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Pattern and Pedagogy in Print: *Art and Craft Education* in the mid twentieth-century classroom

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Abstract

In this article I compare a set of early and mid-twentieth-century print publications supportive of the ‘new’ art teaching in schools. The educator Marion Richardson’s reflections on her use of pattern in the classroom in *Art and the Child* (1948) is considered alongside publications by artist-teachers such as Robin Tanner’s *Children’s Work in Block Printing* (1936) and Gwen White’s *A World of Pattern* (1957). The monthly publication *Art and Craft Education* first published in 1936 was a magazine for teachers of art which showcased the work being done in schools around Britain that were involved in the ‘new’ art instruction. Pattern-making in schools in these publications is positioned as a modular and constructivist form of learning encouraging multisensory and exploratory ways of looking at and making sense of the world. Ackerman (2004) outlining theories of constructivist models for learning stresses the need for children to be ‘builders of their own cognitive tools’, and I argue that the exploration of pattern offers multiple strategies for the child to explore their phenomenological experience of the world. Pattern-making is also presented as a democratic form of creativity and a means of introducing the concept of art into everyday life, inculcating an appreciation of well-made things in daily life. I argue that through the lens of this pedagogic print culture with this emphasis on the benefits of teaching pattern-making in schools a nostalgic and pastoral English arts and crafts sensibility can be seen meeting a modernist cultural agenda via psychological theories of child development, creating a distinctively egalitarian, child-centred and craft-led model for learning. Revisiting this moment in childrens’ education in Britain offers a timely insight into alternatives to the current educational landscape, with its emphasis on measuring pupil’s achievement and downgrading of creative subjects in the school curriculum.

Keywords

Pattern making

Art pedagogy

Haptic learning

Well-being

Child art

Craft

Nature

Print

Introduction

In this article I compare a set of early and mid-twentieth-century print publications supportive of what was termed the ‘new’ art teaching in schools. The educator Marion Richardson’s theories of the educational use of pattern in the classroom in her book *Art and the Child* (1948) is considered alongside the reflections by artist-teachers such as Robin Tanner in his *Children’s Work in Block Printing* (1936) and Gwen White’s *A World of Pattern* (1957). The pedagogy is folded into these self-illustrated texts and is based on the insights of these artist-teachers informed by their observations of the benefits to their pupils of including craft and making skills in the classroom. The monthly publication *Art and Craft Education* first published in 1936 was a magazine for teachers of art which showcased the work being done in schools around Britain that were involved in the ‘new’ art instruction. *Art and Craft Education* is another rich source of teacher testimony, with examples of children’s work and practical lesson plans promoting a radical creative agency in children through the use of pattern and decorative design, which is positioned as an achievable and enjoyable way of democratizing creativity in schools during this period.

Pattern-making in these print publications is promoted as a modular and constructivist form of learning, encouraging multisensory and exploratory ways of looking at and making sense of the world. It is also presented as a democratic form of creativity and a means of introducing the concept of art into everyday life, inculcating an appreciation of well-made things in daily life. I argue that through the lens of this reflective pedagogic print culture, with its emphasis on the benefits of teaching pattern-making in schools, a nostalgic and pastoral English arts and crafts sensibility can be seen meeting a modernist cultural agenda

via psychological theories of child development, creating a distinctively egalitarian, child-centred and craft-led model for learning.

Accounts of progressive art education in Britain describe the shift that took place in classrooms in the early part of the twentieth century away from the idea of the child being instructed in 'drawing' as a skill, which was to resemble the 'object' in front of them as a representational drawing, towards the teacher, encouraging children to draw instead from their personal experience of the world and attend to their inner vision (Tomlinson 1934; Richardson 1948; Efland 1990; Grosvenor 2005; Holdsworth 1984; Campbell 2009). Pattern-making involves abstracting forms into two dimensional shapes, and breaking down these designs into modular units. The wider societal picture within which these books were produced also point to a wider significance of pattern-making at this time, perhaps precipitated by the social disruption and crisis of humanity of the two World Wars, giving impetus to a sense that forms of inherited knowledge needed to be broken down and built up again from scratch. Selleck (1972) argues that the progressive education movement in Britain was inspired by a romantic arts and crafts revivalism, which idealized childhood as a prelapsarian state. 'Child-centredness' was the psychological lynch pin in this approach as 'it enabled the progressives to be disgusted with their own civilization and simultaneously believe that a better world might be built'. Legacies of the arts and crafts movement aligned with modern psychological theories of child development at a time when continuities and certainties had been disrupted by war. The turn towards child-centred models of learning through expressive mark making, and construction through handling materials, was seen as necessary to balance the rational languages of mathematics and written word. Herbert Read in *Education Through Art* (1943) argues for

[...] the enormous significance these non verbal, non discursive forms of thought have for the development of human intelligence. To neglect them in favour of purely conceptual and discursive modes of thought is to leave the world of feeling unarticulated, unexpressed, with consequences that are individually neurotic and socially disastrous. (Read 1943: 6)

Several key landmarks in the story of art education in the United Kingdom also occur during this period. The 1918 and 1944 Education Acts created the demand for more text books and stimulated thinking and practice in the field of education. After the Second World War a UNESCO seminar in Bristol in 1951 led to the establishment of the National Society for Education in Art and Design (NSEAD²) which is still active today. The Design and Industries Association (DIA)³ was also established in 1951, consolidating the modernizing agenda that began in the early years of the century. Roughly a third of its membership consisted of craft workers or teachers of handicrafts,⁴ which Noel Carrington praised as the ‘backbone’ of the movement ‘because they could make its principles visible and intelligible to the general public [...] they also wanted to contribute their bit to a better civilization and [...] they felt that by co-operation with others of a like mind this ambition could sooner be realized’ (1976: 18). These initiatives stimulated policy-making in the field of education in order to supply the new profession of ‘designers’ who, it was hoped, would bridge the gap between hand crafted and industrial processes. Schools inspectors for art such as Marion Richardson in London and Robin Tanner in the Southwest, were able to advocate and encourage the teaching of art and craft in schools.⁵ There were also regular short courses for art teachers at Dartington organized by the Tanners and Christian Schiller, and the designated teacher training course for art teachers established at Corsham Hall in Bath was a beacon of art teacher training under the stewardship of Clifford and Rosemary Ellis during this period. These teacher

training courses actively advocated for the importance of teachers of art in schools being artists themselves, and were based on Schiller's belief that 'lasting change would not come from central advisers but from individual pioneers modifying their classroom practice in response to observations of their own pupils' (Burke 2010: 65–82).⁶

Art and Craft Education, a magazine for art teachers first published in 1936, is a rich source of this authority from 'below'. There are many references to the switch in focus from observational drawing to constructing patterns and working in more expressive ways in the art class, and the practical challenges of implementing this 'new' art teaching. For example Mary Robson, writing in 1938 about *The Art Lesson in the Infant School* says 'surely it is a step in the right direction that we have moved away from the formal, imitative work of past years to this vast realm of ART' (Robson 1938: 1). She goes on to observe that children's drawings are a means for them to forge their own visual language for interpreting the world, claiming that children create symbolic glyphs, a personal visual language that comes before verbal literacy, claiming that the child 'has its own set of symbols which he uses freely unless forced out of his natural stage by imitative, formal methods' (Robson 1938:2)

The 'new' art teaching broke from the mechanistic and 'object'-orientated drawing exercises that were predominant in the nineteenth and early twentieth century. Richardson's 'new idea' that came to her was to develop gestural movements in children's drawing into patterns that were 'halfway between Handwriting and Drawing' (Richardson 1948: 55). She had observed the 'spontaneous scribble' of very small children and seen the 'supreme importance of natural movement'. She says – 'By scribbling they were teaching themselves to both write and draw, just as through prattling they learned to talk' (Richardson 1948: 55). This famous passage from Marion Richardson's autobiography makes the case for breaking down the elements of

language into visual segments, which are predicated on gestural play, and which develop the gross and fine motor skills needed to control a pen in order to write. Writing patterns, she insists ‘enrich the child’s stock of mental images and inclines him to see in terms of shape’ (Richardson 1948: 58) and encourages them to think about ‘what can happen when shapes come together in rhythmic combinations’ (Richardson 1948: 68).

Richardson’s experiments offer a valuable pedagogic methodology that utilizes drawing, visualization and pattern-making as a counterpoint to the scientific methods of counting and rote learning of facts. She says ‘how different it all was from the orthodox technique which these children had learned before and imitation of adult art – the language was not theirs’ (1948: 17). Echoing a Froebellian concept of a proto language of shapes and forms she claims that the children ‘could already both write and speak, though not our shapes or sounds’ (Richardson 1948: 55) Richardson created a taxonomy of gestural marks and identifies six pattern elements that occur over and over again, which she claims are ‘separate and essential, that in shape every letter of our alphabet was but a variation of these themes’ (1948: 55). She describes this proto language as a ‘kind of folk art’. Children’s scribble she equates to prattle, a kind of proto language that mimics the forms of meaningful language or coded societal discourse without fully understanding them.

Through her methodical analysis and observation of the children’s work she develops an ‘artistic vocabulary’, which she became the basis for her work *Writing and Writing Patterns*. (1935). The gestural and embodied nature of these marks is in their descriptors – ‘Swing-swing’, ‘Over-over’ and ‘Up curl’. By encouraging the children to see these shapes as ‘playthings’, she develops the motor skills that enhance their ability to write cursive script at a later stage in their development. Initially the children use the shapes as imaginative prompts

for pattern-making blending ‘writing patterns as play and writing patterns as pictures’. This process driven method of making images relies on the capacity for absorbed, focused and iterative play with modular elements of a composition – for instance adding a dab of orange in the hook of each curve, or looking for patterns and repeats by manipulating the image through rotations or playing with symmetries and types of repeat. This is a form of counting and blends mathematical and understanding with visual schematics. Richardson states that ‘before a child is ready to take an interest in letters, he should be shown the simplest of these patterns [...] and encouraged to practice them and to invent others by combining and playing with the given movement’ (Richardson 1935). She emphasizes the importance of the child teaching themselves through free exploration of mark making and repetition. This comment attributed to Robin Tanner in an HMSO pamphlet in 1959 stresses the embodied and gestural nature of the children’s learning through pattern-making:

it was left to a teacher, Marion Richardson [...] to bring the schools back to the simple truth that handwriting is essentially a rhythmical pattern of lines across the page. Marion Richardson laid emphasis on children’s inherent sense of movement and pattern and showed how the craft of handwriting grew out of it.

Richardson’s manifesto for the use of pattern-making in schools was directed towards cultivating the ‘inward eye’ where the manipulation of visual–spatial elements of thought become a language of forms that finds visual and material expression. The insistence on schooling children art through mimesis (her accounts of dreary exercises drawing taps and watering cans) and schematics such as perspective do not engage the child’s capacity for thinking through images. In turning the focus away from the technical artistry of the child’s ability to render a picture ‘realistically’ towards the idea that they are constructing their own

artistic vision of reality she was presenting a radically democratic and egalitarian view of artistic practice. She talks about the importance of ‘an idea clearly beheld as a mental picture’ having an empowering effect on the child’s thought process and focus, which makes the ‘technical difficulties’ of resolving the image secondary to the idea. She presents a memory of a child asking her about the technical drawing examination ‘why should I copy that – it is there already’ (Richardson 1948: 61) and argues that drawing is more than ‘hand eye training [...] now we have the loftier aim of finding and freeing the potential artist in every child’ (1948: 61).

Campbell argues that during the nineteenth and early twentieth century the pedagogic orthodoxy surrounding the teaching of drawing was that the student was ‘seen as empty, needing to be filled with skill in drawing, a skill that was acquired by diligent application to preliminary exercises’ (2009). Richardson’s practice of getting children to draw and paint from modular pattern elements, ‘word pictures’ that she described to them, and ‘mind pictures’, which were a form of automatism, created a different paradigm both for creating and judging the work of art. As each image was the product of the inner vision of each individual child, objective measurements of quality such as mimetic likeness to an object were redundant. Campbell argues that now ‘each painting could only be judged “right” by the child who had painted it, and no longer by the teacher’ (2009). Importantly the objective for this teaching was not simply proficiency in a skill or ‘useful’ knowledge, but ‘the education and development of the imagination in which the end product is a kind of person, and not a kind of picture’ (Campbell 2009).

Corsham Court in Wiltshire, part of Bath Academy of Art was a residential for the training of art teachers established in 1946 placed emphasis on the study of natural forms and drawing

living things as a way of learning about the world. Clifford and Rosemary Ellis who ran the course at Corsham are known for being the illustrators of the Collins 'New Naturalist Library' book covers between 1945 and 1982. They also contributed pedagogic articles to 'Art and Craft in Schools'. Clifford Ellis also wrote newspaper articles about his educational beliefs, and contributed to the UNESCO seminar in Bristol in 1951, which considered the role of Art Education. He had been a student of Marion Richardson, both believed in nurturing the individual in order to facilitate their artistic ability, rather than seeing art as a set of skills that could be mechanistically taught. Writing an account of the Bath Academy of Art in the Times Educational Supplement in 1949 he argues that the training of the future art teacher, designer, illustrator or craftsman should develop from a broad educational scheme. Art would be 'no longer an isolated "subject" but something giving vitality and unity to a whole curriculum' and he writes of his hope that 'there will be a' simultaneous development of intelligence and emotion, 'of play disciplined by intellectual effort'. The course at Corsham was residential in an 'attempt to provide a full community life'. He talks of the influence of Marion Richardson, of whom he was a student, saying 'she held a passionate conviction that drawing is an activity natural to all children one through which a child grows and develops most surely'. His plan was to extend this belief to the nurturing of young artist-teachers whose 'professional training would grow – and grow healthily – from the education of the individual' (Ellis 1949).

Marion Richardson's *Art and the Child* (1948) is a first-hand account of her pioneering teaching experiments with pattern in the early part of the twentieth century. There are similar first-hand accounts of teachers' observations in regular articles such as 'Pattern making for juniors' and 'Experiments with the "C" class' by various artist teachers in 'Art and Craft in Schools' which reflect on their success with pattern-making in the classroom. Robin Tanner

also provides personal anecdotal accounts of teaching block-printed patterns in his book *Children's Work in Block Printing* (1936). These observations by art teachers form a set of qualitative testimonies evidencing the progress of the 'new' art teaching informed by Richardson's ideas, and their percolation into mainstream use by art educators in Britain during this time.

Studying the testimony of artist-teacher observations through the lens of print culture supportive of the 'new' art teaching, a case can be made for pattern-making to be seen as integral to progressive constructivist methods of teaching and learning. Breaking down visual-spatial perceptions of the world into abstract shapes and re-making them as drawings is what Anderson (2015) calls 'a playful educational model' in her defense of 'Isomorphology' as a form of epistemology which looks for patterns in natural forms as a means of 'deconstructing inherited taxonomies in order to create new knowledge and new approaches'. She goes on to say:

Drawing enables the development of the skill of abstract thinking which facilitates the unlearning of conventions of classification that we inherit. Through drawing we can and do observe afresh and form and individual understanding leading to a discovery of relations between objects previously unperceived.

Marion Richardson, a pioneering educator in the classroom, was able to amplify her influence through her advocacy as art inspector of London schools during the 1930s and 1940s. Her influential books *Writing and Writing Patterns* (1935) and *Art and the Child* (1948) place the teaching of pattern-making and decorative skills as central to the development of creativity in children. She writes of her influential exhibition of 600 pieces of children's pattern work at County Hall in London that took place in 1938,

what was the purpose of the exhibition? Certainly not to display the work of specially gifted children. Our intention was to tell the story of an ordinary child's natural artistic development, and to suggest the teachers' share in furthering it. (Richardson 1948: 78)

The exhibition was opened by Kenneth Clark and it had 26,000 visitors over eight weeks. For Richardson it was 'the symbol of swiftly changing, forward looking thought that stirred the teachers as they discovered the ever-widening artistic powers of their pupils, and it radiated the happiness that children experienced in being allowed freedom' (1948: 82). On seeing this work, Herbert Read was moved to announce that Richardson had 'invented a technique for discovering innate talent'. Pattern was heralded as a modular form of teaching free expression to children, enabling them to break down and rebuild ways of seeing the world after the destruction of the two World Wars.

The chief inspector of schools during this period, Reginald Tomlinson, writes in his book *Picture And Pattern-Making By Children* of 'the most striking developments which have taken place in the teaching of art in schools during recent years are in the teaching of pattern-making as a form of expression and in design in its relation to picture making' (1934: 29), arguing that 'arrangements of pattern can for some become a complete language of visual expression' (1934: 29). He acknowledges Richardson's pioneering influence in the United Kingdom within the context of an international interest in the 'new' art teaching including her debt to nineteenth-century pioneers in early years education such as John Ablett's work using patternmaking in the teaching of handwriting, Frederich Froebel's kindergarten movement and his use of non-verbal teaching methods predicated on the playful handling geometric forms, and the Viennese educator Franz Cisek who pioneered the child art movement with his emphasis on expressive drawing and the role of the teacher as facilitating

presence rather than didactic instructor. Tomlinson praises the children's pattern work made by Richardson's pupils, which he says is 'inspired by a naturally ordered feeling. The early efforts come from the joy experienced in movement, space and life' (Tomlinson 1934: 14) and he argues for the psychological benefits of expressive pattern-making saying 'efforts are made by some to release the subconscious mind by letting the child draw and paint patterns and colours which he sees in his mind's eye. It is believed that morbid fears and fancies are thus released' (1934: 27).

Robin Tanner, another artist teacher who became a school inspector during this period, produced the book *Children's Work in Block Printing* (1936) based on his close observations of using block printing to teach boys pattern-making through printmaking techniques.⁹ Tanner also argues for the embodied and multi-sensory experience of pattern and rhythm in children's lives as the starting point for creative endeavours in the classroom.

[...] A child enjoys repetition, whether visual or oral, of shapes or of sounds; he takes delight in arranging his bricks in lines or in groups, and feels the pattern even of his arithmetical tables. He runs along a pavement stepping once in each square and never on the lines, and plays the pattern game of running along the kerb two steps on and one step off. There are games such as hopscotch, skipping, and folk-games, in which patterns of circles, squares and spots are made. We feel the satisfaction of planting a garden, laying a meal, arranging out tools, all in a patterned way.

Tanner was deeply influenced by the arts and crafts ethos of William Morris¹⁰ and believed, like Morris, that

through the intimate handling of materials and the appreciation of their inherent qualities, and through the understanding of the principles of good design, children are able to recognize beauty in craft when they meet it; and they become increasingly sensitive to what is sound and honest, rejecting the shoddy and the false. (Tanner 1936)

Like W. R. Lethaby, who was Head of the London Central School of Art and Crafts at this time, he believed in the tenets of Arts and Crafts movement and its emphasis on the well-being and self-determination that comes from making things for yourself, saying of stick printing that 'attending to handcraft instils discipline through careful preparing and cutting of the block, which in itself instils an aesthetic appreciation for the well-made and well-designed artefact'. Tanner (1936) believes that the achievable nature of making patterns can encourage children who may not have confidence in their artistic abilities, saying

formal pattern has been the starting off point for many children showing little natural gifts, but who have become so delighted with the comparatively easily produced results that they have gained courage and initiative and self-respect, and have gone from strength to strength. (Tanner, 1936:11)

And he stresses the importance of enjoyments that the children have in creative activities saying that he has observed 'they find real happiness in doing work'.

He stresses the haptic nature of this kind of knowledge, saying ‘a pattern unit need not always be drawn: it should be made’ and advocates the use of boxwood sticks and potatoes as well as lino cutting in order to make pattern units.

Tanner emphasizes the intelligence necessarily involved in the ‘organization and ideas necessary for making a pattern or design’ arguing that ‘art should be an attitude of mind to all work, and should not be regarded as a frill or as something divorced from ordinary intelligence’ (1936: 3). The manipulation of simple elements through rotation and repetition to create new patterns is an exploratory and constructivist form of learning through doing, involving a ‘reflexive oscillation’ between the attention to mark making and the gestalt design schema. Worthington and Carruthers (2005) argue that visual intelligence and pattern-making is still underutilized in schools as a form of high-level conceptual thinking, and point to a wealth of evidence of the links between drawing and investigating through pattern-making as not just ‘a record but as representations of their thinking and of embryonic ideas: they fulfil many purposes that are equally relevant to our youngest mathematicians in our classrooms’. They point particularly to the importance of invention in the process of developing visual ideas, and the ‘reflexive oscillation’ that occurs ‘between impulse, ideas and mark...which prompt further thought and mark-making’ Tanner echoes this idea saying of the pattern block (Figure 1):

it is essentially a concrete thing to handle and use, the effectiveness of the result depending as much upon the arrangement as upon the unit itself, Its use invites experiment, and the whole business of pattern printing is intensely interesting game of arrangement



Figure 1 The use of a potato to create a pattern block in ‘Children’s Work in Block Printing’ (1936)

Tanner believes that that creativity is an inherent and natural facility – ‘every child can make and print designs which are good to look at’ – and should, like art, be part of everyday life.

[...] There are thousands of such repeating patterns in the things of our everyday lives. We make patterns unconsciously many times a day through this sense of design, and it would seem natural therefore to use it for our own and common enjoyment.

Although Tanner believed that ‘children’s work should surely look their own; it should come from them’ the aesthetic of his friends Barron and Larcher, whose block printing workshop

was nearby in Gloucestershire, and whose work he collected and showed to his pupils, can clearly be seen influencing the children's designs (Figure 2).

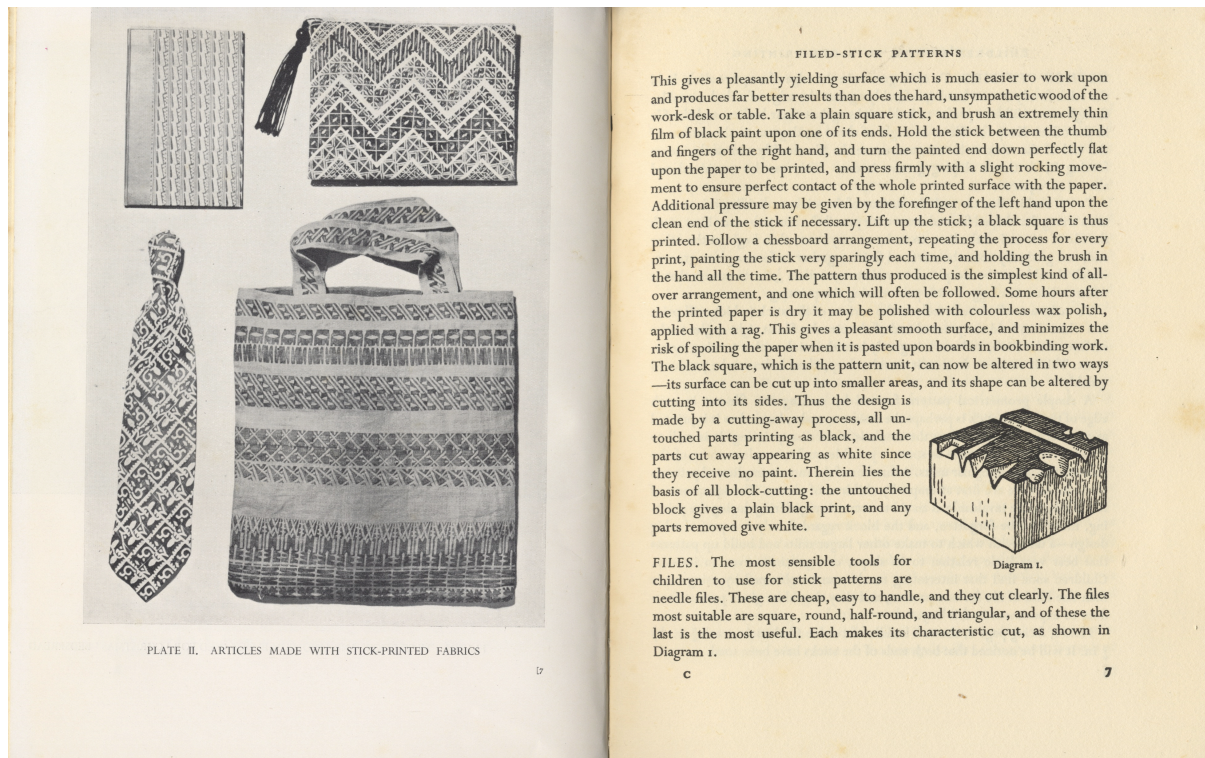


Figure 2: The influence of Barron and Larcher's textile designs can be seen in Tanner's 'Children's work in Block Printing' (1936)

Tanner was commissioned to write *Children's Work in Block Printing* in 1936 by Harry Peach, the director of Dryad Handicrafts after Peach visited his school in Wiltshire and observed the children in the classroom at work. In considering the cultural agency of print pedagogy during this period, the widely available instructional articles and pamphlets published by the Dryad Press, which outline schematics for encouraging everyday creativity through modular and hand-crafted pattern-making, exploring materials and printmaking techniques as process driven iterative haptic learning. Powers (1998) writes that 'the number of elementary books on block printing, including Tanners own leaflet for the 'Dryad' series,

suggest that it became widespread as a school and amateur craft activity in the 1930s and continued to be popular long after the war' (1998: 60).

Harry Peach was an industrialist based in Leicester, who observed the occupational health benefits of 'handicrafts' to returning soldiers with post-traumatic stress disorders or 'shell shock'. His business initially focused on cane work, but he soon branched out into supplying educational art materials for schools and in the 1928 he began to publish instructional pamphlets under the 'Dryad Press' imprint, which covered many areas of the school curriculum and crafts for occupational therapy. The Dryad Handicrafts pamphlets were well-designed attractive and informative leaflets written by practicing makers and teachers. They offer the teacher of art and craft in schools of this time step-by-step instruction in the use of materials and processes and as such capture and demonstrate haptic and tacit skills in an illustrated printed form. Of the 100 or so leaflets printed, a great many offer techniques that relate to pattern-making, for example techniques such as marbling, combed paste papers, stick printing, cut paper, printing with rubber, block lino printing. Wider craft skills such as book arts, weaving patterns and embroidery also utilize pattern-making. The predominance of geometric patterns and pared back simple colours are traditional in the sense they reference folk art of the past, but they also contain a modernist sensibility. They pivot between the nostalgia of the arts and crafts movement, revering slowness and the hand-crafted object, and an utopian optimism looking to the democratization of culture that amateur and child-made craft was seen to empower.

Lethaby was commissioned by Harry Peach to write Dryad Pamphlet number 40, 'Designing Games' (Lethaby 1929), which positions pattern-making as a means of developing 'confidence, pluck, initiative, inventiveness' in all children, to show that 'design' is 'not a

remote thing requiring special inspiration' but something that can be part of every child's education, saying

all designing is a kind of 'playing the game'. As a matter of fact, there are fixed elements in all games – the moves or strokes – and the interest arises in solving new situations by fresh combinations – all games are played as it were from a sampler or pattern book. (1929: 2)

He proposes twelve strategies for 'designing games', which involve collecting and reconfiguring objects, making patterns from simple shapes, collaborative drawing games and 'sets of pattern cards [...] printed each with some ornamental element on it' to reconfigure in playful way.¹¹ Gombrich (1979) argues that pattern-making is integral to human psychology and is the way we make sense of the world. He argues that attending to structures and rhythms in the world creates proto linguistic mental schema that enable 'systems of thought' to branch, radiate and grow as a means of structuring both subjective thought and social organization:

The arrangement of elements according to similarity and difference and the enjoyment of repetition and symmetry extend from the stringing of beads to the layout of the page in front of the reader, and, of course, beyond to the rhythms of movement, speech and music, not to mention the structures of society and the systems of thought. (Gombrich 1979)

Gombrich (1979) talks of pattern as 'the pursuit of infinite variety'. He argues for replacing the term 'horror vacui' with 'amor infiniti' and the mental schema involved in framing,

filling, branching, radiating, linking and counterchange as instinctive conceptual schema reaching after order and meaning in the world. In this way pattern-making from the elements of everyday life can be seen as a meditative as well as creative response, engendering ‘non-discursive’ and autodidactic visual schema for observing and thinking about the world.

The development of psychological theories of Child Development in the early years of the twentieth century created a supporting set of ideas for the new art teaching to work from. Vygostky’s theories of the ‘zone of proximal development’ encouraged teachers to treat each child as an individual and through close observation scaffold their educational experiences extending their confidence through challenges to their cognitive, motor and social skill sets. Ackerman (2004) outlining theories of constructivist models for learning stresses the need for children to be ‘builder of their own cognitive tools’ as a means to understanding their external realities:

In other words, knowledge and the world are both construed and interpreted through action, and mediated through symbol use. Each gains existence and form through the construction of the other. Knowledge, to a constructivist, is not a commodity to be transmitted – delivered at one end, encoded, retained, and re-applied at the other – but an experience to be actively built, both individually and collectively. Similarly, the world is not just sitting out there waiting to be uncovered, but gets progressively shaped and formed through people’s interactions/transactions. (2004: 16)

Clare Barry in her series of articles for *Art and Craft Education* ‘Pattern making for juniors’ describes how ‘it is not unusual for the children [...] to dance and sway with their whole

bodies when drawing out a pattern, generally without seeming conscious that they are doing so' (Barry 1937: 26) unconsciously embodying the rhythms of their mark making. Patterning in language-rhymes and repetitions is a continuation of this process (Barry 1936). She goes on to advocate that

[...] it is part of the teacher's work to inspire the children to feel that rhythmic pattern is not expressed only in the repetition of line or paint or paper, but something that can be and is expressed in innumerable ways and materials, to be found in the detail and the magnitude of the whole universe. (Barry 1937: 27)

Thus pattern-making for children can also be understood as form of enquiry, a model of 'intelligence organizing the world by organizing itself' (to paraphrase Piaget). Interestingly, pattern-making is also often offered as a collective and collaborative activity by these teachers (see Watson 1939), engaging in what Ackerman describes as 'co-construction of shared forms' through for instance block printing or generative drawing games. Barry also offers practical advice on setting up the classroom in order that children can work comfortably and with enough space to work expressively, using their whole bodies, saying

the individual free rhythmic quality of this work certainly owes much to the fact that the children have freedom of movement and whether they stand sit or lie, they are in happy relationship to the paper on which they are working. (Barry 1936:27)



Figure 3: image demonstrating the range of movement used by children in the classroom, in Barry's 'Pattern Making for Juniors' *Art and Craft Education* (1936)

Herbert Read in *Education Through Art* (1943) advocates the balancing of the 'rational bias' in education with 'instinctual and emotional components of the human personality' and 'although this has been accepted as a necessary social safeguard [...] it is now realized that no progress is made [...] by a bird with one wing'. He is a passionate advocate for the case for well-being that attending to 'non-verbal, non-discursive forms of thought' have for developing human intelligence arguing that 'to neglect them in favour of purely conceptual and discursive modes of thought is to leave the world of feeling unarticulated, unexpressed, with consequences that are individually neurotic and socially disastrous' (Barry 1937: 26). Echoing the practice of the Tanner, Schiller, the Ellises and Marian Richardson, he argues that this kind of 'non-verbal, non-discursive' knowledge can only be apprehended through

doing and making, through haptic and tacit means and ‘the teacher must be an artist no less active than the pupil’. Read believes that enabling children to ‘express themselves in symbolic forms’ was to develop ‘the most efficient modes of communicating experience, relying simply on language and reasoning would ‘only express the narrow and exclusive realm of concepts and judgements’. He argues for the value of being able to ‘think in images’ saying that ‘the metaphorical faculty [...] is of the highest importance in thought itself’. In observing the world, finding order and pattern within it, and creating their own symbols and abstracted units from their experience of the, children are approaching the roots of language and symbolic thought, and also centring themselves within their experience of the world, creating their own visual ‘language’ to make sense of it. He argues that the sense of empowerment that children experience in this way is a kind of energy, or ‘contagion’, which ‘passes like fire from spirit to spirit’ (Barry 1937: 26) and is experienced on a collective as well as an individual level (Matthews 2018).

In an article for in *Art and Craft Education* a teacher named Wooller writes an article entitled ‘Patterns from common objects’ (1935), offering a simple set of principles to work to when thinking about pattern. The argue that encouraging children to bring in everyday aspects of their lives into the pattern reinforces the agency that they have in developing symbols with which to meditate and make sense of these elements, and also presents creativity as a democratic activity that can be part of everyday life. Wooller’s description of principles of pattern-making draw on elements of everyday life, focusing the child’s attention onto the world as he might know it, rather than a received taste or set of ideas.

REPETITION. The repetition of any unit will produce a pattern. This unit can be a dot, line, leaf or any object. A row of plates on a dresser, a row of cabbages in a field, a line of marching men all have pattern qualities.

ALTERNATION Two different elements repeating alternately such as a line and dot, tea-pot and cup, bat and ball, a man and his dog will produce still more interesting patterns.

COUNTERCHANGE. The chess board is the best known example of this law of pattern aiming. The many possible developments of this principle have always been of great service to the designer.

RADIATION is a law deduced from the study of natural forms such as shells, leaves, flowers and tree growths. (Wooller 1935)

Barry offers a similar set of strategies that align to different stages of child development and stresses that ‘these methods of approach given should in no sense be interpreted as a series of exercises to be set and then considered as finished’ (1937: 27). Arguing that

[...] it is part of the teacher’s work to inspire the children to feel that rhythmic pattern is not expressed only in the repetition of line or paint or paper, but something that can be and is expressed in innumerable ways and materials, to be found in the detail and the magnitude of the whole universe. (Barry 1937: 27)

Pattern-making is explicitly presented as a way of opening up the child’s ability to look at and experience the world, and to take delight in the infinite possibilities for reconfiguring what they see.

Gwen White's *A World of Pattern* (1957) explicitly locates pattern-making with exploratory and multisensory learning in the world outside the classroom. She includes sections on observing pattern in flowers, leaves, insects, animals and birds. The book itself is designed in such a way to foreground patterns found in the fabric of the natural world through the alternation of opaque and transparent qualities of paper, which to show the pattern in isolation, then combined with an outline drawing, identifying the source of the pattern, when the book is held up to the light, This creates a theatrical three-dimensional aspect to the experience of reading and looking at the book, and demonstrates a way of looking that strips out the abstract patterning from a schematic or conventional way of regarding the world (Figure 4). She has sections on 'looking along' and 'looking down' as well as explanations as to how to create balance, symmetry, radiation, contrast and variety in patterns. The child is encouraged to be at the centre of this world of pattern, and feel themselves positioned in relation to it. She calls the user of this book the 'design discoverer' (1957: 6) and encourages them to look again at the world through the prism of pattern-making 'around us everywhere are new patterns waiting to be discovered' (1957: 6).

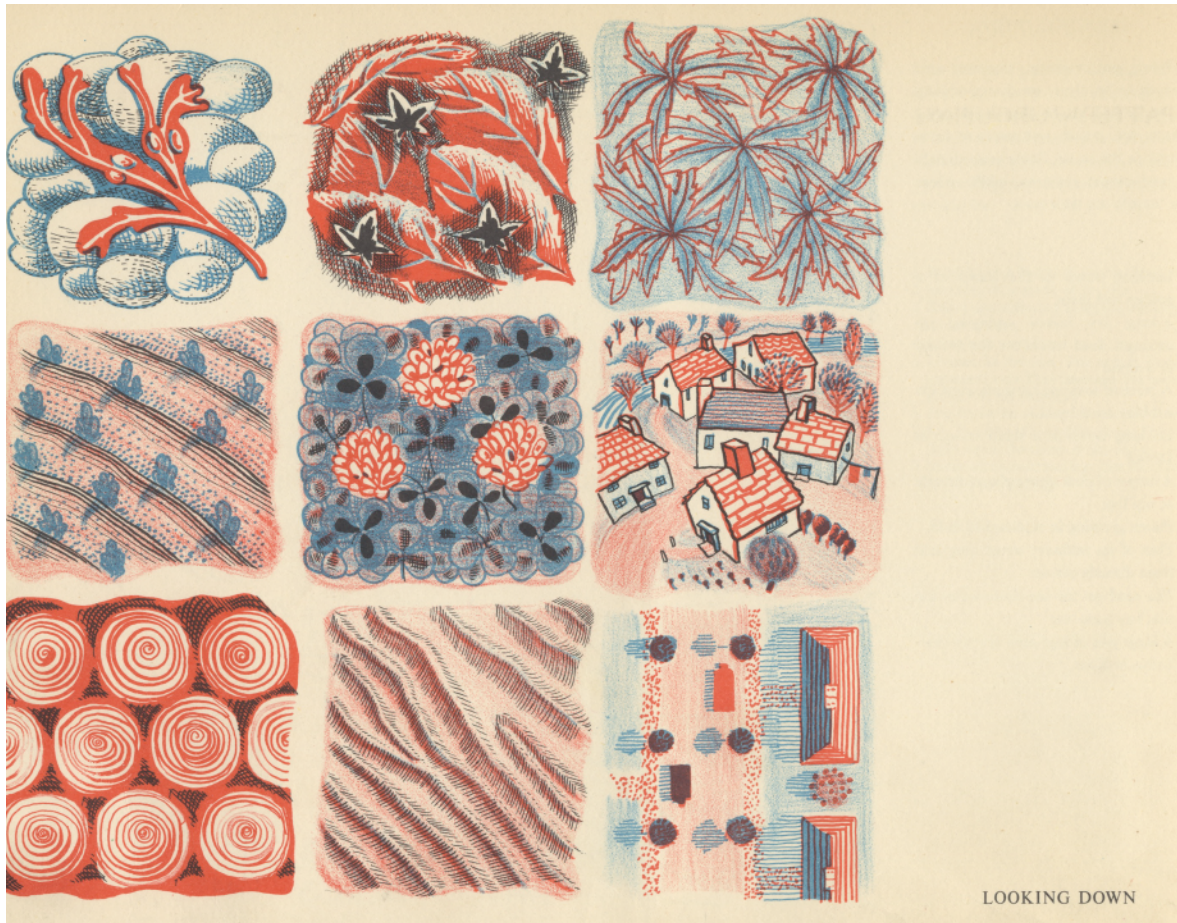


Figure 4. ‘Looking Down’ from Gwen White’s *A World of Pattern* (1957), encouraging the reader to find and observe pattern in the world around them

Echoing Tanner’s belief that ‘childrens’ art should look like their own’ White encourages innovation and ‘personal observation’, saying ‘when ideas are taken from personal observations how very different designs become, for nothing is boring or monotonous in the world of pattern, and the variety of things from which to choose is infinite’ (1936: 6). For instance, in the page on insects (Figure 5) she shows how looking through a microscope or magnifying glass reveals another layer of pattern, as well as using the outline shapes of the insects themselves in pattern-making.

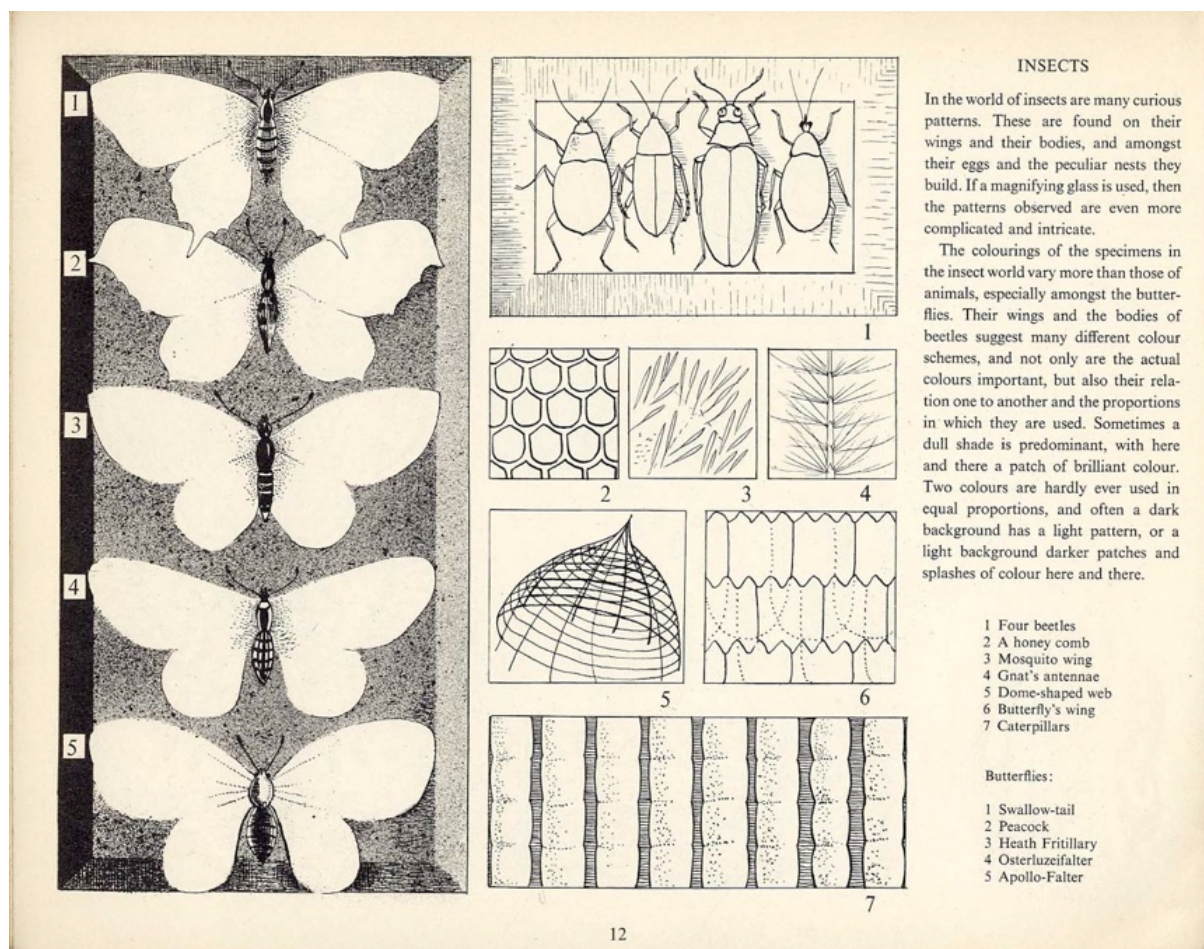


Figure 5. The reader of Gwen White's *A World of Pattern* (1957) is encouraged to observe the natural world minutely and analytically.

Conclusion

This survey of the print culture describing the teaching of pattern-making in schools in the early and mid-twentieth century offers a window into the educational landscape of the time. Through the reflections of artist-teachers and practical guides to making patterns an 'arts and crafts' sensibility couched in valuing hand work and traditional crafts combines with modernist social egalitarianism and an interest in 'design', seen as the link between art and modern industrial processes. Braided into this is an awareness of psychological theories of child development and the importance of nurturing expressive creativity which effects a move towards child-centred and constructivist learning. Abstraction and non-verbal thinking

as an educational idea had been gaining traction since Froebel's 'kindergarten' movement in the nineteenth century. Marion Richardson was the catalyst for change in Britain, both as a highly effective teacher and as a publisher and advocate for 'new' art teaching as a schools' inspector where alongside others she was able to affect policy and conditions for teaching art within schools. The 'new' art teaching emphasized accessing the child's inner world and creativity rather than simply teaching them representational drawing skills by rote. The aim of this was to create a 'kind of person rather than a type of picture' (Campbell 2009). There was also a sense that a new generation must not make the mistakes of the past, and the focus on abstract pattern-making can be seen as part of this interest in breaking down knowledge into modular units, to construct a new world. Pattern-making is framed as a democratic form of creativity encompassing collaboration and social skills as well as motor skills and abstract, non-verbal thinking. An emphasis is placed on the infinite variety that can be found in the natural world and the everyday world of the child. Sourcing patterns from nature enables children to centre themselves in the world, and offers a different, drawing-based taxonomical mode for phenomenological exploration through the senses – colour, texture and shape, and the rhythmical nature of pattern-making itself lends itself to embodied learning. Making decorative items underscored the arts and crafts belief that art should be part of everyday life, and the means of producing attractive decorative items empowered children to feel that they had a measure of control over their environment. Pattern-making, however simple, is seen as an active form of learning that engages all the senses, and grounds the child in the here and now, building confidence and well-being.

Revisiting these approaches, to promoting and valuing creativity in schoolchildren, acts as a reminder of the direct influence that educational policy has on the teaching and status of arts subjects in schools. The current educational landscape in the United Kingdom has seen the

introduction of the English Baccalaureate (EBacc) in 2010 and the decision to make EBacc subjects compulsory in 2015 ‘has meant the prioritization of STEM at the expense of other subjects’ (Barry 1937: 27), with ‘the creative Arts have been downgraded to non-core subjects’ (Last 2017). Since 2014, there has been a 28.1 per cent decline in the overall uptake of creative subjects at GCSE and a 16.9 per cent decline in creative subject entries at A Level.¹² In response to these worrying statistics there has been an increase in lobbying for a more balanced curriculum that incorporates the arts and values creativity.¹³ Successive reports from National Society for Education in Art and Design (NSEAD) and the Council for Higher Education in Art and Design (CHEAD) have flagged up the urgency of halting this decline in the provision of arts teaching. The Durham Commission on Creativity and Education¹, published their report in 2019 recommending that ‘Arts and culture should be an essential part of the education of every child’. Hodgson (2019) as chair of the All-Party Parliamentary Group (APPG) for art, craft and design in education states that ‘the only way to make the creative, problem-solving, well-rounded individuals of the future is to start building them in the most logical place – the classroom. Only then will the UK be able to meet the challenges of the future’.¹⁴

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¹ The Durham Commission on Creativity and Education is a collaboration between Arts Council England and Durham University that aims to identify ways in which creativity, and specifically creative thinking, can play a larger part in the lives of young people from birth to the age of 19, both within and beyond the current education system.
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Notes

¹ Selleck (1972)

² <http://www.nsead.org/home/index.aspx>.

³ www.dia.org.uk.

⁴ https://vads.ac.uk/learning/designingbritain/html/crd_desref.html.

⁵ Some of Richardson's pupils work was mass produced after being shown at the Whitworth gallery in Manchester.

⁶ Schiller was district inspector of schools in Worcestershire from 1937 to 1946.

⁷ *Preparing Art Educators – Clifford Ellis UNESCO seminar held in Bristol in 1951 'The teaching of visual arts in general education'*.

⁸ Marion Richardson

appointed to the art inspectorate of the London County Council, [...] her influence on the art teaching of children become most active and effective through the opportunity afforded her to bring her influence to bear upon the thousands of teachers and children under the care of that great authority. (1948: 12)

⁹ Commissioned by Harry Peach and printed by the publishing arm of Peach's Dryad Handicrafts business.

¹⁰ Tanner's autobiography *Double Harness* repeatedly emphasises this debt to Morris, including a project with Oxfordshire schools and Kelmscott Manor through which children encountered the pattern making *in situ* and then produced their own designs infused with their spirit.

¹¹ These games prefigure Paul Rand's later essay 'Design and the Play Instinct' (1965) in 'Education of Vision' ed. Kepes, G., New York: George Braziller pp 1-8 and the modular card games of Charles and Ray Eames.

¹² Source <https://www.artsprofessional.co.uk/news/decline-creative-gcses-continues>.

¹³ A report from the Cultural Learning Alliance in 2017 cites research that shows 'participation in structured arts activities can increase cognitive abilities', and 'learning

through arts and culture develops skills and behaviour that lead children to do better in school'. A recent AHRC report into the cultural value of the arts states that 'arts in education has been shown to contribute in important ways to the factors that underpin learning, such as cognitive abilities, confidence, motivation, problem-solving and communication skills.'

¹³<https://culturallearningalliance.org.uk/wp-content/uploads/2017/08/CLA-key-findings-2017.pdf>.

¹⁴ <https://www.politicshome.com/news/uk/education/schools/house/house-magazine/104560/sharon-hodgson-creative-subjects-are-crucial>.