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Textile Production Within a Co-operative Applied to European Rural Women

Abstract

The paper describes our distance-learning proposal in the textile production field for women in remote and rural areas. It is a pilot study focusing on those women who are professionally or occasionally occupied with the production of textiles without having any education in textile production, design, marketing or management, with special focus on those who wish to attend simplified lectures on these matters but cannot, due to their residential location or to their lifestyle constraints. New education strategies adapted to the user's educational level had to be developed engaging the potential of computer technology in the textile process. It is also a proposed solution to the exclusion and unemployment that is still rife in many East Mediterranean and East European countries. We also look for the promotion of the home and co-operative textile industry via education. The research work is a combined project of the Technological Educational Institution of Athens (TEI) and the "Prisma" society, supported by the LEONARDO DA VINCI program and the diploma work and practical training of TEI students. It has been applied all around Greece and introduced to co-operatives in Italy, Ireland and Sweden. We describe the evolution of the program and the results of the applications among our partners.

Key words: textile design, textile production, co-operative textile industry, distance learning, education strategies, unemployment.

Introduction

Our research field is rural women, most of whom work or wish to work locally in the production of handicraft textiles, and who have no textile design and production education and only a minimal basic education. The lack of opportunities and unemployment among women are still serious drawbacks in many areas in Greece, the Balkans and Eastern Europe. It is a social and economic problem that governments are facing, seeking solutions via training, and via promoting home and co-operative industry and production. The majority of rural Balkan women declare 'farmer' as their occupation, which actually means 'unemployed', since it is an occupation that does not offer them any personal income, regardless of the efforts and labour involved, and statistically it means an unemployment rate of 80% among the female rural population. In Greece the official total female unemployment in the country has risen to 14% the last year.

Research Data

The Greek textile industry

The textile industry dates back further than the production of pottery, and most probably even further than agriculture and stockbreeding [1]. It was and still is mainly a job for women, and the most time-consuming one they undertake. Textiles are still pro-

duced locally in Greece and the Balkans by women, in differing qualities and using unique folk traditional methods and materials. The designs which have been handed down through the centuries from mother to daughter, and which reflect local history, religion and customs, have been debased during the last few decades due to massive and unregulated factory production.

Our research was carried out in ten pilot regions of the Greek mainland that produce all kinds of textiles. The participants were unemployed women, or textile workers in small firms (co-operatives), oriented to domestic rather than foreign markets. The operational problems these women are facing are many, and our efforts are focused on pointing out and proposing possible solutions to them. Certainly it is unrealistic for all of them to receive training in textile art, design and all the vital operations of an enterprise, and in Greece the low educational level of rural women makes this even more difficult. Our research was also supplemented by interviewing seven Greek women's textile co-operatives, and by selected data from four governmental and semi-governmental co-operatives' associations. A shelf evaluation questionnaire was completed to offer an accurate image of problems, needs, necessities, and possible solutions.

The skill needs

The first step of the study is an in-depth investigation of the skill needs of the textile producers we interviewed. We interviewed more than two hundred rural women employed full time or part-time in textile co-operatives. They were mostly residents of isolated and remote areas. Two particular difficulties were encountered during the survey. The first difficulty stemmed from their rural location and their different cultural backgrounds. This required additional effort to effectively co-ordinate the project, as well as attention to cultural differences in interpreting the material and information collected.

The second difficulty stemmed from their low level of professionalism and relatively low educational level, making them unable to articulate their skill needs and training requirements well. It was difficult for many to discuss concepts and practices that are common knowledge in any business environment, such as management and marketing. The results of the investigation into skill needs in Greece are given in Table 1.

The manufacturing of textiles

In the context of manufacturing, we can define production as "the entire pre-planned and applied processes and operations that transform materials into predetermined products", (from the publication "Craft" at <http://sfr.ee.teiath.gr/craft.htm>). The development of these processes constitutes production as

Table 1. Level of skill needs of women textile producers in Greece (A: awareness - understanding, B: operational capabilities, C: expertise (external), X: needs).

Level	Management skills	Level	Marketing skills	Level	Design skills	Level	New technology skills
A	X	A	X	A		A	X
B	X	B	X	B	X	B	X
C	X	C	X	C	X	C	X

practiced in manufacturing units. Handicraft, light industrial and industrial companies constitute the manufacturing industry.

At first, textile manufacturing was performed manually. The replacement of manual labour to a greater or lesser degree by mechanical methods resulted in the quantitative improvement of production, in many instances improving the quality while causing it to deteriorate in others. Today, because of global production practices, industries produce goods that are almost identical. On the contrary, textiles and other goods produced (primarily manually) by specialist companies may look alike but are not identical. They maintain their own aesthetic, character and value, thus remaining unique.

Recently, the tourism textile companies have turned their attention to producing hand-made traditional textiles for their unique aesthetic value. We should keep in mind that the fundamental characteristic of a hand-made article, as opposed to manufactured ones, is its uniqueness. Since no two hands can repeat identical motions, these items are not carbon copies. Therefore, a hand-made item can in this sense even be any product that is produced by electrically powered machines which are guided directly by human hands. A good example of hand-made products is hand-woven and hand-tufted rugs.

■ Textile Production

In the Eastern Mediterranean, Eastern Europe and the Balkan countries, textile production is of great importance, and it stands as one of the top export incomes for their economies. The textile business has become a medium of cultural transaction via the increase of tourism, though it is suffering in many instances from lack of identity, due to the imitation or duplication of designs, lack of design quality and lack of production quality, very often due to the producer's low educational level.

Textile producers fall basically into two groups: professional producers who earn their living from textile sales,

mostly men; and those who produce hand-made items alongside another occupation (farming, cattle-breeding, housekeeping) mainly women. The first group of producers is open to new developments, has a good distribution network, has some kind of education and training and a high level of interest in seeing and learning modern techniques and design improvements. The second group draws its members mainly from among women, and textile production is a source of additional income for many of them. Securing jobs for women in the textile sector has therefore a social and cultural significance, besides its economic one for remote rural areas, and especially for the Balkan countries, where it is a possible way to save women from becoming economic refugees.

The basic outlet for women textile producers is the local market, despite the fact that foreign markets appear interested in textile handicraft products. Their ability to penetrate new markets is non-existent, with a complete lack of knowledge concerning the means that can be used in order to approach the consumers. Some of them collaborate with tourism retail shops, but not on a regular basis. In many cases, their products - which are produced in their spare time during the long winter evenings, along with cooking, cleaning, bringing up children and attending to domestic animals - are sold right outside their own homes, which also thus operate as exhibition stores. In Greece only one women's co-operative exports to foreign countries and collaborates with wholesalers.

Governments wish to promote the textile business, and one simple way is women's work-placement in handicraft textile production co-operatives (mainly for the tourism business) which could be organised and run mainly by women, and which also constitute a special production unit, very important historically and economically for the Balkans, the Eastern European countries and the Black Sea coast.

The basic constraints of this simplified solution are the training and educa-

tional deficiencies of the majority of rural women, and the fact that the most productive ones will be middle-aged and past child bearing. Another important issue is the variety of operational modes that characterise the tourism textile industry and the training requirements that this involves. External support from experts could be a prompt and effective way to remedy these deficiencies, but appears in general to be financially prohibitive. Improvement of skills up to a certain level, especially through distance education and training provided either at home or at the workplace, is the most realistic way for these textile producers to survive and become gradually more competitive.

■ The Greek Tourism Textile Market

Textiles form an important part of the souvenir purchasing behaviour of many tourists. In Greece, there is an established demand for textile products among tourists. In many cases, textile purchases are limited to T-shirts and other textile souvenirs, but a significant number buy more traditional, and particularly hand-made items, such as embroideries, linens, carpets, lace and silk products, silk handkerchiefs, blouses, pillow-cases, pareos, men's ties, batiks and the famous "Kalimera", made of sections of well-cut cocoons in collage-work. The full spectrum of local tourist textiles includes all kinds of hand-made carpets, the traditional ones (flokati, kilimi, kourelou, embroidered carpets, tapestry), textiles from natural fibres, hand-woven and embroidered women's clothes and accessories, men's accessories, children's wear, home textiles and accessories.

It is worth pointing out that traditional textiles in the Balkan countries and the Black Sea area, though they are distinguished by their local characteristics and identity, have many similarities in the methods of production, the materials and - in a broader aspect - designs, due to the cross-cultural influence that has been taking place for centuries. The above categorisation of tourist textiles is thus applicable to all this area.

■ Co-operatives

A co-operative is a society with common activities and common economic aims shared by its members, who seek to improve their economic positions and lifestyles [16,17,27,28]. It has a legal front, requires seven minimum voting members, a general assembly

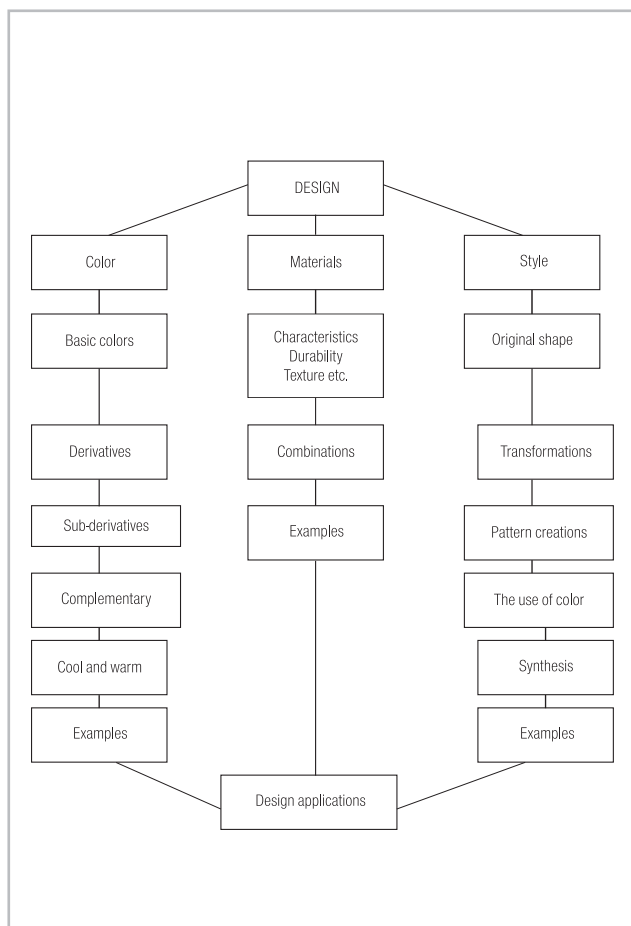


Figure 1. Simplified chart of the basic design education formula (the content of the Design Section).

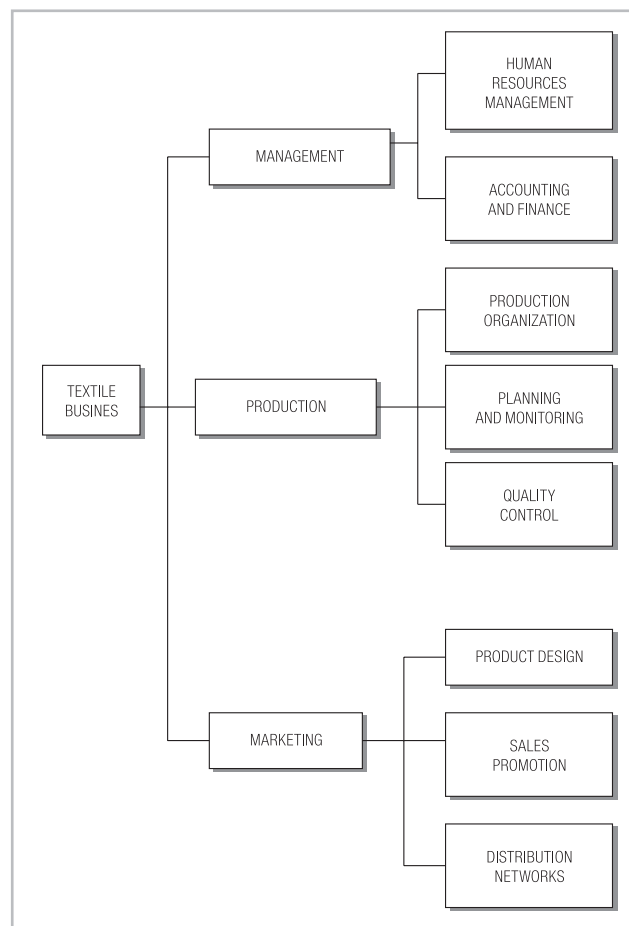


Figure 3. The proposed operational chart for the Greek textile business.

and a director. Their target is the improvement of the members' production ability, the maximisation of sales, the minimisation of product costs, and the optimisation of work conditions. The co-operative offers an economic, social and organisational framework that includes the common purchase of raw materials, common sales of products, common structure of modern production units and common presentation of the products.

Long ago, mankind conceptualised the context and the importance of co-operation. Beginning from the concerted communal effort to harvest their crops, people would join forces even further to improve the amenities of urban settlements. A co-operative seeks to fulfil common goals desired by all, in the framework of common action and the co-ordination of each member's effort and potential. The formation of co-operatives is a phenomenon based primarily on the necessity to address certain needs arising from the social and economic conditions of a given social group. The prevailing feeling among co-operative members is the sense of mutual support and solidarity, creating strong and lasting

bonds between the members of the co-operatives. Thus, a co-operative is a legal business entity that functions according to rules provided in a constitution, and most importantly it is a union of people who have come together to achieve common economic goals.

Development of Innovative Textile Products

A basic characteristic of rural female textile producers is that they are strictly limited to the production of large-sized high-cost traditional textiles. Although it is very important to keep their traditional character, it is also important to re-orientate their production towards new products or designs which can be produced effectively at low cost. This is a question of product diversification and of the development of a range of products that may be addressed to different target groups (specialist, high-income tourists, everyday users).

The younger and more educated producers have already realised that the sales of their textiles depend on diver-

sification in two directions: the development of new designs, and the adaptation of new technologies to meet contemporary needs. Significant progress in the development of new products and techniques has been made by younger women in many rural areas, but there is a pressing need for new designs and effective marketing.

Local producers are used to making craft textiles, most of which are sold to local open markets, and to local people or visitors. Designs, techniques, and equipment are largely handed down through heritage and tradition. A lack of essential skills, mostly regarding the design of new products, management and marketing is a common feature. The lack of innovative designs and products appealing to purchasers is a major drawback. A frequent assumption about textile production is that local people have all the basic skills they need for production. Our assessments of current and potential textile producers is that many lack skills either in terms of designing for production or in terms of pricing and communication, and in the necessary

knowledge for developing new designs.

In Greece their basic sources for developing designs are:

- the National Organisation for Handicrafts,
- local museums,
- local exhibitions.

■ The Case Study

Our case study was based on the following steps of the research team and was accomplished within the CRAFT activities:

- Research work among textile producers and women textile producers, textile co-operatives and the tourism textile business.
- Evaluation of the findings.
- A textile design methodology proposal.
- A Final Proposal for textile production within the CRAFT actions.

■ What is CRAFT

CRAFT (CRAFT Adaptation to Fast-changing Technology) is a combined project that falls within the actions of the Leonardo Da Vinci programme [17], a European Community initiative that promotes the adoption of new strategies in the development of initial and continuous vocational training. It aims to support unemployed women in handicrafts, enterprises and small businesses in the arts and crafts and design sector to help them to adapt to new technologies and become more competitive in the single European market. In addition, CRAFT aims to provide long-distance learning to part-time members of handicraft co-operatives (mostly women) that live in remote areas and to establish a network. The network will assist them to combat their isolation and to improve their efficiency at a national and European level.

The Technological Educational Institute (TEI) of Athens has offered a long-distance textile design education module for these women, adapted to their educational level. The proposal applies to all the partners' textile production and marketing problems and does not have a limited Greek application only. A special training package was created which would meet female handicraft textile producers' skill needs, regardless of their operational and cultural differences, with training modules on design (colour, design, applications), and also on entrepreneurship (management, accounting, production, marketing) and technology (computer usage), since it is of the utmost importance to them to be able to run a modern business. Design is actually a part of the marketing process, determining the form and the utilities of the product, the latter being one of the four basic "P" components of marketing - Product, Place, Promotion and Price - as stated in CRAFT's Hellenic Internet file (<http://sfr.ee.teiath.gr/craft.htm>).

This is a multi-skill development for textile producers through distance learning for adaptation to new technologies, in order to compete in the modern economy. The modules are based on research which has been carried out following the application of a formula that sought to investigate the needs for art education and training in new technologies among seven women co-operatives in Greece.

■ The Research Team

The research team was composed of the staff members of the TEI's Textile Design Workshop, and degree students using their final degree work and practical training, all under the author's supervision. The staff members are qualified practicing designers. The eight-semester degree students with their final degree projects undertook research on the tourism textile business throughout Greece, investigating the traditional design and heritage, the ways of production and the possibilities for innovative uses of the traditional media and designs.

■ The Results of our Research

In order to evaluate our findings we composed a statistic scale from 0 to 10 to classify them. The main results, as applied to rural women textile producers, can be summarised as follows:

- 90% of them have no specialised education.



Figure 2. Examples of the offered design methodology; design proposals including the process of design development. A - photographic data or personal sketches of traditional and classical designs which inspired the new textile design proposals presented in B; A1 - Aegean textile design, A2 - Greek traditional textile design, A3-A6 - pre-classical designs, A7 - traditional costume, A8 - classical motif; B - prototype experimental creations inspired by the A collection; B1 - textile design inspired by A1 and A2, B2 and B3 - textile designs created considering A3-A6 designs; C - experimental creations in general household use, C1 - a wall to wall carpet inspired by A7 and A8, C2 - upholstery inspired by B3.

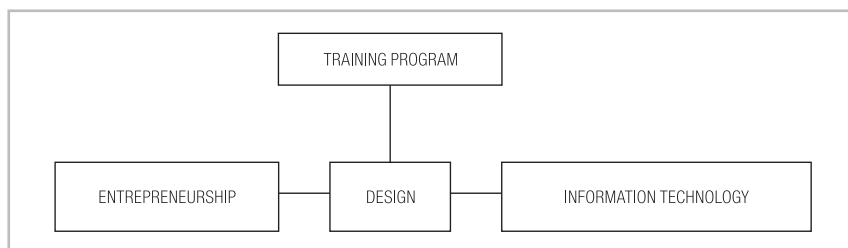


Figure 4. The structure of the training program.

- 50% of them have a high-school (three-year) diploma
- 20% have lyceum diploma (six years post-elementary school education).

Their textile design and production education is limited to what is offered at school, which is to say none, or minimal, or whatever is handed down to them through tradition. Another important issue is the variety of operational modes that characterises their life, the artistic creation depending on the individual decisions of self-employed artisans. The most important skill deficiencies were in the areas of design renovation and management:

- 90% of rural women textile producers were unable to produce new designs or run a business.
- 70% of them do not have the ability to investigate the demand for their home-products and identify appropriate markets, including the 'niche' markets that exist for high-quality textiles.
- 100% wish some kind for training, specifically: 100% in design, 60% in pricing, 50% in marketing, 70% in accounting, 50% in management, 40% in informatics. 30%, a small but significant minority, declared that they need an external expert in order to cover their needs.

External experts are not used in most cases, except in one case, where the women of a co-operative collaborated with a municipal enterprise in researching new woven products. Summarising the main deficiencies responsible for the problems of women textile producers, the following factors should be taken into account:

Education

- low educational level,
- lack of knowledge of co-operative spirit,
- lack of opportunities for improvement of their education - mostly away from the urban centres, in remote rural areas.

Design

- lack of know-how in the development of new products and designs,
- lack of innovation in product design,
- lack of aesthetics and knowledge of the true tradition and heritage.

Technology

- lack of knowledge of new technologies,
- slow adjustment of production to new techniques,
- mismatching of hand-made quality with new technology.

Introduction of new technology

Almost all women (9 out of 10) believe that it is possible to introduce new technology without jeopardising the traditional hand-crafted character of their products. Only the members of one co-operative believed that new technology threatens the hand-crafted character, and they also regard their equipment as adequate. Another co-operative regards its equipment as adequate for the present production activity, but as inadequate for the production of new products. The others regard their equipment as inadequate and they need to supplement it. All need a special kind of machinery depending on their production specification, and all (except for the members of one co-operative) do not use a computer. However there is a demand (mainly by co-operative members) for computers because their use could support many activities, such as distance education, world-wide information, design evolution, management and marketing, which cannot be easily developed at the present time.

It is important for all of them to obtain basic awareness about the existence of new information technology, especially PCs, and selected individuals need to be trained in their use. The support of private consultants or agencies could also be valuable for the introduction of information technology, mostly for co-operative members, but it is not feasible economically or locally.

The design methodology

In order to improve the design ability of rural women textile producers, we offered them a basic design education formula in the simplified form of a chart (Figure 2), together with a design methodology accompanied by many examples (Figure 4) in the following manner:

- a) Collection and analysis of ancient and traditional textile designs;
- b) Evolution of selected designs from a new point of view, focused on keeping their identity and in many cases their traditional ways of production;
- c) Textile design proposals and experimental creations, based on the designs selected above, with examples of their possible uses;
- d) Presentation of the textile work to manufacturers and industries and on websites.

In our proposed examples we treated the traditional designs from an up-to-date point of view, with respect to their cultural value, identity and traditional ways of production, in order to address the demands of modern living and the requirements of today's tourists. Our design methodology can be applied to all the steps of production, from personal creation, to industrial and co-operative production, embodying textile by-products, for touristic and domestic use also. We adapted our approach to the media and technology available, and our computer-aided design work was of great interest to most co-operatives. It minimises their working time, offers many possibilities, has versatility and has the advantage of being what the market demands today, without thrusting aside human inspiration and creativity, or personal originality and uniqueness.

The design development process as worked out by our degree students, and the evaluation criteria of the design evolution as proposed to the co-operatives were as follows:

Design development process (Figure 4)

- Photographic data or personal sketches
- Design evolution
- Prototype experimental samples for general household use.

Evaluation criteria

- Design sources
- Design selections
- Design style
- Design evolution and presentation
- Colour choice and combination
- Final total presentation.

■ The Final Proposal

Our final proposal consists of two steps:

- The development of a user-friendly training program which responds to the needs of unemployed women or uneducated members of co-operatives who live in remote areas providing vocational training through distance learning in the textile design and production sector.
- The development of a European textile network, which will support the exchange of design information and technological know-how between textile artisans, craft textile producers and businesses in Europe, thus promoting the creation of a network for continuous on-the-job training.

In addition we offered the Textile Tourism business and the Textile Co-operatives a proposed Operational Chart as guideline to the aspects which they must focus on for a successful future in a competitive market (Figure 3).

Our training program was developed in a Multimedia form, and covers topics that refer to designing and producing quality textile products within the organisation of a textile business and the development of entrepreneurship. The context of the training program (Figure 1) includes the modules of:

- Artistic design (Colour, Design, Application),
- Information study (Computer Usage),
- Entrepreneurship (Management - Marketing - Production).

The project uses very simple language and methodology, adapted to the women's educational level, assisted with visual presentations and examples from their culture and heritage, in order to make it more educational and attractive. We tried to offer simplified, basic knowledge in all areas and particularly in the artistic field, hoping to inspire the imagination and creativity that has for so many generations nourished our local traditional cultures.

The project has been accessible, free of charge, on the Internet for over two years. Fifteen textile producers and ten artisans have attended our special seminars on the project. It is too early to assess the results. The fact is that many producers from all over Greece have been repeatedly asked us numerous questions, especially about our design evolution methodology. Five co-operatives and the National Organisation of Handicrafts produced selected textile designs and applica-

tions from our case study with successful acceptance by the market. The project was also successfully applied in Ireland, Italy and Sweden.

■ Epilogue

Our project for tourism textile design and production is a new approach to Textile Production that emerges from the personal character of tradition. It is also a confirmation of the powers of a modern design which is based on tradition. We respect the continuity of textile design, and we wish to delimit new frontiers for textile production using the new perspectives of technical developments in the direction of combining tradition and innovation.



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PRISMA (Planning Research & Management Consultants)
TEI (Technological Educational Institute of Athens, Dept. of Design and Multimedia)
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Potter's Co-operative of Thrasano Ltd
Women's Weaving Co-operative of Skylountia
Women's Knitting Handicraft Co-operative of Limni - Evia
Women's Embroidery Co-operative of Tichero
Women's Farming Co-Operative of Zante.

Editorial note

Independently on the literature items marked in this article, the following literature positions and organisations' information (listed in the References) have been considered by elaborating this article.

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