Counting Stitches

Knowledge, as per one definition in the Merriam-Webster’s Collegiate Dictionary (10th ed.) is the fact or condition of knowing something with familiarity gained through experience or association. While there are many definitions for the word ‘knowledge’, it is difficult for everyone to agree upon one universal meaning. The definition provided above helps to verbalize my intuitive concept of what it means to know something. Prior to my involvement in the Global Climate Change and Society program I believed that knowledge of science and knowledge of art and the humanities were two distinctly different types. At the conclusion of the program I now believe there many are different ways of obtaining knowledge and these ways are equally distributed between science and the humanities. These ways include experiential/observational, experimental, nous or intuitive reason, as well as learned knowledge (as in a craft). After accepting the idea that knowledge can be obtained in different ways I began to contemplate how the different disciplines one could obtain knowing in related to each other.

Reflecting on the interrelationships between science, philosophy and policy I realized that my view regarding these relationships can be considered ‘counting stitches’. I have recently become the practitioner of counted cross stitch as an intense yet meditative art form. My view of science as ‘counting stitching’ is vested in the concept stitching concept of working slowly and methodically to obtain a desired end or solution. In the case of stitching your ultimate goal is to
construct an image from a determined matrix of colors and the recreation of their relationship to one another. Such a concept is similar to a Piccassist epistemology. You begin with what seems to be only a line or a shape which then slowly transforms into a full picture as lines and curves are added separately. In the case of science you are attempting to solve complex sets of problems in the hopes of reaching a predetermined goal, or picture of the world as you would like to understand it. By methodically moving from one step to the next and setting goals and it seems as if you are setting up a matrix of questions, each with their own color so to speak. As you find the solutions you can reach you’re ultimate goal, or complete the picture. Counting stitches is also more than just an individualist view of the world and science. Counting stitches can represent whole

The philosophy of cross stitching is not well known. One must partake in the practice of stitching in order to understand the beauty and peacefulness invoked during the practice of stitching. If you look to Aristotle for inspiration, stitching can be considered craft knowledge or techné. Heidigger discusses the concept of art in the present as pure expressions and willfulness or the cultivation of nature. Stitching produces an image, a representation of nature through the eyes, mind hands and imagination of an artist. Heidigger also offers some inspiration in that stitching is a form of ‘patient vigor.’ One must think, build, and dwell on the project and set aside the time required for any outcome to be meaningful or beautiful. Rushing would result in shoddy workmanship, unfulfillment, and disappointment. For me stitching is a time of meditation, a time to dwell on the project at hand or on thoughts buried in my mind from previous days and discussions. While the physical motion of stitching is repetitive there is always the excitement of beginning a new thread, starting a new color, which spawns new
thoughts and wanderings of the mind. Typically, unfocused fuzzy questions of the day are clarified during the patient moments I spend with needle and thread in hand.

While stitching is my personal form of Zazen it is also analogous to my world view of what science is and how I believe it should be conducted. Along with the concept of science, the process required to successfully complete a project resembles decision making processes involved in policy relevant science issues. A project can resemble multiple scales; it can represent all of science and everything you wish to discover about the world we live in or it can represent a single question that you want to investigate.

If we view all science, including Climate Change, holistically as Bill Hooke suggests it would be possible to see the implications of our questions, research and tentative solutions. Understanding the ramification of small scale actions on the larger problems at hand would be beneficial for scientists and policy makers. It would allow all those involved to view global issues as issues dealing with a complete system rather than with the analysis of, treatment of, or dissection into parts. While you may need to dissect a problem into parts, it is necessary to keep the whole in mind, for without this it will be impossible to rebuild and restore after a problem is identified and examined. In short, it is possible, and necessary, to explicitly define a problem and specifically research or examine a question but the whole, the complete system but always be considered. Without keeping the whole system in mind one may overlook and important interaction or reaction resulting for actions taken to solve a specific problem.

Pluralism, or applying more than one moral theory to a relationship, problem or question, can be directly associated with stitching. According to Light, pluralists suggest that we cannot have one ethical or moral theory to cover a range of subject or in my case problems because of the nature of the problems and questions. Also, as with stitching, there are numerous possible
routes to reach a goal and a ‘multitude of contexts in which we find ourselves in different kinds of relationships.’ There is an infinite order in which the colors can be applied.

When you begin a project, whether it is large or small, complex or simplistic, you need to make decisions. You need to decide on colors, threads, patterns, cloth, needles, beads, and many other factors. These choices cannot be made without research and personal interest. But, you need to recognize the limits of rational planning as suggested by Bill Hooke. You must realize there are time constraints and limits on resources. You cannot begin a project unless you have the necessary materials and must always consider how much time you require to produce the final project. This is a very important feature of science as well. Without the required funding research project cannot be completed. Also there are typically time restraints or legal stipulations that must be adhered to in order for a problem or question in order for research to even be considered.

In order to decide if you have set the right goal you need to do research. The choice of project will depend if the piece is a gift or for personal display. If you plan for it to be a gift for someone who dislikes, say cats, you would not choose a project whose focus is a cat or feline figure. You must decide through careful consideration what image you want to create and for what purpose. This is similar to science in that you need to know what the use and implications of your work will be. If your goal is to solve a point source water pollution problem in New Jersey you would not be asking questions regarding drought remediation in Colorado. You need to be asking the right questions, which will be explored further in the next section.

As an artist producing a work I will inadvertently involve my emotion and my belief system. To make my initial decisions regarding what project is necessary I use my intuition, or in Aristotle’s words, nous. If I am making a project as a gift I need to know something about the
likes, dislikes, and personality of the person for whom I am making the gift. I need to have some connection to the other individual in order to make a decision about the content, the finished image I would like to present them. Also, through the production of such a piece of art I put myself, my sweat, my blood (from pricking my fingers), my anger, my joy, my whole being. The gift is not just an image representing reality but rather a representation of my dedication to my friend or family member.

During the stitching process one of the main hurdles any artist must overcome is getting out a knot (a problem or ‘wall’ encountered when attempting to reach your goal). It is necessary to ask if the types of questions you are asking are the ones that will help you solve the problem at hand. You also need a pluralistic approaching to decision making and understand the implications of your decision. If you are too hasty you may make the knot worse. Waste can be avoided if you carefully work through the problem by considering how you actions will alter the system, tighten the knot, loosen the knot etc., and will successfully eliminate the knot and save the thread. If you think of science, you can apply the same principle. If you rush to solve a problem, say a produce a cure for a disease, you may inadvertently release a drug that was not properly tested and end up harming more people due to adverse side effects.

The humanities are an important part of education and learning and must be incorporated into all courses of study in order to give students in any field a well rounded background. Art and literature bring emotion and meaning into a world obsessed with science and politics. Art, including cross stitching, serves many functions, not the least of which is aesthetic. I my case stitching brought me into a whole new community and support group. While stitching may at first to be only a solitary art it, this is not true. Stitching circles provide time well spent with
friends and colleagues, swapping of information and perhaps now, in my case, philosophical
discussions. These ideas are reminiscent of Borgman’s concept of communal celebration.

The final touch or the last step that needs to be taken to reach the final goal or image can
be termed ‘back stitching’. You must be patient and wait until all the preliminary steps have
been taken before you can begin backstitching. An analogous concept in science would be the
final conclusions and subsequent preparations before submitting work for peer review and
presentation. One does not begin research with a conclusion, you being with an idea, a question
that you investigate to reach a conclusion.

In conclusion, my view of science and stitching are very similar. I want science to be
methodical and rational. Questions should be explored only after careful consideration of the
implications and uses of the results. If research and development do not lead to desirable results
than perhaps the wrong questions are being asked. If you rush science, the work will not be of
good quality and the results will be meaningless. What good is an experiment if only the
outcome is considered important? The process of working through the question is just as
important as the outcome. Hypotheses are formulated in the beginning but can be disproved
through careful work. The presentation of the results is also very important. If it is
incomprehensible to the audience you are presenting your work to it will be useless. Science
must be presented in a way that it can be available to other scientists, policy makers, and the
public in general. Even if the questions are not directly related to public interests it is important
for a scientist to be able to communicate to individuals and groups outside their field.

I want stitching to be methodical and rational. If I haphazardly place stitches without
counting the ultimate image will be impossible to create. There may be multiple paths to the
same goal since there is no specific order in which colors should be added. However, you must
also maintain correct counting, and you must always wait till the end to backstitch. If you rush through a project you will make a counting mistake and it will take more work to find the mistake and thus take even more time than if you were careful in the beginning. Presentation is also very important. No matter how wonderful or impressive the quality of the final image is, the presentation of the project will make all the difference. If you take up a project on the wall with thumb tacks it will not look as proper as a professional framing.