

Introduction

Into the Labyrinth

1.1

Once upon a time, long ago, and even far away for those of us in the New World, painters had a deep working understanding of their materials. This came about through a combination of training and experience, in a world both simpler and more complex than our own. In this situation, the complimentary routines of life and art fused naturally into a living craft.

What subsequently became lost from the craft has intrigued and plagued painters now for centuries, perhaps even before Reynolds set out later in his career to emulate Rembrandt's broken style with such technical abandon, and such complex long term results. At this point, through a combination of diligent research and major technological advances in the analysis of older paintings, we know more than ever before about the ingredients of older technique in terms of pigments and mediums. But how these were modified and assembled, what the all-important working methods of a given painter's studio were during the long 15th to 17th century apogee of the craft, will probably always remain a mystery. Given that secrecy with regard to means was always a basic professional intent, perhaps this is just as it should be.

On the surface, the craft of painting has changed greatly in the last six hundred years, especially in terms of the commercial origin of all materials, often sourced from the global coatings industry, and the vivid colours now readily available. But, while modern life actively encourages us to be consumers, we retain our original capacity to make things, providing both a different type and quality of experience. As such, at its foundation, the craft remains physical, and begins where it always has, with a commitment to comprehending the materials themselves. This story remains about pigments and oil, chalk and glue, grinding, mixing, brushing, scraping; the complex results of learning, then discovering further levels of, a series of deceptively simple procedures. What might be learned from exploring the craft once again by hand?

Several related arguments are presented here about oil painting as a personal and professional practice. First, that a handmade craft has more to offer than a machine-made one. Second, that an experiential or heuristic approach to the materials has more to offer than an abstract or empirical one. Third, that the most functional relationship between art and craft is reciprocal, rather than hierarchical. Fourth, that painting honoring the Platonic contract of art in service to the whole has more to offer than painting that does not. The first argument is practical, ancient, and only new within the frame of reference established by 20th century ideas about painting. In other traditional crafts, it has become a commonplace. The second and third arguments are based on criteria established by the first. The final argument is motivational, admittedly rhetorical, and well-established within painting, going back at least as far as Diderot's critical distinction between *la naïf* and *la théâtral*. It is addressed in relation to the painter's larger quality of life, within the functional tension between process and product.

The craft is considered as a creative resource, acknowledging the equal validity of both logic and intuition. An attempt has been made to reconstruct the **concepts, aspects, colour, materials, methods, and systems** of older oil painting from a practical standpoint. The goal is to offer an alternative to both the encyclopedia of differential description, and the grimoire of equivocal arcana, through a practical, holistic reference that documents a painter's actual

experience and choices in detail. Modern approaches to painting in print are grounded in frames of reference that are either scientific or aesthetic. An alternative case is made for a committed, and haptic, relationship with the materials in the 15th-17th century manner.

While not a substitute for a basic painting course, this book contains information for beginners derived from many years of teaching. It has been designed in specific modules, to be applied to various levels of experience, for anyone whose attitude towards painting stresses the quality, rather than the tempo, of the process. Beyond the roar of the artworld and the shell game of the marketplace, this approach still provides an opportunity for the life and the work to become one.

The text is organized around specific types of information. These move from the abstract or internal design of painting towards, then into, its more concrete and material structure. While the philosophical and practical elements of painting are typically presented in separate covers at this point, this has not always been the case. Practice and its underlying motivation are still enhanced when viewed, as they originally were, as complementary aspects of a craft whose fundamental tenets are neither materialist, empirical, nor intellectual, but inherently part of a symbiotic contract between the craftsperson and society.

The **concepts** presented here developed through teaching for two decades in the community. This experience made it clear that the primary issue for most students is the modern frame of reference and its preconceptions about both painting and the visual world. The concepts as a group redirect the mind towards a visual, as opposed to verbal, mode of thought. Learning to think in colour and paint necessarily develops the relationship between left and right brain activities. Pedagogically, this creates a connection between logical and intuitive approaches to problem-solving that includes more of each over time. The concepts form a language for organizing the components of the painting process that aids an often intuitive procedure to evolve through the logic of classical dialectic analysis. This technique uses an applied awareness of opposites to create new possibilities, and a new frame of reference, through synthesis.

The **aspects** presented include many that are standard to all technical manuals, but feature an emphasis on both interior elements of the process and the greater level of tactile or haptic awareness that is intrinsic to older painting. One expects this depth from the way the materials are utilized in older practice, but it actually begins with the way the entire process is organized.

This is especially true with regard to the older implementation of **colour**. This section is designed to explain how colour is arranged to imitate form and light, and the various ingenious ways older painting capitalized on advanced techniques for mapping colour to form. These methods focus on creating more perceptual colour from fewer pigments in a sophisticated application of simultaneous contrast. This is used to define a triadic balance between the **vivacity** of local colour, the **unity** provided by the atmospheric envelope and an integrated light-shadow axis, and a great sense of **optical depth** in the paint itself. This system is responsible for the great colour **dynamics** typical of older painting. Lost secrets are often spoken of with respect to materials, but colour itself was used in a significantly more evolved way when paint was made in the studio, and integrated into the process of making the work.

The **materials** presented are relatively simple and principally traditional, involving many basic modifications of the oil itself. More modern materials such as fumed silica are used when they are aligned with the ever-conservative bias of older painting practice. In terms of technique, the emphasis is on the 17th century, but some concepts or formulas – panels, gypsum gesso, egg emulsion mediums, the Strasbourg Method – are earlier.

At this point, centuries of claims by writers and researchers, both responsible and otherwise, to have discovered or duplicated a specific painter's process, have always ultimately been discredited, or foundered with the advent of further research. While much ingenuity has been exercised, the underlying precepts have tended to originate in the writer's own time period, resulting in both technical and conceptual confusion. The **methods** and **systems** discussed here were developed by comparing the formulas and instructions in several centuries of older texts with the findings of modern conservation research. These were then tested and proven, or disproven, in practice. Research has shown that the oldest texts were most often compilations, and were rarely written by working painters. As such, they contain a tangle of both useful and unlikely information. As the research proceeded, the dedicated practical technical publications from London's National Gallery and Tate Gallery proved to be a reliable filter for the older texts, and a larger pattern emerged. The consistent message of informed simplicity from these findings effectively sliced through the Gordian Knot of the literary trail, and established the fundamental qualities of the older system as **simplicity**, **ingenuity**, and **expediency**, practiced in the service of **longevity**. From the perspective of the craftsperson working in a cultured but competitive context, the logic of this was suddenly obvious.

An early realization in this project was that theories are easily constructed on a trail of eager surmises. Combined with selective literary detective work, it is easy for these to acquire the magical aura of the past. But this still does not turn theory into fact. As such, the materials and techniques detailed here are not presented as reenactments of a specific painter's practice, nor of the older manner in general, as neither of these can be known with certainty. While much of interest has been found, and most often within recognized period materials and procedures, the emphasis is not on startling revelations. Instead, the purpose has been to explore a partnership with the craft to enliven it in an analogous but contemporary way. This bond occurred naturally during the original development and flowering of the craft; there is no reason why it cannot happen again. Given the limitations of the modern method, and the extensive minefield of half-truths in a marketplace that remains without professional guidelines, the reader is gently urged to consider a similar approach. Attention to detail remains a basic consideration of the creative process. These details accumulate, forming natural systems that are unfathomable otherwise. Building a reliable relationship with the materials incrementally, from the inside out, still produces far reaching results for the life, the work, and the quality of their relationship.

Older Practice

1.2

As human beings, we are most fundamentally students of life, and quickly discover that the situation in which we find ourselves is full of surprises. The stage for this is set by two built-in facts. The first is that we are programmed with a bias to search for more, rather than working deeply, or more creatively, with less. The second is that in our daily experience, appearances are at least convoluted, often overtly deceiving. These facts combine to create tremendous possibilities for accidental errors of judgment. Both visually and experientially, we are presented with a matrix containing many levels of information: what we *want* to believe is true seldom proves comprehensive in terms of how a situation actually unfolds. Growing up with this multilayered complexity regarding the truth, we become accustomed to a more analytical approach as the consequences of less examined decisions accrue. To get the most out of our decisions, we learn to comprehend both what we *see* and how we *feel* more accurately. Life often demands action, and while action naturally begets errors, we learn from these and begin

over again. Though often confused, even thwarted, we do not, as a species, give up easily. Older, and at least somewhat wiser, we formulate a new and better plan. Excitingly, more awareness is always possible, even if exactly how to achieve it often recedes into the unknown. It could be argued, in fact, that this built-in element of challenge, of repeated chances to get it right, is what we enjoy most as a species. Success, when it arrives, may in fact prove boring. But the *pursuit* of success, the basic quest to solve a particular puzzle, is always compelling.

The oil painting process reflects life's existential quality to an unusual degree. Experience creates improvement, but it is always possible to see, even if dimly, an opportunity for the next step. This internal, yet less consequential, mirror of the human condition, is part of painting's great attraction. Both visually, and in terms of the process itself, painting presents a paradox in that, on different levels that interact like mirrors facing one another, a physical painting both is, and isn't, something real. By extension, often without even meaning to, painting can ask similar questions about the nature of what we *do* consider to be physically factual, substantial, or real. How does painting turn the tables with such apparent lack of effort, by simply observing the *facts*? If the painted image is intrinsically unreliable, if what it documents cannot be believed, how does this reflect on the source itself, our common trust that physical appearances *tell the truth*? The complex relationship between illusion and reality we experience daily makes painting potentially an extraordinary *précis* for life itself.

Also reflecting life's ongoing puzzle, no single magical solution exists within the craft. The popular concept of the arcane, or “alchemical” epiphany is specious: no Holy Grail or Philosopher's Stone exists whose discovery suddenly solves the riddle. A desire for abstract perfection can in fact lead to the technical ivory tower, or the detour of rare methods and materials employed for their own sake. A living painting process, on the other hand, is about making the most appropriate choices and compromises in working towards a goal that is often changing, at least receding, as the sense of how to paint most naturally evolves through experience. As in life, the truth of oil painting technique is often complex. Attempts to reduce this situation to the yes-no framework of Aristotelian logic can result in a false simplicity through the false strength of the logic itself. While this is applied in a well-meaning way, it can become misleading when materials are judged as “good” or “bad.” Similarly, rules that help keep Painting 101 on track can become impediments for the professional. Oil painting technique can be modeled more accurately, if not more conveniently, as a branching series of if-then statements. Certain materials and methods are more reliable than others, but, as in life itself, what works or doesn't is also conditioned by its place in the continuum of what has gone before, and what will come after. Older paintings especially often show a unique awareness of the life-like process through which they emerged.

True simplicity comes about as a result of true understanding. But, paradoxically, true understanding comes about as a result of a thorough exploration of complexity. The deceptively simple conclusion – *know thyself* is a good example – is not theoretical, but emerges from the crucible of practical experience. Vital to this is an awareness of the relativity of any truth to its context. Unfortunately, this is a form of complexity against which human beings have perennially rebelled in the hope of finding certainty: the single position or answer which works all the time. It is true that guidelines exist, positions that work *most* of the time. But there are still no answers of universal application, and quantum physics suggests that probabilities, not certainties, are built into the most basic fabric of the universe itself. Diverse situations are inevitable, and therefore call forth diverse solutions.

When the materials are addressed on their own terms, rather than as ready-made

products, a vast world of possibilities reveals itself. This world may prove unruly at first, but ultimately offers unusual depth in terms of how the work looks, and can evolve. Over time, the work becomes fascinating as a process, as much a part of daily life as a means to a product. Attention to the craft gives studio time intrinsic life, therefore intrinsic value. From the perspective of a working practice, of decades of development, what approach can offer more?

Older paintings were made with materials manufactured by the painter and the painter's workshop. In the 15th century, this seems to have included everything except constructing the panels themselves. By the 17th century, brushes are purchased as well, and in some cases prepared canvases, but the paint and the oil are still made and refined respectively in the studio. By the end of the first half of the 17th century, in painting centers such as London or Antwerp, artists' colourmen begin to emerge who supply the paint as well, but it is still made by hand. Modern paintings – 19th and 20th century work – are typically wholly made with purchased materials, in the 20th century the vast majority of these have been made by machines. It is still possible, of course, to choose to make one's own materials as part of the process of making a painting. This approach is sanctioned for historical painters, but often held to be dubious for living ones: *why bother, it's impossible, you could be painting*, etcetera. An unfortunate aspect of the sanitizing and intellectualizing of painting by modernism is the demand that everything be as spontaneous – and as ephemeral – as The Idea. It is fascinating, given their checkered history, that ideas have never developed the slightest humility. They are always new, and always presented as correct for this very reason.

Painters with an interest in the older manner are often puzzled about how to do this while observing the 20th century rules. This is understandable, as the modern system and earlier working methods involve markedly different materials and methods. Older techniques existed as part of a gestalt, developed by generations of craftspeople throughout centuries. Since then, distortions through superficial research, misinterpretation, testing out of context, and dubious attempts at improvement are all common. A given system or material is best viewed within the process of making the work, otherwise its purpose may be misconstrued or lost. It is important to consider any research or opinion in this light. Older painting methods are direct but subtle. A situation that originally developed through decades of daily practice cannot be explored or judged reliably without an analogous form of immersion.

Technical art history makes it clear that many materials can be used safely in oil painting besides oil, as long as they are used in decided moderation. The craft is not only about the choice of materials, but also their amount, placement, and method of implementation. This involves understanding the physical structure of a painting, and applying the crucial, often ignored, art of proportion. In older painting, a developed sense of both economy of means, and the visual goal, led to an evolved sense of how to apply the materials. They are used with the logic and precision of an inspired orchestration, to augment the whole. Traditional materials such as egg and resin make occasional appearances, but recent research into the molecular structure of the paint itself shows that, in the case of major painters and technicians such as Raphael, Rembrandt, Rubens, Vermeer, Velásquez, and Titian, the principle manipulations were of the oil alone. With regard to Van Eyck, this situation is more complex, but it now appears that the protein found in *The Ghent Altarpiece* (completed 1432) was used to coat the pigments, and that the medium itself was oil.

The standard 20th century written system – variations on a medium of turpentine, stand oil and damar varnish for the paint – probably does not have an analogue older technique. This approach came about as a reaction to the often disastrous 19th century commercial circus of

questionable materials such as asphaltum, harsh chemical siccatives, and various mastic gel mediums. Yet this too was not older practice, but the version conceived by the sorcerer's apprentice. Unfortunately, this situation gave attempts to explore the materials a reputation for leading to technical difficulties. It is logical that focus on a simplified system followed, especially within the classroom. However, this system is rheologically limited, designed for smooth surface work on stretched canvas. In addition, the potential of the oil is virtually ignored. This is also understandable: for most of the 20th century, the quality of readily available commercial oils was relatively low, making darkening of the oil actually expected. As such, the modern system can almost be said to be based on distrust of the oil. Conversely, the older system, working with an entirely different quality of oil – organic, cold-pressed, and hand-refined – is based on trust of the oil. Foundations this disparate can only lead to different conclusions. The modern system bears the same relation to the old system as the Hollywood movie does to the original novel; truncated for a specific time frame, and edited for general acceptance. The living element of a balanced system generated by personal immersion was replaced by a relatively static set of rules.

It is no surprise, therefore, that the most fundamental principles, to say nothing of the resulting nuances, of the craft have been progressively pared away. In his *Methods and Materials* of 1839, Sir Charles Eastlake – professional painter, president of the Royal Academy and first director of the National Gallery – wrote more about processing the oil than *all* the 20th century authors in English combined. Though discursive by current standards, this text remains in print because it provides a balanced and disinterested discussion of older painting process by an actual working painter. After this point, the mainstream emphasis is progressively on a simplified, modern system largely from academia. Once we reach mainstream writing of the later 20th century, this position has solidified. From this perspective, the technology of older painting – which has been so inconveniently preserved in museums, quite obviously has a lot to offer, and about which those impertinent living painters are always asking questions – literally does not exist.

Meanwhile, back at the paintings themselves, conservation research and technical art history are very aware of the original technology of the craft, documenting it at the molecular level. While the answers are necessarily diverse over a span of five centuries, they are logical within the context of the daily life and evolution of the working craftsman. Older painting is technically conservative, based on the oil as both vehicle and medium. Small additions of egg or soft resin occur regularly, but by no means always. Later self-conscious, or aesthetic, forms of craftsmanship, such as are documented in *Pre-Raphaelite Painting Techniques* (2004) by Townsend, Ridge and Hackney, are not part of the older equation. Issues encountered in the 19th century often illustrate ways in which the craft becomes equivocal when superimposed on manufactured materials. This points out that the craft is most reliable when built in at the most basic level. The basis is not technical innovation, but depth of understanding coupled with an inspired simplicity of means. The older system is neither alchemy nor rocket science, but is about developing a functional dialogue with the raw materials at a level beyond what the current frame of reference contains. The modern system is about arriving, as quickly as possible in its most extreme forms. The older system arrives as well, but also emphasizes the quality of the journey. While this may take more time, the craft makes it quality time. It is logical that the older system would produce more evolved paintings, because its emphasis on process first produces more evolved time.

Working with the materials directly allows them to explain themselves at level after level. They function as a living system, a group of operations within which existence takes place. This

is the foundation of the older practice of painting; that it is generally sacrificed to the pace of modern life is a foregone conclusion. Yet, anyone remotely conversant with vocational commitment to a craft understands the role this plays in enhancing the quality of life. Because the craft is lived, it becomes alive. This explains the slow but sure devolution of the craft once painters became professional aesthetes, allowing the colourmen to make basic materials decisions for them. It is true that there have been well-meaning and dedicated colourmen such as Roberson or Blockx, and this tradition continues into our time. But unless the painter is viscerally connected to the materials, a crucial grounding element is at risk. Theory is beguiling, and can easily take over without the balancing influence of practice. Potential damage in this case is both technical and philosophical. The overarching quality of 17th century painting is its dedication to humanity. From this point of view, the creation of art without basic ethical, philosophical, and spiritual underpinnings is unimaginable.

The necessary rituals of the craft are helpful at a deeper level than is perhaps logical to the lofty or critical mind. The traditional Buddhist attitude towards ritual – a form of limitation used to create freedom within it – might well be invoked here. The mind is focused on the study of genuine cause and effect through the craft. This enables it to put the current involvement with technological distraction and speed for their own sake into perspective. The craft is not a formal set of beliefs, but is an organic, experiential system operating through constant accrual of more refined information. The frame of reference is practical, and necessarily without rigid boundaries. Answers simply lead to further questions, as the day-to-day working relationship with the materials evolves. Because the craft focuses on the results of immersive involvement, its world is beyond the duality of yes or no, right or wrong. Like quantum physics, the craft focuses on probabilities. Choices are weighed without judgment, because the solution to any problem is always refined, then redefined, as the process develops. The key to working successfully within the craft is to allow it to operate naturally, through the principle of applied uncertainty.

Working From Life

1.3

As human beings, our lives are populated with, and animated by, dichotomies. Male and female, day and night, hot and cold, black and white: these inform our experience in ways so basic as to be taken for granted. Yet change in our world always proceeds from the blending and alternation of opposites. Some opposites, like sun and moon, remain discrete. Others, like male and female, interact and create new beings. As such, opposites provide a basic vehicle for change, either through an alternating cycle, or interaction and subsequent birth.

The fundamental opposition in the history of painting is between the personal and the universal, the felt and the seen. Across centuries and throughout different cultures, these two positions have waxed and waned, struggled with, and informed one another. In the 20th century modernism attempted to critically marginalize feeling as an aspect of painting and replace it with an exalted Art of Ideas. While this was generally regarded as new, it is in actually old. The European academies were all based on the abstract Ideal being conceptually superior to Nature. And, just as then, it has been proven to be a fine line between worship of the mind and heartlessness. Painting – older and wiser in the ways of the world – has ultimately responded to this perpetual motion machine of ideas by going its own way. This provides a way for painters to continue to work with the genuine history of painting, as opposed to the cant version of it often told by modernism.

In the West, the educated mind – urban, secular, humanist – typically sees the world as an

arbitrary conglomeration of stuff: some of it beautiful, some of it ugly, some of it needed or desired, some of it not. This approach is different than that of the European Middle Ages, which saw the world as a perfectly constructed whole, the work of a Divine Craftsman, and therefore naturally full of wonders. This world did not look for explanations that were scientific in our terms, it accepted magic and miracles as intrinsic to daily life. While this may seem naive, period authors such as Nicholas of Cusa (1401-1464) reveal how sophisticated the application of these concepts were in context. None of the empirical versions of reality we have substituted since – from the number of elements in the Periodic Table, to the number of galaxies in the Universe – have ever lasted very long. In our era, science is never wrong, but it does change its mind quite often about what is right. This works as long as we realize that true empiricism is not an end, but an awareness of the process of evolution inherent in a series of questions that are progressively refined through experimentation. The foundation of this is open mindedness. As such, the true empiricist, like the Great Auk, is rare. It is easy to become attached to our opinions, rather than allowing them to evolve. Yet, the unifying aspect of this situation is that definitions expand. Answers or solutions are relative because the frame of reference itself inevitably grows as it is studied. Whether personally or historically, as microcosm or macrocosm, change produced by an expanding universe provides the only constant.

A painting succeeds because the painter has woven many elements – drawing, colour, value, composition, rhythm, idea, and feeling – into a unified whole. All of these have both physical and metaphysical aspects. While rhythm, for example, could be illustrated graphically, it becomes more compelling to the viewer via meaning: is that a peaceful, a rollicking, or a menacing sea? Turner gives us all of these in different paintings, and, in terms of the painting as an experience, these distinctions matter. This establishes the most profound difference between traditional academic painting and fine art. Academic painting assumes the technical element to be paramount. The sea must simply be rendered as accurately as possible: note the recession of the reflected midtone just below the horizon. But fine art takes the risk of including motivational – emotional, ethical, metaphysical – aspects in the work. Chardin famously commented that, “We use colours, but we paint with feeling,” and in his work we often witness a level of reality beyond that of depiction. Later, in his *Journal* (10-10-55), Delacroix speaks of learning to use accuracy in the service of the imagination. Yet this is a situation where a fine balance needs to be maintained. Too much emphasis on perfect execution tends to make the work stiff or lifeless, but not enough can lead to self-indulgence, or oddity for its own sake.

Throughout the 19th and 20th centuries, Western culture became increasingly entranced by its ability to create knowledge. But knowledge is a potential, the issue is how it is implemented. Knowledge can be a means to wisdom, just as paint can be a means to art. But paint can be a means to quite a mess as well. If knowledge – as paint, as any tool or means – is not implemented with wisdom, the results are unpredictable, and can be disastrous. Wisdom, in art or in life, always means placing the welfare of the whole first. Unless all elements in the painting work together to create an ultimate sense of unity, the painting is incomplete or unsuccessful. As this unity is always based on the unity of Nature we inhabit, we tend to take its physical rules for granted. The creation of unity, however, can also be broadly applied. We are taught from life what works in painting, but can also learn from painting what works in life.

Unusually large numbers of decisions are made in the transition from a blank surface to a finished painting. Painters strive to make these decisions with the right materials, and in the right order, but if this knowledge is not applied with wisdom, the results may well be technically perfect, but without substance. What distinguishes great painting from technically sound, or

even technically amazing painting, is the tension in the great painting between feeling and idea, accurately mirroring the ongoing tension in life between the mental and emotional realms. When this tension comes actively into play, a transformation occurs: the painting acquires an intangible quality of soul. Some aspect of universal truth has been rendered that is unavailable to the mental or emotional realms alone, and the painting achieves a tangible life therein. For this reason great painting is ultimately beyond style or technique, depending instead on the willingness of the painter to come to terms with the paradox of the dual validity of both the mental and emotional modes of experience. The precondition for this is a willingness to evolve both within and without the confines of the personality. Regardless of style, the presence in the moment of this risk generates a quality of visual energy that is unmistakable.

Two crucial things were ultimately lost in the transition to modernism that began officially with Monet's *Impression: Sunrise* in 1873, and ended with Duchamp's *Nude Descending The Staircase No.2* in 1913. The first is the relationship of the craftsperson to the craft: the manifestation of the inner through the outer world. The second is the foundation of a philosophical and transpersonal approach to life and imagery that Western culture inherited from ancient Egypt via the Greeks via the Renaissance. Attempting to navigate without rudder or pole star, it is only logical that modernism would follow a complex and repetitive course. This is not to suggest that other attitudes are invalid – although it is difficult to feel sympathetic towards intentional bad craftsmanship, overt commercialism, or a painting that comes with a viewer's manual – but to suggest that a paradox is at work that needs to be addressed if we are to move into more enlightened territory visually. Genuine culture expresses a still point between unity and diversity: it is a dialogue that recognizes the importance of both the individual and the whole, and as such can be neither rigid nor chaotic. Regardless of period or location, the art of a genuine culture has always had an intangible numinous quality mirroring that most fundamental, if most often marginalized, aspect of our lives.

The fundamentally important thing about a painting is that it be true. It is not important whether the painting is abstract or realistic, of naked people or clothed, of many flowers or one apple. It is simply important that it give the viewer a glimpse into the truth of the painter's world: the “bridge between minds” which Delacroix, following Comte de Caylus, wrote of as the actual purpose of the art. The rest of what is said or thought is all taste or opinion in various temporal guises, and has no impact on an image's ability to rapidly convey deeper levels of information and meaning from the individual to the whole.

Fame and fortune continue to beckon on the temporal stage, but beyond the glitter of worldly painting there has always been painting with wonder. This occurs at the interface of the personal and universal, the outer version of an inner place. Here, a process of growth in awareness is documented that contains elements of both temporal and immutable truth. As we view the microcosm becoming the macrocosm in a painting, we experience three things: the artist, ourselves, and the common visual language which we share, often across a span of centuries. For all the seeming passivity of looking, this process is inherently dynamic: we cannot help but learn. This has always been, and remains, the greater purpose of the process. Genuine art, in whatever style, however big or small, crude or sublime, always gives, binds, and rejuvenates. What this means, how it comes about, is an equation every painter solves in their own way. This generates an intense variety of results, even within the context of realistic work. While this diversity is often the cause of short term controversy, it is the source of long term growth. The basic role of painting as a tool for exploring life is often submerged by a general cultural emphasis on the greatness of The Old Masters on the one hand, or the work of well-

known contemporary artists on the other. Alternatively, painting is viewed as just another channel on the great contemporary television of cultural entertainment. But practicing an art as a calling, as a vocational practice, is ancient in origin: is it possible to evolve beyond this? In his seminal introductory book on painting, *Oil Painting Techniques and Materials* of 1924, Harold Speed comments that “an age has the art it deserves.” On the surface, this has proven true, but painting operates beneath the surface of a given culture as well. In spite of the topical emphasis on what is new, shocking, hip, scandalous, or impenetrable, the older tradition of painting with purpose, content, and meaning also continues to develop.

In his correspondence, Constable observes that painting is actually a branch of natural philosophy. Many comments in Delacroix's journal indicate a similar definition: painting is used as a way of exploring the visual world, but this world is understood to be a metaphor. Painting functions as livelihood, but also as challenge, therapy, and an ongoing act of developing awareness. Life and painting are different aspects of the same energy, a double helix, focused on the Platonic contract of art in service to the whole. The inspiration of the individual is embodied in the work, which then becomes a motivational source for the viewer. This definition of painting seeks to place its essential relevance beyond aesthetic or executive norms. These are observed as a means, not as an end in themselves. The work has intrinsic meaning based on its origin in the dialogue between inner and outer worlds we all share. This is working from life taken beyond ordinary definitions into the realm of conscious affirmation, and remains at the core of what the art has to offer both the practitioner and the larger cultural dialogue.

Mediums

5.23

Because commercial paint offers a convenient but unglamorous sameness, mediums are typically an area of great interest. Here the process can become more individualized and expressive by making or buying something new. As such, the medium has always been the focus of much in the way of invention, and subsequent obfuscation. The 19th century contained many proprietary formulas such as Roberson's Medium, and the tradition of trade secrets continues. But, beginning in the late 18th and early 19th century, many painters began to concentrate on short term results using commercial materials, rather than developing the medium in the context of materials made in their own studio. This means the medium is also an area where a great deal of well-meaning experimentation went seriously awry over time. For example, one of Turner's paintings is known to have cracked within a week of leaving his studio. Our conception of painting has come to accept the separate, often messianic medium component as a given, but the concept does not really exist in the De Mayerne terminology, which is otherwise quite evolved. In entry 195, containing one of several palette illustrations in the text, he indicates that a large blank space on the palette is where the colours are to be mixed with *the oil*. In a letter written during the English obsession with mastic mediums early in the 19th century, Constable warns against the period “nostrums” in favor of using linseed oil alone. Still, it has been established that later in his career, Constable worked with the traditional sequestering trio of egg, resin, and wax.

Literary detective work is often used as a way of establishing the pedigree of a material. The detective work may be sincere, even painstaking, but the territory itself is quicksand. The amount of information actually written by working painters is small, and has been gone over assiduously. While scholarship has identified the occasional “impossible” recipe – *procure twelve scales of a yearling dragon*, etcetera – there are also numerous improbable recipes,

especially for varnish, that are clearly not sourced from practice. This came about because books made up of various craft secrets were a growth industry for centuries, often attracting “authors” who were simply copyists. In addition, identification of the materials themselves across centuries is sometimes obscure, and all-important details of procedure virtually non-existent. The intense secrecy practiced by guilds and working painters during the apogee of the craft means that the evidence presented in these situations typically amounts to hearsay. Even in the case of a quality source like De Mayerne, a question exists about how much of relevance the mettlesome – and perhaps also meddlesome – doctor was actually told. Within the craft, half the story is as effective a shield as no story at all, and much more polite. Rubens, for example, does not mention egg white, a material increasingly thought to be part of his technique.

Literary detective work can also be used to construct a beguiling tale around a medium which, in fact, has little hard evidence of historical use. The consistent technical conservatism of older practice established by the NGTB research is logical from the point of view of the working artisan with a reputation to establish and protect. The degree of technical accomplishment in this work, and its pronounced hallowing through the passage of time, make it easy to forget that, in one way or another, older painting was always a form of bravura performance done to secure economic survival in a world that was quite demanding with regard to the quality and integrity of handmade objects.

Enthusiasm for the medium can easily translate into overuse. Yet, a good rule of thumb is to always attempt to use as little as possible. Using less medium is typically not a hardship in practice, because oil paint is highly responsive. For the painter with an active inner alembic, exercising discipline here is crucial, especially in the context of mediums containing resins, or if stretched canvas has been selected as a support. This will help eliminate long term surprises that can be nearly impossible to puzzle out. An exception to this guideline is the putty medium, essentially a highly stable, pigmentless paint, discussed in depth below. Mediums based on permutations of salt-refined organic (SRO) linseed or walnut oil have also proven to be unusually stable in practice.

All aspects of the craft feature the crucible of cause and effect. Nowhere is this more focal long term than in the choice of medium. Navigating these straits successfully requires an unusual element of precision; part of the paradox that, to be functionally creative, the process must be genuinely organized. The working difference between a medium containing five and ten percent resin is significant. The first proportion is enough to alter the rheology of the paint, the second may be too much both in terms of structure and function. But this is not the easiest distinction to make if estimating small quantities in the heat of the moment. Proportions of stronger ingredients are especially prone to spontaneous expansion under studio circumstances. But this is not a situation where the strongest sword is forged with the greatest heat. A system of accurate measurement, away from the easel and its battlefield environment, helps the medium component be more reliable and replicable. As stated, a notebook and accurate labeling are important. First to avoid going around in technical circles, and second to pin-point a specific formula should it prove off the curve – unusually worthwhile or flawed – over time.

Medium Types

5.23.1

The first instance of the medium is the **oil** in the paint. Paint was originally handmade with oil that had been cold-pressed, and painter refined. The oil was also probably aged and may often have been preheated or otherwise thickened to some extent. Paint handmade with pigment and hand-refined oil is very different than the commercial paint of today, whose

consistency is supplied by additives such as aluminum hydroxide, aluminum stearate and castor wax. Modern paint is a marvel of fine particle size, dispersion, and consistent temperament throughout the range of pigments, but it has relatively little actual body or film strength. Paintings made with it alone have a tendency to dry down: layers sink into one another because the previous layer has not dried hard, or is not effectively sealed by the raw oil.

Painters who refine their own oil and make their own paint can control both the consistency and the level of ultimate gloss of the paint. In this case, a further medium beyond oil and possibly a variety of calcium carbonate on the palette is not necessary. By beginning and ending with the highest quality oil, this simple system is arguably the closest to a generic 17th century approach. It needs no solvent, and is ideal in terms of developing an understanding of the deeper possibilities of the craft from the root. This does not mean that resins must to be eliminated, but if they are implemented after understanding the actual potential of the oil, they are much more likely to be used wisely.

Another approach involves transforming the behavior of the paint – handmade or commercial – using **the putty medium** developed through the results of research into the methods of Rembrandt and Velázquez. In the case of these painters the paint was sometimes modified with ground chalk or calcite, respectively. How these additions were implemented is unknown, although it would be logical for calcite to have been ground into the paint, or into a subsidiary medium with oil, and chalk used dry as a tightener on the palette. This type of medium can also be made now using a painter-defined mix of a variety of stone dusts and oil, and has many variations. Putty mediums are simple to make and maintain in tubes, and make different types of texture, from broken impasto to relatively smooth surfaces. Being oil based, this family of mediums can also dispense with the use of any solvent in the painting process.

A third type of medium derives from the interaction of oil paint with the older **egg** tempera medium and involves the incorporation of a small quantity of egg – either whole, the white, or the yolk – into the paint. Beaten egg white transformed into glair was often used as a medium in illuminated manuscripts and small amounts incorporated into the medium enhance gloss and give a more thixotropic paint with a slight resistance to blending and enamel-like handling qualities. Conversely, small additions of egg yolk produce a more matte appearance, finer discretion and more detailed handling. The yolk is subtle compared to resin, but surprisingly viable as a more archival arresting agent. While egg yolk does dry inflexibly, and is safest on panels, the amount needed to make a difference in the medium's character is quite small, between two and three percent by volume. This group also includes the family of complex but reliable egg emulsion mediums. These mediums all feature the permanence, quick setting and drying, character of egg yolk, produce semi-blendable paint in a wide range of behaviors, and are compatible with the putty family. However, because egg emulsion mediums eventually become both hard and inflexible, they need to be used on panels only.

A fourth type of medium is an **emulsion** made using a specific organic thickener such as egg white, starch, methyl cellulose, gum arabic, or modified casein as the aqueous element. These additions can be used in greater amounts to make water phase tempera on panels, or, with less water and in smaller amounts, as an emulsion to modify oil paint. The emulsion in these cases is leaner and less intimate than an egg emulsion, resulting in density with great pressure sensitivity and adding a characteristic *smush* or mashed potato effect to the paint rheology.

A fifth type of medium makes use of **resins** derived from trees. There are many types of resin with different optical and working characteristics. Resins can be dissolved in oil via high heat, or dissolved in solvent, making for two basic groups. Hard resins such as amber or the harder

copals must be dissolved by heat, making oil varnishes. Soft resins such as damar or any of the balsams can be dissolved with solvent, making spirit varnishes, but can also be heated into the oil. There are also resins, such as sandarac or Manila copal, that are typically dissolved with heat but can also be dissolved in a strong solvent such as spike lavender. The NGTB research has shown that “small amounts” of various resins, predominantly softer “pine resins,” were used consistently, but not by any means globally, in older (pre-19th century) painting practice. Diligence needs to be exercised in terms of the amount of resin used to minimize the potential for long term yellowing. It is true that resins raise the refractive index of the paint film, giving the colour an appealing luminosity, and also help protect against drying down and sinking-in. But both of these desirable effects can also be achieved by a small addition of a pre-polymerized oil, or the use of an emulsion medium. The most reliable way to incorporate resin is in the traditional “small amounts” to change paint handling characteristics, not as a global solution for increased saturation. In larger amounts, darkening does not occur quickly, but it occurs.