



## Printmaking Art Education and a Wallboard Application Example in Arts Teaching Department

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### Abstract

A wallboard application was conducted in department of arts teaching. The application was conducted in four semesters in the printmaking art education class. The study was carried out with a view to developing collective working skills based on knowledge and technique in candidate teachers and making various gains to this end. Quality of education that an arts teacher can render to middle school and high school students improves in line with his/her professional competence. Thus, printmaking art education has a significant place within the curricula developed for material use. Candidate teachers find a chance to develop their handcrafts and to use their knowledge and skill-based creativity on the beam by applying the printmaking technique in various disciplines. Design of the 6 wallboard works that were built up by using woodcut and silk-screen techniques were applied as reproductions of works of 4 different artists. In so doing, application skills of students were improved and contribution was made in spatial arrangement academically. As a conclusion, it was figured out that an interdisciplinary interaction opportunity was raised.

**Keywords:** Arts Education, Creativity, Printmaking, Wallboard Painting, Woodcut, Silk-screen Printing.

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### INTRODUCTION

Many theories have been developed on creativity, which is a cognitive skill involving a distinctive problem solving process that emerges as a brand-new, authentic and skill-based product or that is yet to be translated into a product, where an individual uses his/her elements of intelligence in an authentic way and for production, (Aslan, 2001, p. 23) and arts education. The basic objective here is to make an individual active, dynamic, sensitive, knowledgeable, perceptive towards his/her environment and highly conscious. The curricula developed in arts education are therefore grounded on the questions as “how to be a creative teacher?” or “how to develop creative students?” This coupling was emphasized by Torrance in Minnesota studies. According to the Torrance test, it was found out that students became more creative and more self-confident through a free, critical education that is open to communication (1967, p. 137).

In other words, application of education not through teachings that are stereotyped but by developing methods based on perception and skills of the individual would increase creativity. When we look at the art disciplines today from the production point of view, we see that the “narrative language” is a widely-used method. What matters is how, where and when the art feeds itself. Technological developments that appear in various manifestations as a result of production of information lead to competition in arts as is the case in all other realms. In such a competitive environment, the same process applies for arts education and curricula. Even though it is not a complete transition, education systems and hardware catering to production consciousness are being developed. For instance, criteria such as a perspective that recognizes existence and importance of arts education, a curriculum that refreshes itself in accordance with the evolving and changing conditions of the time, a quality arts educator, sufficient class hours, and relevant physical hardware, tools and materials gain more importance (Buyurgan & Buyurgan, 2012, p. 4) for a quality arts education to be productive and relevant.

The issue of “development of creativity”, which is considered a priority in arts education, aims at multi-directionality and freedom of an individual in the digital era. As it entails both the teacher and the student, it shall be easier to carry out a situation analysis by looking at the application methods in educational quality from both perspectives. It will always be possible for another novelty to be born through an education based on an approach that asks the questions such as “Can the teacher add something new into education?” or “Can the student make difference?” The printmaking art education is therefore of great importance particularly in terms of technique applications.

In this study, the Printmaking class in the arts education department was made a 2-year project and turned into 6 wallboard applications along with the existing students of 4 classes, with a view to ensuring communication via arts. In all fields of teaching, development of an individual in sensory and intellectual activities becomes significant with aesthetic values of the environment where he/she lives in.

All institutes that render arts education make different spatial arrangements in various areas according to their existing curricula. It could be suggested that the idea of making a wallboard painting by using printmaking technique is not common. In general, printmaking is, by its technical applications, transferred on to a paper surface and exhibited as a piece of art in a frame. When a woodcut printing is to be made in a larger size, printing can be applied on paper rolls with a width of 100 cm (100cm wide and 61 m high) and a height to your request. We can encounter similar works in the Japanese printmaking art. As it is a difficult task to exhibit and preserve in time the works applied in large sizes, it is not highly preferred. It is not economically feasible in arts education to have each of every student conduct large size woodcut printing applications that can be seen only in arts events. Silk-screen printings conducted by using different materials (glass, plexy, metal and etc...) are mostly commercial. If a large size design is to be transferred on a plexy or glass surface, digital printing is mostly preferred for this purpose, which is because it is cheaper and it does not yield favourable results in terms of application.

Historically, it can be observed that the printmaking art played a significant role in conveyance of information to large masses. In other words, it can be thought that it was directly related to printing machines as a result of the fact that it was used as cliché method. Today, printmaking has been distinguished among graphical arts and gained an important art mission. Nevertheless, ingenuity and technical skills have become merely a tool in this field of art. Technical methods including monoprint, woodcut, linocut, carving, lithography and silk-screen are the applications that are used in printmaking art.

The woodcut art that is used for wallboard paintings dates back to the 4<sup>th</sup> Century AD. We find its first examples in the printings made by Egyptians on fabric. Later, as the Chinese invented paper, blocks started to be printed on hand-made papers. However, a group of Chinese monks who migrated to Japan in those years after a war taught this art to the Japanese, who then developed and sustained this printing method for centuries.

The woodcut technique that we see in the Eastern culture started to appear in the West in the 8<sup>th</sup> century. A group of Chinese travellers and missionaries started to travel to the west, first to Arabia and then to Germany, where they disseminated this art. Its use in Europe as a painting and reproduction technique commenced in the Medieval Age and still continues today. The woodcut used as a technical application

which was originally a reproduction technique by its historical mission has started to be used for artistic purposes in the following processes as was the case for other techniques as well. Today, interest shown towards the art of printmaking in the USA, Canada, Latin America, Europe and Far East is of great importance in terms of both arts and education. Particularly, Japanese artists produce high quality Works in woodcut printmaking art. They are distinguished from artists of other countries in that they produce printmaking paintings in larger sizes and multiple colours. For instance, Munakata Shiko, a leading name in Japanese printmaking art, has exhibited some of his woodcut printmaking Works not as printed on paper but as the printing block itself. As is the case in the wallboard example applied by students, we may encounter such Works as well (Erbay, 1997).

In this technique; the block is manually carved and shaped depending on whether the design is in light or dark colour, or other colour relationships of the design. Areas defined for lines, shapes and surfaces are carved in desired patterns; and ink was injected to higher parts of the block by means of a roller and printed on paper thereafter. Transfer of the print onto the paper can be by means of a press or by rubbing on the rear part of the paper with the help of a wooden spoon or a wooden roller.

The silk-screen print used in the second technical application started to be applied professionally in Europe in early 20<sup>th</sup> century. This technique can be defined in general as the posing and transfer of a design on silk stretched over a frame by means of emulsion and transfer of the ink on to the printing surface by a squeegee. Preparation of the pattern is the most critical pre-printing preparation phase where factors such as silk quality, emulsion quality and stretching of silk and etc are of extreme importance. In recent years, production of technical materials such as paints and auxiliary materials that fit all kinds of design has made this technique more and more appealing. Artists can therefore find the variety of materials to translate his/her design into a print. It is thus possible to print on even non-absorbent surfaces (plastic, glass and etc.) and large and small materials with thick and wide surface fluctuations which are impossible to print on by other techniques. Finally, although this technique is more often used in the serial production market, it has been an area preferred by artists owing to its technical variety. It is also very important in printmaking applications in arts education.

### **Application Objective**

1. Developing technical skills
2. Developing skills to produce works based on a program
3. Gaining an identity and self-confidence for teaching profession
4. Developing collective working skills (Synergy)
5. Developing professional thinking skills
6. Ensuring interdisciplinary interaction
7. Contributing in academic spatial arrangements

**Technique used in the application:** Silk-screen and woodcut

**Authors of paintings selected for the wallboard painting:** M. C. Escher, Victor Vasarely, Pablo Picasso, and Carlos Cruz Diez

**The participating student groups:** Undergraduate sophomores, juniors and seniors and graduate students

**Period:** 4 semesters

**Application Sponsor:** Marmara University, Ataturk Education Faculty

**Spaces:** Ground floor of Marmara University Ataturk Education Faculty and the entrance of Department of Arts Education



**Image 1:** Silk-screen printing application of students in the printmaking workshop



**Image 2:** A detail from printings on plexy



**Images 3-4:** Wallboard paintings printed by silk-screen printing technique

### **Wallboard paintings produced by silk-screen printing technique**

As this application was conducted in silk-screen printing technique, it was conducted by seniors (13 students) and graduate students (10 students) who take the silk-screen education under the relevant curriculum. Specifically speaking, technical competence of students displayed a significant improvement as all phases from posing to printing were conducted by students all by themselves.

Plexy was used as the material of printing surface. As it was impossible by application facilities of the technique to print in large sizes as one single piece, a different solution was produced. The sizes 225 x 240cm and 220x 250 cm were divided into 120 pieces and printing was made on 20 x 25 cm pieces one by one.

Firstly in the production phase, it was decided which design would be printed. One of them was selected from the “*Transchromie*” by *Carlos Cruz Diez*, a representative of *Op art*, while the other one from “*Three Musicians*” by *Picasso*. As the department was adjacent to the department of music teaching, Picasso’s music-themed works were selected to establish interaction with the Music Department.

### **Technical Application**

The design was put into digital environment, turned into black and white by Photoshop and divided into 120 pieces because these films were considered merely as a counter block for the surface whose background would be printed in colour. At the posing phase, films were placed into silk blocks –four in each – whose internal sizes were set to be 60 x 80 cm. However, this phase was used for the final section.

Firstly, ground prints were made by means of the films that were prepared in 120 pieces according to colour areas of the design. There can be only one single colour or eight colours on one piece of plexy, which tells us that prints were made on one single piece of plexy for eight times in that case. If a mistake is made at the final phase, we need to start over and print all the phase one by one again. Moreover, junction points of the pieces are of critical importance after the pieces are brought together to form the whole. Therefore, as the number of pieces printed increases, erroneous pieces were detected and corrected, if any, by bringing a couple of blocks together horizontally or vertically during the course of printing. This phase took 4 months approximately.

Once the background printing was concluded, the films prepared as counter blocks were posed on silk stretchers and made ready for printing. As this process was the final phase of the printing process, the excitement mounts up. This is because it is very important for students to get the return for their efforts and enjoy the completion of work after a very long and exhaustive process. Furthermore, as we approached towards the end of the work, the experience and precision acquired thus far facilitated conclusion of the remaining part of the work. In counter printing process, it took nearly 3.5 months to pose 120 pieces and print them all on plexy.

The process was finalized by hanging the work on the wall. To this end, 1 cm plexy with protective units from both front and rear parts was used to hold 120 pieces together. The one at the rear functions as the load-bearer whereas the frontal one was protective. Moreover, holes were drilled on the parts corresponding to outer parts of the plexy. It was time for fixing to hang on the wall. The load-bearer plexy at the rear was laid on the floor on a large area and 120 pieces were fixed on it one by one with special glue. Once it was completely put together, two layers of plexy that became very heavy was taken from the workshop to the wall where it would be hung by a special transportation method. It is no longer a plexy but a wallboard painting pending to be hung.

Then, nails were placed into the hanging holes that were previously drilled by a driller. Once the wall was ready, the wallboard painting was hung on nails through the holes. The protective plexy was placed and nails were hammered down.

### Wallboard paintings produced by woodcut technique

It was deemed better to use the wooden block itself for a wallboard painting that would be printed on paper by woodcut technique because the way followed in silk-screen technique was not possible here. In so doing, the visual impact would be more consistent and striking. Furthermore, as this application was made by using the woodcut technique, it was conducted by sophomores (14 students) and juniors (11 students) who were taking the woodcut printmaking class under the curriculum. In this program that lasted for two semesters, various technical applications were tried and efforts were exerted to preserve the plastic value impact of the design.

### Technical Application

4 wallboards that would be built by woodcut carving technique were produced out of highly-durable and long-lasting Marin plywood. 10 layers of plywood were used, each being in sizes of 170 x 240 cm and 15mm thickness. Other relevant materials included a wood carving tool set, a roller and black printing paint.

In sequence of operation, the first phase was to decide which design would be printed. 3 works from M. C. Escher and 1 work by Victor Vasarely, representing Op art, as the works fitting best to wood carving technique were selected. “Metamorphoses” (170 x 740cm), “Concentric Rinds” (240 x 300 cm) and “Swans” (240 x 380 cm) by M. C. Escher, and “Vega 200” by Victor Vasarely (240 x 240 cm) were magnified proportionately by keeping loyal to the originals and according to the placing order in the area.

In the second phase, the paintings that were magnified by blueprint copy were transferred on to the plywood surface in every detail, retraced through a fixing pen and made ready for carving. Before the carving process, every student defined the areas that they found suitable for them to engrave and made a division of labour accordingly. For example, a fine-point driller was used to transfer the work of Victor Vasarely *verbatim*. (Image 4) Students who qualify to work in this phase conducted some trials and continued to work if nothing was wrong with the trials.



**Image 5-6:** Students are carving the work of Victor Vasarely on to the wooden block by using a fine-point driller

In “Metamorphose” by M. C. Escher, multiple carving techniques were used. Therefore, division of labour was made in the work. A group worked in carving of general lines while another group of student carving the detailed effects depending on the carving technique.



**Image 7-8:** Before and after the wooden mould was inked in the application of the work by M.C.Escher



**Image 9-10-11:** The tissue examples after the wooden block was inked in the application of the work by M. C. Escher

Once all carving works were concluded, it was time to inking, which was the final phase of application. The image was finalized by black inking to the higher areas by means of a roller. If, at this stage, ink went to some areas that were not intended, these areas were corrected as a final retouch. Then, as inking and correction was over, the block was left to dry for two days.



**Image 12:** Reproduction of “Swans” by M. C. Escher, wood-cut technique

At the end of the 2<sup>nd</sup> semester, the woodcut wallboards were brought in front of the wall where they would be hung, faithful to the original and concluded with a high technical competence. As they were being mounted on the wall, hanging holes were both on the sides and in the middle of the wooden blocks in such a way to distribute the load evenly. Hanging process took two days and was successful.



**Image 13:** Students standing in front a reproduction of “Vega 200” by Victor Vasarely after its assembly on to the wall



**Image 14-15:** Assembly of a reproduction of “Concentric Rinds” by M. C. Escher on the wall wood-cut technique





**Image 15-16:** Assembly of a reproduction of “Metamorphosis” by M. C. Escher on the wall, wood-cut technique

## CONCLUSION AND RECOMMENDATION

As this project was the result of an education application, it provided students with great gains and satisfaction. It was also seen that this project was enjoyed by not only the students but also many others from various disciplines. Throughout the two-year working period, minor problems were experienced due to physical conditions and time. Nevertheless, as the work progressed, these problems were overcome owing to the improved technical skills of students.

In this project, which aimed at improving the cognitive skills for production and specific problem solving skills, students participated and successfully concluded the application by 85% in the first year and 90% in the second years. The reason why 15% and 10% of students did not participate in the first and second years respectively included, among others, absence, health problems or lack of interest. For instance, students who both study and work were sometimes absent and they broke off the group as they could not concentrate. However, as overall interest and performance of the classes maintained an increasing curve from inception to conclusion, targets were achieved successfully.

When education is rendered in line with an objective and target as reflection of a process, it is obvious that participative, productive, creative and sharing identities can manifest themselves actively. Educational applications such as development of group working skills, interaction of different skills in one place and skills to establish cause and effect relationships always provide students with great gains. Furthermore, artistic sharing based on aesthetic values in any living environment is of critical importance in development of an individual from the educational point of view. Therefore, exhibition halls, other places where artistic works exist, art workshop applications, promotion of classical works and reproduction works to this end should be supported.

The difference between the classical and the modern should be highlighted in order to establish ties between the old and the new. Therefore, examples to be analyzed should be picked up in the field in which the work will be conducted and the creation process that will reflect today should be commenced. As the art itself and arts education require a process perception, professional thinking is needed in both technical and creativity terms. As the education a student receives in the world’s art environment would always create difference for him/her, students should make trials to improve perceptions more freely and differently. Seeing that the primary responsibility is on the shoulders of arts education schools and teachers in this realm, teachers of the next generation should be provided with well-equipped, creative, responsibility-oriented and productive attributes in every field.

Plastic arts are today undeniably necessary. Therefore, development of quality individuals shall be possible through arts education. The idea behind making such a wallboard application example stems from this very fact. In universities where we do spend most of our times as a common living space, we believed that it would be more useful to share aesthetic and creative power of arts with other departments, rather than looking at blank walls. As a conclusion, it satisfied everyone including our students beyond measure.

To conclude, any kind of artistic action should be supported and further improved in education faculties. As in this application we conducted through printmaking arts education, students should be provided with environments where they can share their creative thinking within the bounds of possibility.

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