, to imagine, to play and to invent constitutes the veritable paradigm of functioning effectively in the world.

The steps of this strategy are familiar to all competent teachers of drawing, but rarely coordinated in an organised way. Here is such a plan, tested in a series of drawing workshops held at the RCA, 2012-2016. The workshops were inclusive, specifically designed for both dyslexic and non-dyslexic students by the author and Qona Rankin, coordinator for dyslexic students at the RCA (Rankin, Riley et al. 2017; Rankin and Riley 2021). The workshops are based upon post-doctoral research reported in Riley (2014) and Chamberlain et al. (2015) which indicates a correlation between the ability to draw objectively and the development of an intelligence of seeing, explained to students as an awareness of the inter-relationships between ways of seeing, social belief systems and ways of drawing. The workshops are structured upon procedures adapted from Sherrie Nist and Kate Kirby (1986), reported in Nist and Donna Mealey (1991) and Tilly Mortimore (2003). The eight-steps:

1. To focus attention upon the subject-matter and its relationship with the surroundings (*figure/field* relations); relationships of *format* (portrait, landscape, square, or other), and *scale*, (related to the choice of drawing medium, since medium dictates scale); and positioning of the drawing within the picture-plane (the drawing sheet itself) relevant to the *main axes* of the drawing sheet: the central vertical axis, the central horizontal axis, the two diagonal axes, and others, such as the Golden Section.
2. To construct a general structure, or *scaffolding*: in terms of life-drawing, this would relate to the main axes of the model's pose, using, for example, the '*N-grid'*, lines running across the figure that connect salient points such as nose, nipples, navel, (k)nees, and (k)nuckles. These axes might be the vehicle by which students hone their skills of accuracy in drawing angles and lengths in proportion so that the repetitive, low-level exercise is perceived to have contextual meaning for the student.
3. To understand and apply concepts such as *contrast boundary* in place of the common term 'outline'. This immediately engages the student with the variety of tonal and textural values across the whole subject-matter and, in particular, allows the student to notice how the contrast boundary fluctuates at the edges between figure and field. The concept of *negative space* (spaces between those items in the visual field normally labelled with language), can also aid students to look without language, to apply

specifically non-verbal methods in the process of drawing. Thirdly, to pay attention to the visual vertices, simply described as *T and Y junctions* apparent as edges where two surfaces are occluded by a third. (Biederman 1987; Ostrofsky and Kozbelt 2012)

4 To repeat these first three steps at the beginning of every new drawing. The tutor might demonstrate the steps at this point.
5 To discuss with the tutor the process under way on the drawing board.
6 To repeat the recommended strategies with support from the tutor.
7 To draw independently at unsupervised open-access drawing sessions.
8 To reflect upon and critically assess the practices and strategies in order to reinforce them. This procedure takes the form of a group pin-up crit session with guidance from the facilitators.

Results and examples of drawings produced from the workshops are reported in detail in Rankin, Riley et al. (2017). Table 3 shows a generalised summary, indicating the positive shift in attitudes towards key topics related to observational drawing.

	Dyslexic Students		Non-Dyslexic Students	
	Pre-workshop	Post-workshop	Pre-workshop	Post-workshc
Seeing 'Negative Spaces' is easy	5.00	5.63	4.60	5.60
Seeing 'Contrast Boundaries' is easy	3.00	4.13	2.00	3.80
Controlling 'Proportion' is easy	2.88	3.50	4.00	5.00
Judging 'Length & Angle' is easy	4.25	5.13	2.80	4.80
Fitting drawings into the sheet is easy	2.38	4.38	4.20	5.60
Awareness of 'Main Axes'	3.13	5.63	3.40	5.60
Awareness of 'Invisible Grid'	3.00	6.00	3.20	5.40
Awareness of 'Primary' and 'Secondary Geometries'	2.38	5.88	3.20	6.20

AcrossRCA 2016 results

Table 3 Group responses Pre- and Post-workshops. Likert Scale range: 'Strongly Disagree' rated 1, to 'Strongly Agree' rated 7.

The results from this teaching model are encouraging, and indicate that the approach described here could benefit the whole education system, from primary level through tertiary level.

Five Pedagogical Approaches to the Nurturing of *Visualcy*

The next stage is to integrate the teaching model with a drawing curriculum premised upon five aspects of perception and communication theories relevant to visual art production (Table 4.) This can become the means of integrating theoretical and practical components of art school pedagogy. Since such a core curriculum was first proposed in this journal (Riley 2007), it has been elaborated:

FIVE PEDAGOGICAL APPROACHES TO THE NURTURING OF VISUALCY

1 ***Levels of Perception:*** *haptic, distal* and *proximal* values: textural, depth of field, and pattern information contained in the structure of light arrays arriving at the eyes; *negative spaces*: the shapes between objects in the scene; *contrast boundaries*: edges in the scene, visible because of different tones or textures either side of the boundary; 'T' & 'Y' junctions: pattern of edges where one surface overlaps two others in the scene (these may be seen at various levels of scale, i.e. fractal structures).
Key text: Gordon, Ian 2004 *Theories of Visual Perception.* 3rd ed. London: Routledge.

2 ***Seeing and Believing:*** awareness of how cultural beliefs inform 1) *ways of seeing,* and 2) *ways of representing those beliefs in visual work.* Geometric projection systems representing space on a flat surface.
Key text: Willats, John 1997 *Art and Representation, New Principles in the Analysis of Pictures.* Princeton NJ: Princeton U.P.

3 ***Functions of Drawing:*** *Representational* (subject-matter); *Compositional* (how subject matter is presented in visual form); *Interpersonal* (how compositional choices position viewers in terms of mood and attitude towards the subject-matter).
Key text: O'Toole, Michael 2011 *The Language of Displayed Art.* 2nd ed. London: Routledge.

4 ***Strategies of Visual Communication:*** Rhetorical tropes: metonym, metaphor, oxymoron, pun, ways of enhancing *perceptual* and *conceptual intrigue.*
Key text: Danesi, Marcel 2017 *Visual Rhetoric and Semiotic.* In *Oxford Research Encyclopaedias, Communication.* Oxford: OUP.

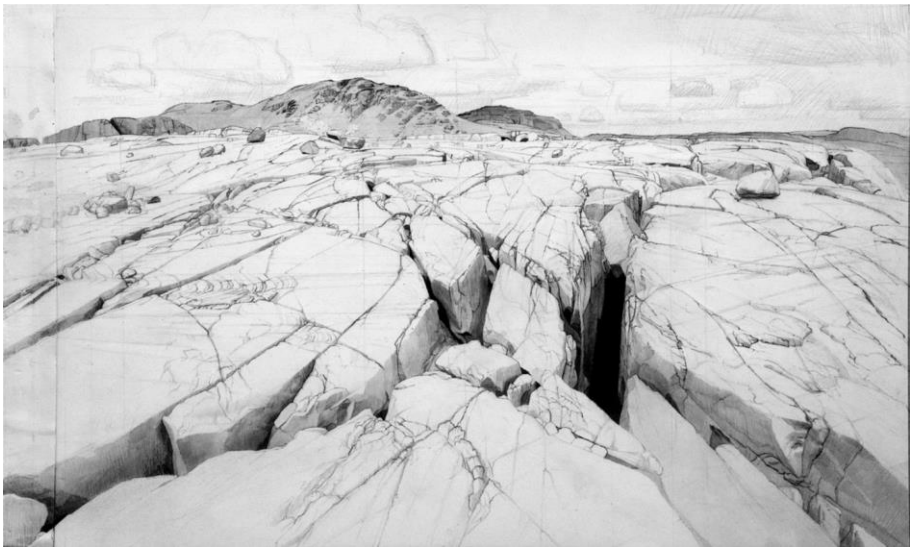
5 ***Drawing as Process of Transformation:*** from *primary geometry (3D)* to *secondary geometry (*2D) (representationalism); from cultural values into material form; from individual feelings to social communication (expressionism); from mental concept to visible percept.
Key text: Maynard, Patrick 2005 *Drawing Distinctions.* Ithaca, NY: Cornell UP.

Table 4 Five Approaches to the Nurturing of *Visualcy*.

1 Levels of Perception

> The legitimate endeavour of working artists is to practise the art of structuring light. (Gibson 1966, 238)

The fundamental condition which defines drawing is a *contraperception*, the visual equivalent of a contradiction: the dialectical relationship between the material qualities of the ground and the marks upon it which constitute a drawing, and the illusion of spatial depth conjured up by those marks upon the ground. Richard Brettell (1999,14) introduced the categories "transparent realism" and "mediated realism". *Transparent realism* plays down all indications which would otherwise draw attention to the surface qualities of the ground, so that the viewer's gaze is transported directly into the virtual space produced by projective geometries and tonal and textural contrasts. Figure 1 is a good example:



F**igure 1** Robert Newell *Harlech Grits, Towards Moel Ysgyfarnogod.* Pencil and wash on paper. 49x68.5cms

Mediated realism prioritises the surface qualities of the ground – the materiality of the mark-making medium and its supporting textural surface – before illusions of depth. Figure 2 epitomises this, in which the varieties of texture and scale of the crayon marks, and the bared surface of the paper vie for the viewer's attention prior to a reading of the scene depicted.

Figure 2 Howard Riley *Mwnt.* Coloured pencil on A3 paper.

The opposition between transparent and mediated realisms had already been addressed by the psychologist James Jerome Gibson (1979) whose explanation of visual perception involves what he termed an *ecological* approach. Gibson sub-divided his exploration of the visual perception process into two parts: the perception of the world of surfaces, edges, colours, textures and slopes; and the perception of the world of signification – of signs made upon surfaces. He argued that perception of the one is radically different from the perception of the other (Gibson 1980, xi), setting up the notion of a "duality of picture perception":

> A picture, photographic or chirographic, is always a treated surface…a plaster wall, or a sheet of canvas, a panel, a screen, or a piece of paper…The picture is both a scene and a surface, and the scene is paradoxically *behind* the surface.
> (Gibson 1979, 281)

It is apparent that Brettell and Gibson both articulate the fundamental condition which defines drawing, one which could inform and enhance the pedagogy of drawing in our art schools today.

Three levels of information crucial to visual art practice can be identified in the structure of the light arrays arriving at the eyes. Robert Witkin (1995, 63-4) identifies these as "sensory modalities": *contact* values, *distal* values and *proximal* values. They may be explored in studio or elsewhere through exercises designed to focus attention on the 'haptic level', at which information about surface qualities of texture and colour may be accessed; the 'distal level', to do with information about relative distance, size, scale and depth of field; and the 'proximal level', which provides information about the overall pattern and rhythm relationships in the visual field as a whole. The honing of such discrimination of seeing is crucial if students are to manipulate and control the degree of perceptual intrigue in their work. Drawing is the most direct means of contemplating these channels of perception. It is therefore best positioned to be the means of release from our language-based complacency of vision; it is a primary means of making the familiar strange…

An example of each level of perception is illustrated in Figures 3 – 5:

Figure 3 Haptic values. Howard Riley *Surface Qualities versus Illusions of Depth = Visual Delight.* Oil pastel, graphite on A1 Fabriano paper.

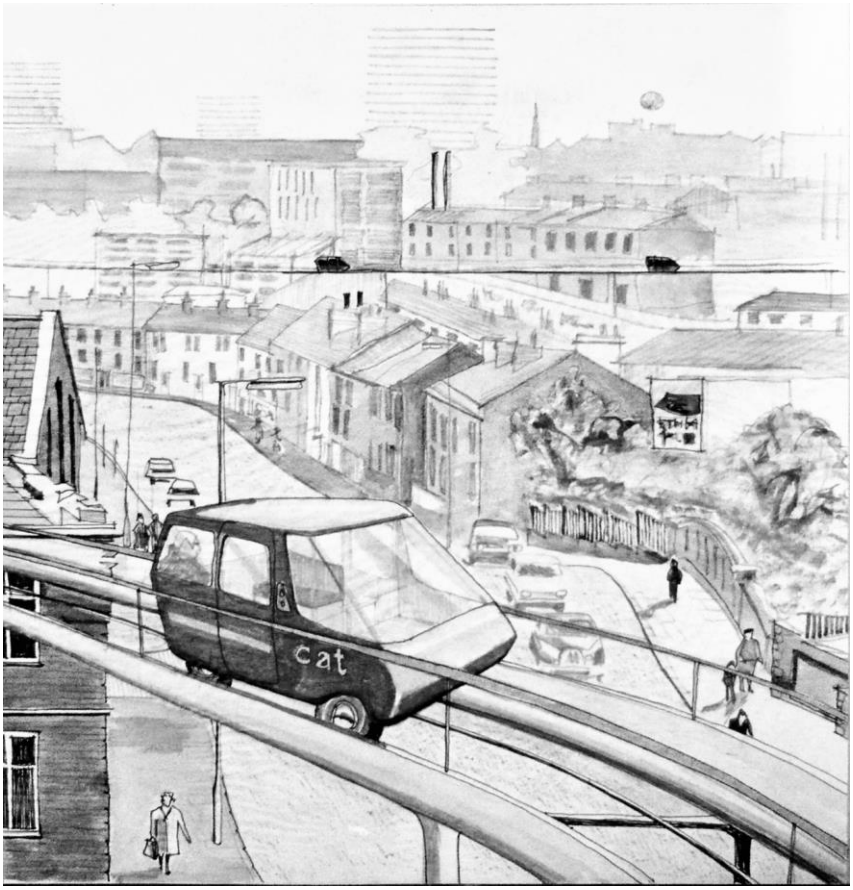


Figure 4 Distal values. Howard Riley *Coventry Auto-taxi.* Pencil, pen and ink on A3 paper.

Figure 5 Proximal values. Howard Riley *The Albert Hall from the RCA.* Pen and ink on A5 paper.

2 Seeing and believing

> Perception is a part-innate, part-acquired skill of transforming the raw material of vision into the 'finished product'; and every period has its conventional formulae and methods of interpretation for doing this. The ordinary mortal thinks most of the time in clichés – and sees most of the time in clichés. His (*sic*) visual schemata are prefabricated for him; he looks at the world through contact lenses without being aware of it.
> (Koestler 1975, 376-7)

If students are to develop the capacities necessary to manipulate the balance between perceptual intrigue and conceptual intrigue in artworks, it is essential that projects are designed to encourage the understanding that perception is capable of being 'tuned' to different levels of attention (Point 1 in Table 4), and also that it is culturally conditioned: *how we see the world is conditioned by what we believe.* (Segal, Campbell and Herskovit 1966). This is easily illustrated by showing the variety of ways cultures with differing belief-systems

about space–time, for example, have devised to represent the relationship in pictures (Hagen 1986; Willats 1997). Once students are aware of their own ontological constructs, they become more flexible about recognizing the validity of those of others, and also more capable of inventing alternative constructs for representing time, objects and space.

Figure 6 illustrates how a mixture of geometric projection systems - orthographic, oblique, perspective - invites the viewer to move towards, around and through the space. The understanding is that we experience the world from a moving path of observation, and incorporate that understanding in the geometrical constructions, unlike the assumption of a static single eye inherent in artificial perspective.

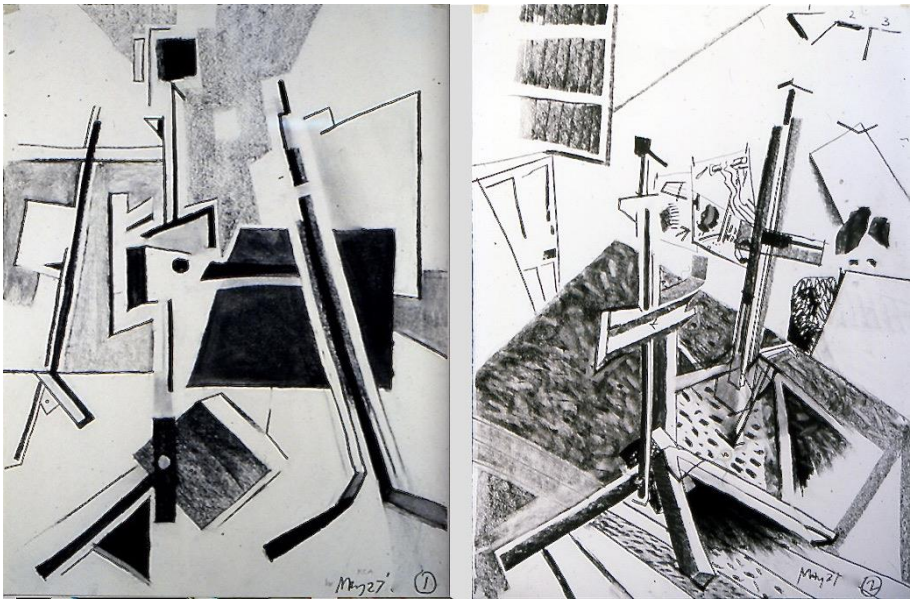


Figure 6 Howard Riley *RCA Drawing Studio 1 & 2*. Charcoal on A1 paper

Figure 7 explores the Aboriginal Australian convention of mapping important features of the landscape from an imaginary high viewpoint, using contrasts of colour and texture. In this case, the cafes and other food outlets on a university campus are identified.

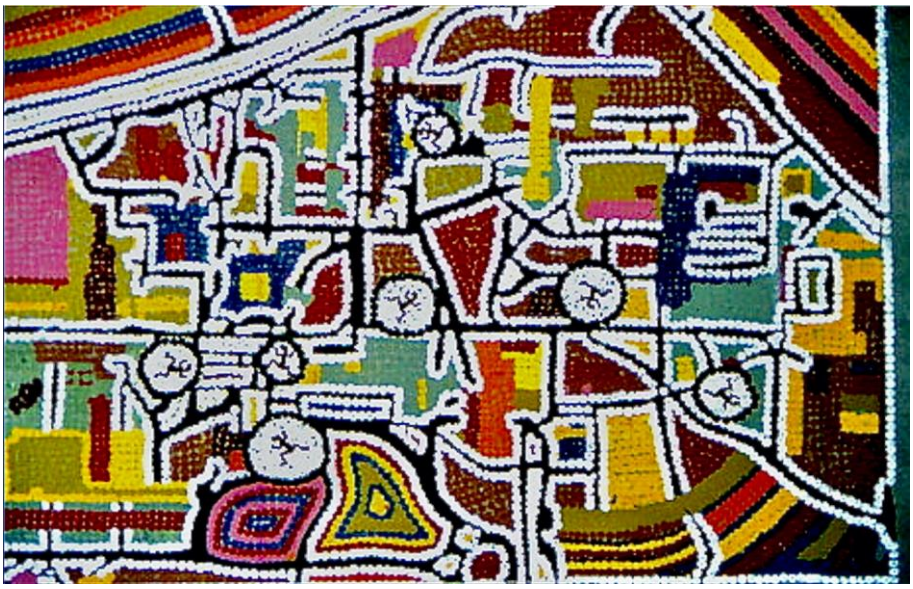


Figure 7 Samantha Geizekamp *Journey Through Space*. Gouache on A2 paper.

3 Functions of art

> …critical practice…has focused on…the *representational* content of a painting. Gestalt psychology forced a reappraisal of the *compositional* elements…but these were not related in a coherent theoretical way to what was represented. Of course,…perspective involved the relationship between the painting and its viewer,…but the recognition of *modalities* such as viewing angle, internal framing, the play of light and rhythm…was not conceived as a distinct level of meaning in the visual arts.
> (O'Toole 2005, 84)

Michael A.K. Halliday, student of J.R. Firth quoted earlier, theorised language as a socially situated, meaning-making (*semogenic*) resource. Halliday (2019, 99) elaborated the principle that language emerged at a particular moment in our evolution, and argued that its organization reflects the eco-social context of its evolution. Extrapolating from this position, it becomes possible to teach students that drawing similarly functions to construe the human experience, to construct the reality within which we live. Halliday referred to this function as the 'ideational', which embraces the ways in which we both construe and represent our experiences. Drawing also realises human relationships, creating, maintaining or changing

them, for which Halliday used the term 'interpersonal' function. But both of these functions depend upon a mode of discourse shared within the interactions: this is Halliday's 'textual' function; also known as the 'compositional', or 'poetic', acknowledging Roman Jakobson's (1958) explanation of the poetic function as the means of attracting attention to the formal qualities of the inter-communication, the message – the drawing - itself.

So, alongside the exploration of perceptual values and cross-cultural conventions for the representation of space, students can also be introduced to this powerful theoretical basis of communication. This proposal is not so daunting as it might first appear: students understand at an early stage that a mental concept, an idea for an artwork based upon some aspect of our experiences of the world, needs to be transformed into visible, tangible form in order to be shared. The teaching challenge is to impart practical methods which can facilitate such transformation. Michael O'Toole's (2005, 2011, 2019) systemic-functional semiotic model of the visual arts adapts Halliday, producing a valuable, proven aid to structuring studio practice (Riley 2008, 2017). It has been a source of some amazement to me that O'Toole's insights have yet to be applied more widely to the study and pedagogy of drawing, which may also be construed as a language (Riley 2019). O'Toole introduces the inter-relationship between the three functions: the 'experiential' or 'representational' function, the content carried by the mental concept; the 'compositional', or 'poetic' function, the practical processes of selection and combination of visual elements, materials and media in order to realise – make visible – the concept; and the 'modal', or 'interpersonal' function, relating to how those compositional choices both reflect the drawer's, and affect the viewers' attitude and mood towards the subject-matter represented. The three functions are summarized in Table 5:

EXPERIENTIAL FUNCTION	POETIC or COMPOSITIONAL FUNCTION	INTERPERSONAL FUNCTION
What is represented: Experiences of the world	The artist's selection and combination of visual elements	How the compositional choices position viewers in terms of mood and attitude towards the subject-matter represented

Table 5 *Three Functions of Visual Communication.*

Such clear structuring of the art production process may be imparted both through illustrated talks and studio tutorials. For example, in Figures 8 and 9, although both represent similar subject-matter, the choices from the paradigms of colour palette, viewing distance and focus in each image invite the viewer to adopt distinctly different moods and attitudes towards the topic; from the macroscopic to the atmospheric.

Figure 8 Amanda Maria *Plantasia project* Charcoal and chalk on A2 paper.

Figure 9 Heather Simmonds *Plantasia project* Chalk on A2 paper.

4 Strategies of creative communication

> It is evident that many devices studied by poetics are not confined to verbal art. We can refer to the possibility of transposing *Wuthering Heights* into a motion picture, medieval legends into frescoes…or *L'Apres-midi d'un Faune* into graphic art. (Jakobson 1958, 351)

Jakobson (1956) theorized the two poetic devices of metaphor and metonymy as characteristic realisations of the two fundamental processes of selection and combination through which the poetic, or compositional, function of communication operates. Metaphor refers to the description of one thing (the 'tenor') in terms of another (the 'vehicle'): in Figure 10 the negative connotations of the vehicle (the snail) are applied to the tenor (concept

of 'progress'). Metonymy refers to the process whereby one sign becomes contiguously associated with another: in Figure 11 the residual marks on each sheet are metonymic - they are attributes of the various sources of force applied to the paper.

Figure 10 Tom Alberts *Progress.* Oil on canvas, 100x80cms.

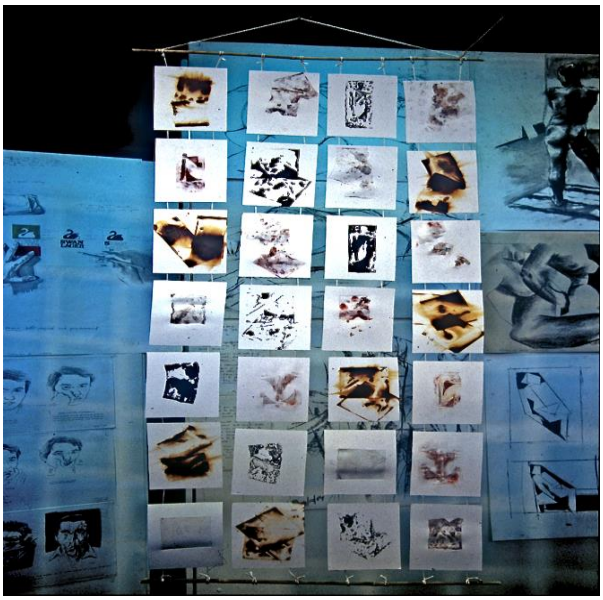


Figure 11 Ashley Hay *Metonyms of Force.* Sheets imprinted with indices of forces applied through various objects.

The poetic function foregrounds the equivalences between visual elements of a composition, producing visual pattern, rhythm, symmetries and harmonies (or their opposites), which draw attention to the formal qualities, the look of the work. In Jakobson's (1958, 358) famous phrase: "The poetic function projects the principle of equivalence from the axis of selection into the axis of combination".

An understanding of the power of these devices as vehicles to make visual equivalences of conceptual ideas will surely empower students' practice. Other rhetorical tropes can also be employed to good effect in practice, and so oxymoron, irony and pun can also be introduced and applied in students' work.

5 Art production as a process of transformation

> The Transfiguration of the Commonplace.
> (Spark 1961, 35)

Ultimately, drawing is construed as a 'process of transformation', leading to work developed through the full gamut of media and processes. Examples of the transformational process are:

• Transformation from concept or percept to artwork *via* systems of geometry, lens-based and/or time-based media or three-dimensional materials (the tradition of representationalism)

• Transformation of individual perceptions into social communication (the tradition of expressionism)

• Transformation of cultural values into material form (the tradition of art as socio-political comment, or, more contemporaneously, intervention in the social process through site-specific installations, performances, multi-media presentations)

And, crucially, the transformation of abstract concepts into visible percepts: such a process is illustrated in Figures 12-14, from the series *Seeing Through Writing*, exploring the proposition that we see the world through language; language structures our realities, we use it to structure order out of chaos:

Figure 12 Howard Riley *Seeing Through Writing 1*. Oil pastel, graphite, charcoal, pencil on Waterford 300gsm paper A3 size.

In Figure 12 the metaphor of clean-cut symbols, (incised to reveal an inchoate background), generating from the central square device connoting our multi-layered capacity for structuring order out of chaos, alludes to the function of language structuring our realities whilst masking the essence of its referents.

Figure 13 Howard Riley *Seeing Through Writing 10.* Glazed, with reflections.

Figure 14 Howard Riley *Seeing Through Writing 4.* Glazed, with reflections.

However, once the drawing is glazed for exhibition display (Figures 13 & 14), other visual relationships become apparent: between the drawing's surface, the viewer's movements and the environmental context (in these examples, purposely arranged to include references to writing!). Glass, often regarded as a hindrance to the direct perception of artworks, here provides multiples of visual focus, a metaphor for the layers of meaning available to the viewer once the foregrounded filter of language has been dissolved. Looking without language. And of course, as the viewer shifts position, a constant restructuring of the arrays of light arriving at the eyes, both from the reflective surface and the drawing itself, stimulates enhanced perceptual intrigue conducive to challenging the complacencies of seeing as well as the reliability of language.

The compositional devices illustrated and discussed here serve to enstrange writing from its referents. Thus drawing can reveal the treason – not of images (*pace* Magritte) – but of language itself.

Last Words

> … for all involved in art, craft and design education, drawing is a key skill. Teaching all pupils to draw with confidence and creativity was too low a priority in too many schools. If art, craft and design education is to play a full part in helping pupils 'make a mark' in the future, drawing can no longer remain a concern without a cause. (OFSTED Report 2011)

And what of the optimism mentioned in the Abstract of this article? The recent publication *A Companion to Contemporary Drawing* (Chorpening and Fortnum, eds. 2020) is heartening, as is Seymour Simmons' (2021) *The Value of Drawing Instruction in the Visual Arts and Across Curricula.* The continuing activities of the *Drawing Research Network* and *Tracey*, the online journal of drawing research which emerged from the *Drawing Across Boundaries* conference, are thriving, together with the international network *Thinking Through Drawing,* all of which augers well for the future.

Endnotes

1 The degree of balance between *perceptual intrigue* and *conceptual intrigue* is a useful criterion of quality assessment. 'Perceptual intrigue' is the product of tension between textural qualities of the drawing surface, and illusions of depth produced by the marks on that surface. 'Conceptual intrigue' refers to how a drawing can afford viewers fresh insights which stimulate new understandings of the theme or concept to which it alludes: the capacity of the drawer to employ rhetorical tropes in order to transcend whatever prosaic subject-matter might be represented in the work so as to make available meanings at a more profound level about our experiences of life, and the human condition in general.

2 In South Africa, a cross-hatched pattern drawn with ochre crayon on a silcrete flake is dated 73,000 years old (Henshilwood, d'Errico et al. 2018). We were certainly drawing long before we were writing; Ewen Clayton (2020) states a generally-agreed date of c5,500 BP in Mesopotamia for the first writing. In fact, our facility for depiction stimulated the very notion of written language. *Visualcy* preceded – indeed, facilitated – literacy.

3 For an analysis of how such reasoning emerged, see Mark Carney's (2020) Reith Lecture, where he charts "…how we have come to esteem financial value over human value".

4 Within the sociological tradition, theories explaining value are classed as *normative* since they attempt to establish a standard, a norm. Gordon Graham (1997, 46) reviews three such normative positions: that the value of art lies in its capacity to give pleasure, *aestheticism;* that art's value lies in its abilities to facilitate the expression of emotion, *expressivism;* and third, that art is valuable as a source of understanding, *cognitivism*. I take the view that the most socially-useful value of visual art - its *prime* function - lies in its scope for contributing to our understanding of our experiences of the world, without denying the social functions of art as a source of pleasure or a means of self-expression.

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