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Images as part of technical translation courses: implications and applications[1]

Maribel Tercedor, Esperanza Alarcón-Navío, Juan A. Prieto-Velasco and Clara I. López-Rodríguez, Department of Translation and Interpreting, University of Granada, Spain

ABSTRACT

Images are often part of the textual structure of Scientific and Technical texts. The understanding and interpretation of the text often depends on the way the interface between the text and the image is established. Despite the key role images play in specialised translation, there is a lot of work to be done to increase awareness about the role images play in communicating science and technology.

This paper reports on an innovative teaching project comprising research on the text-image interface and on the way verbal and on-verbal information is integrated in texts. The paper also presents methodological issues and activities developed to understand the role of images in decoding the source text and encoding the target text in Scientific and Technical Translation. Special attention has been paid to describing protocols for information contained in images in order to make them accessible to the visually impaired.

KEYWORDS

Technical translation, image-text interface, vertical variation, accessibility, advertising.

1. Introduction

Images are central to scientific and technical contexts at all levels of specialisation, conveying important information that complements or substitutes that contained in the text. There is a growing need to present information contained in images multimodally (i.e. using different channels of information: audio, animations, dynamic images, etc.), and such need comes from the multimedia communication scenarios in professional translation and translation training (Parush et al. 2006; Kramarski 2002). These professional shifts may influence the way images are conveyed, described, and explained for online settings so as to give access to as wide an audience as possible. All the above may affect the way translators approach the text in new professional environments.

We understand technical translation as "the translation of any text or text type in which there is a specific terminology belonging to a professional or academic field" (Franco Aixelá 2004: 32). The translation of technical documents should be carried out in multimodal formats in line with new information technology developments. This contrasts with localisation as the cultural and linguistic adaptation of multimedia material, of all sorts of domains. The gap separating courses in localisation from those in technical translation is clearly narrowing down as most technical translation tasks imply dealing with information formats often associated with localisation. As Remael and Neves (2007: 15) state "even in technical

and scientific translation new formats involving visual information have become the mainstays, meaning that translators are faced with new constraints, possibilities and translation problems that require increasingly creative solutions".

Despite its ubiquity, little attention has been paid to the analysis of images for a successful understanding of the source text or to the development of description strategies for an effective rendering of the target text, particularly in multimedia environments.

The aim of this paper is to tackle some methodological issues for the implementation of image-based tasks with texts in technical translation and localisation courses. What follows is a description of our methodology in an innovative teaching project called "Analysis and Development of the Image-Text Interface in Scientific and Technical Translation". This project was carried out with 3rd and 4th year students working from English to Spanish, from Spanish to English, and from French into Spanish as part of the BA program in Translation and Interpreting of the University of Granada. Finally, we add some results from the overall evaluation of the project by our students.

2. Triggering lexical knowledge through visualisation

Visualising images has been acknowledged as a way of boosting creativity (Kussmaul 2005; Tercedor and Abadía 2005). Considering that there is often a lack of conceptual mapping between language pairs in technical texts, visualising concepts is a means to prompt terminology for concepts in the target language, and to complement both textual information and teacher's instructions. More specifically, it helps to identify subtleties in term choices, to make collocational choices and to develop description strategies for processes. We have found that, when translating technical texts, image-based documentation leads to a better understanding of concepts and a better rendering of pertinent terminology in technical texts.

From the premise that visualisation of images is key to understanding, interpreting, and creating texts, we have designed two types of exercises that consider text-image relation from opposite directions: 'from text to image' and 'from image to text'. In the first case, we designed tasks that start from the text and focus on the need to find images for understanding particular concepts in scientific and technical texts. Specifically, when translating three texts (about an ultrasound scanner, a wound management device and about the description of particular skin disorders and symptoms), students had less difficulties in finding an appropriate translation solution when they visualised these concepts. As a diagnostic test, we recorded videos of the pre-translation activities with 3rd year students of the BA in Translation at the University of Granada, to check

their documentation strategies and found that image-based documentation was only carried out after receiving feedback from the teacher stressing the terminological problems. Below is the first text and their first draft of solutions for the translation of the polysemic term 'ultrasound scanner'.

How an ultrasound works Ultrasound scans use sound waves to build up a picture of the inside of the body. They are completely painless. These scans are usually done in the hospital X-ray department. The ultrasound scanner has a microphone which gives off sound waves. The microphone is passed over your body. The sound waves bounce off the organs inside your body, and are picked up again by the microphone as they bounce back. The microphone is linked to a computer. This turns the reflected sound waves into a picture. http://www.cancerhelp.org.uk/help/default.asp?page=150	**Term-EN**	**Translation proposals-ES**	No. of students
	ultrasound scanner	escáner de ultrasonido	7
		escáner con ultrasonido	1
		ecógrafos	**1**
		ecografías o ultrasonografías	1
		máquina ecocardiográfica	2
		máquina ecocardiográfica	1

Figure 1. Diagnostic test for 3rd year students and students' renderings for the translation of "ultrasound scanner". In bold, the only appropriate solution.

In so-called 'activities from image to text', on the other hand, visualising pictures of technological devices and pictures related to instructions helps to evoke terminological solutions in the target language, possibly by distancing students from the source textual context and accessing encyclopaedic knowledge. In this way source language interference is minimised in the production of a target text. More examples of the activation of vocabulary by images and of the image-to text activities will be presented in the following sections.

3. Semantics and Pragmatics of Images

Analysing images in order to identify their meaning and function is a key aspect for translating technical texts. When using image analysis and description in technical translation contexts, the first task is to analyse meaning, the semantics of the graph, and then understand its function within the text, its pragmatics. Basic questions to reflect on the image-text interface are, for example:

- What is the purpose of the image?
- What aspect of a text/concept does the image bring about?
- Does the image rely on the text and viceversa?

Images can be classified either from a morphological or a functional point of view (Prieto Velasco 2008). Morphological classifications describe images on the basis of the most salient formal attributes which configure their external appearance. This concept is usually associated with denotation. However, when dealing with images in technical translation courses, it is more reasonable and useful to attempt to describe images

with regard to their functional role within the text, for the purpose of interpreting their connotative features. Image semantics and pragmatics are relevant to translation. Many technical concepts are intrinsically visual (graphs, maps) and translators need to infer relevant aspects of such concepts to develop verbalisation strategies with regard to them.

Images, like any other representational system, convey meaning. Pictorial semantics involves looking at how meaning is built through culturally constructed ideas that shape the interpretation of visual representations and a social interaction with images (Bamford 2003: 4). Identifying the semantic content of images in a text therefore implies learning what the image depicts, what our life experiences tell us about its meaning and how our understanding of reality is influenced by the image.

At a first level of signification, the semantic characteristics of images make reference to denotative meaning – what is directly depicted. However, at a second level of signification, images can transmit more than what they objectively represent; there are pictures that highlight implicit characteristics constituting their connotative meaning. Connotation does not refer to inherent qualities of the main concept; instead it evokes associated concepts arising from the subjective "reading" of the image. Connotation is, then, the interpretation of the denotation by the viewer, formed from his or her values, experiences, personal identity, and cultural upbringing.

Different functional classifications (Duchastel and Waller 1979; Levin 1981; Levie and Lentz 1982; Alesandrini 1984; Park and Hopkins 1993) have been proposed to account for the relationship between images and texts[2]. These authors generally agree that images are decorative, representational, interpretative, organisational and transformational devices which contribute to a deeper comprehension of specialised concepts.

For pedagogical purposes, we use the taxonomy of images of Marsh and White (2003: 651) based on the principle of semantic organisation. This taxonomy arranges images in three categories: images with functions bearing no relation to the text (mainly with a decorative role), functions expressing a close relation to the text (with a representational role), and functions going beyond the text (with an organisational role).

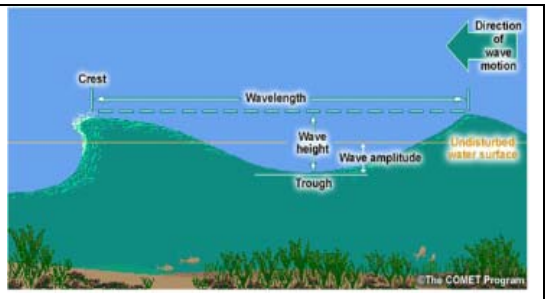
A Functions with little or no relation to the text	**B Functions with a close relation to the text**	**C Functions that go beyond the text**
A1 Decorate A1.1 Change pace A1.2 Match style	*B1 Reiterate* B1.1 Concrete B1.1.1 Sample B1.1.1.1 Author/Source	*C1 Interpret* C1.1 Emphasise C1.2 Document

	B1.2 Humanise B1.3 Common referent B1.4 Describe B1.5 Graph B1.6 Exemplify B1.7 Translate	
A2 Elicit emotion A2.1 Alienate A2.2 Express poetically	*B2 Organise* B2.1 Isolate B2.2 Contain B2.3 Locate B2.4 Induce perspective	*C2 Develop* C2.1 Compare C2.2 Contrast
A3 Control A3.1 Engage A3.2 Motivate	*B3 Relate* B3.1 Compare B3.2 Contrast B3.3 Parallel	*C3 Transform* C3.1 Alternate progress C3.2 Model C3.2.1 Model cognitive process C3.2.2 Model physical process C3.3 Inspire
	B4 Condense B4.1 Concentrate B4.2 Compact	
	B5 Explain B5.1 Define B5.2 Complement	

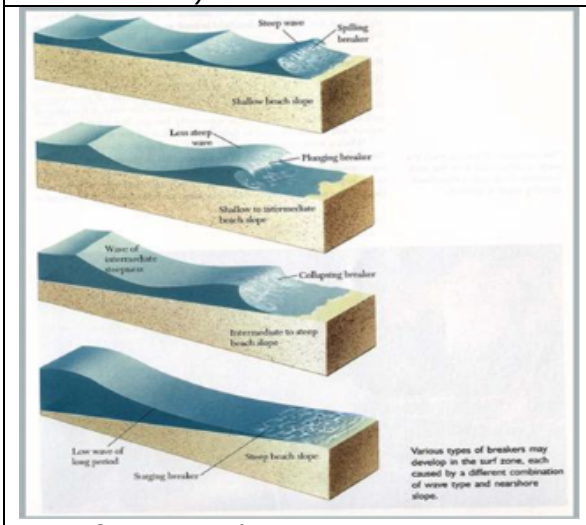
Figure 2. Marsh and White's taxonomy of images (2003: 651)

Understanding image function in relation to text often implies identifying whether the image reiterates a textual aspect, helps to organise or condense information, establishes relations, or whether it is used as an explicatory device. Thus, we offer our students a collection of images, and they have to identify their function, for example:

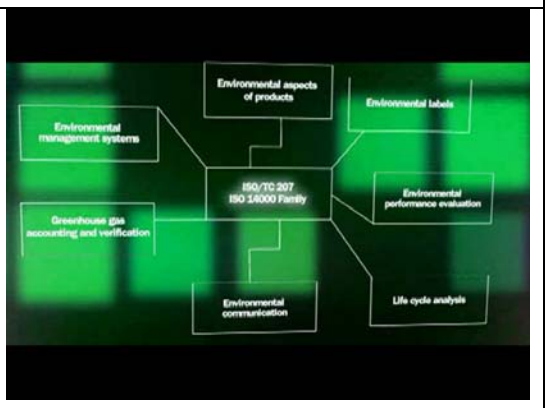
Decorative
(in a web-based text about Cognitive neuroscience)



Representative of the elements of a wave (crest, wavelength, wave height, wave amplitude and trough)



Transformational
(in a text on coastal engineering, types of breakers in the surf zone)



Organisational
(ISO 14001 and other environmental management standards formulated by ISO Technical Committee 270)

Interpretative
(We should place sustainability before economic and industrial growth)

Organisational (the water cycle)

Figure 3. Illustration of different functions of images.
(Source: www.comet.ucar.edu)

The cognitive effort demanded by a decorative image in a text is not usually the same as the effort needed to render image information of graphic material complementing, supporting or substituting information transmitted by a text. An abstract image will more likely have a decorative function within the text than an iconic image or an image representing processes.

For example, of the two images below, if we want to illustrate how to take action when you get hurt on a construction site, image A is too abstract and does not add any relevant information to an instruction, whereas image B may be used to relate to the instructions in the text.

Image A

Image B

Figure 4. Abstract image (left) and illustrative image of a concrete action (right). Source: National Institute of Dental and Craniofacial Research of the National Institutes of Health at www.nidcr.nih.gov (Consulted 30.05.2008).

The following map may be described denotatively, as is done in the <alt> attribute[3] on the right, but in a broad textual structure the image could bring about connotative interpretative features such as development, richness, and international relations.

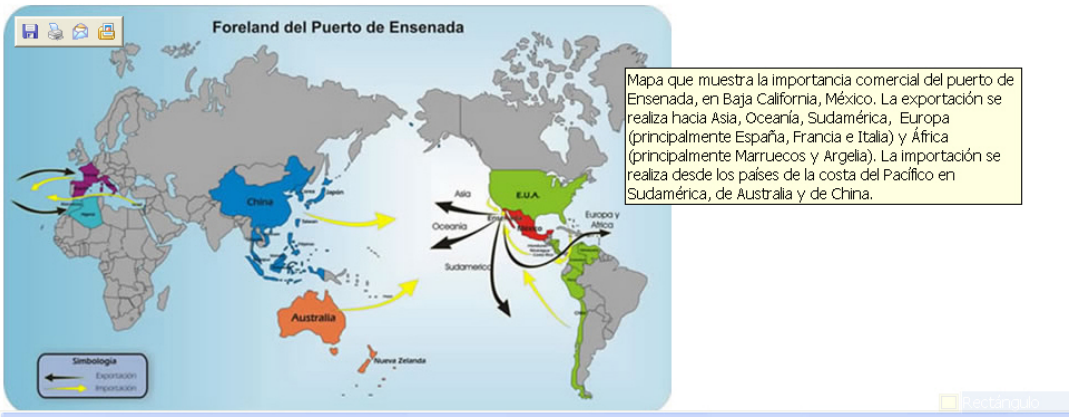


Figure 5. Proposal of <alt> attribute to describe the commercial importance of the Port of Ensenada in Mexico.
(Source: www.puertoensenada.com.mx/imgs/foreland.jpg)

Furthermore, it is important to consider the polysemic nature of many images, as the same image may be used to illustrate different concepts, and even symbolic and iconic images are interpreted very differently by people sharing similar cultural values (Tercedor and Jiménez 2008).

Figure 6. Ambiguous image admitting denotative and connotative interpretations. (Source: MarcoCosta Database.)

Ambiguous images are difficult to interpret since they normally can be understood in different ways. From an objective perspective, the above image shows water flowing from a pipe into a ditch or the open field. From a subjective perspective, the same image may refer to irrigation, pollution or waste. For farmers, water is a symbol of wealth and prosperity, since it brings life to their crops. Nevertheless, our background experience may change the way we perceive prototypical meanings; in this regards, farmers in Nicaragua, New Orleans or Cuba may understand water as a destructive natural force after suffering the devastating effects of hurricanes Mitch, Katrina and Ike.

On the contrary, for the environmentally-concerned, the same image may suggest destruction, illegal dumping, soil pollution, polluted crops, and eventually an ecological crime. To avoid misinterpretations, technical texts usually provide textual descriptions of images which help to disambiguate vague or polysemic meaning.

Once the semantic and pragmatic implications of images have been explored in the classroom, we carry out activities like the following.

We present students in the English-Spanish specialised translation classroom with a selection of images (drawings, 3D images and photographs extracted from the Italian webpage www.Leonardo3.net) of different inventions of Leonardo da Vinci. Since the images are totally devoid of text, we call this task an "image-to-text activity". Firstly, students have to make a denotative and connotative analysis of the pictures, and then, they have to identify the function of the machines. For that, they will have to deploy analytic and creative strategies. As a clue, students are given the following categories: flying machines, war machines, machines for use with and on water, industrial and building machines, theatrical machines, musical machines, miscellaneous machines and geometrical studies. Once students have identified the function of the machine, they have to write down the lexis evoked by images, and

propose a name for the device in Spanish, thus activating their lexical knowledge.

Machine for use with and on water:
barca con palas
barcopalmeador
bote de rotación a pedales
barco podomecánico
barca con noria de remos…,

War machine:
tanque multicañón
circo mortífero
carro-cañón multidireccional
bombardero múltiple…

Musical machine:
tambor portátil
bombocarraca
batería portátil
tambor mecánico…

War machine:
lanzadera de bombas de fragmentación,
mortero de segregación
cañón de minibombas…

Figure 7. "Image-to-text activity" based on the inventions of Leonardo. (Source: www.leonardo3.net)

The next step in the activity involves students suggesting a context where these images could appear, and translating the text which originally accompanied the images. Students contextualise images within the most appropriate communicative situation, so that they are able to anticipate useful information for translation: who the sender and potential recipients may be and what the primary function of the image is. Finally, they assess whether images and textual description have been used in a complementary way and, using examples, evaluate to what extent images have been useful in the translation of the text.

Finally, images can only be useful for the understanding of technical concepts when their role is amenable to the writer's communicative intention. For this reason, understanding image functions is crucial to determining their adequacy to the communicative frame and the level of expertise of writers and readers. Indeed, the role of images changes to serve the general purpose of the text, to meet the cognitive needs of potential recipients and to match the main attributes of concepts.

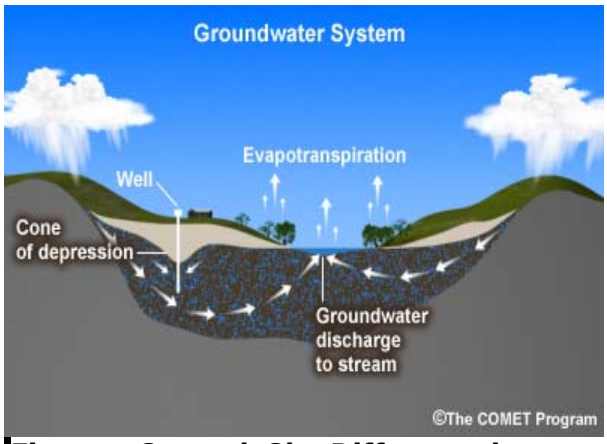
4. Levels of expertise and accessibility in the description of images

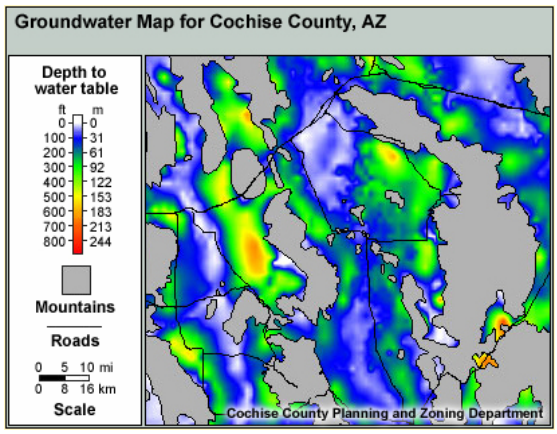
Dealing with technical texts implies assuming the *principle of vertical variation (Cabré 1998:73)*, that is, the existence of different degrees of specialisation. Translators must be aware that images are visual resources for the representation of technical concepts conditioned to a great extent by the level of expertise of readers and the level of specialisation of texts. A description of images based on the notion of expertise/specialisation is long overdue.

4.1. Images as indicators of levels of expertise

A recent corpus study (Prieto 2008) has revealed that graphic information can be described using semiotic and cognitive criteria matching the linguistic description of concepts (definitions, explanations, phraseology, etc.), the level of specialisation of texts and the level of expertise of the intended audience. These criteria are iconicity, abstraction and dynamism.

Iconicity is a semiotic feature and refers to the degree of resemblance between the graphic representation and its referent. Accordingly, images can be regarded as iconic or non-iconic depending on the number of perceptual features they share with their referent.





Figures 8a and 8b. Different degrees of iconic resemblance to the referent *groundwater*. (Source: www.comet.ucar.edu)

In this regard, images sharing a wide range of sensory characteristics with the referent they evoke are regarded to be more iconic (see Figure 8a) than those which do not resemble the entity they stand for (see Figure 8b).

Abstraction, in turn, is a cognitive feature and points to the amount of effort lay recipients should make to understand the semantic content of the image and to recognise the concept represented. Finally, dynamism is a conceptual feature of processes and involves the explicit or implicit representation of movement as an inherent characteristic of concepts categorised as processes.

Prieto Velasco (2008) has shown the dependency relation between different types of graphic information and technical texts about coastal engineering with different levels of specialisation. Firstly, his corpus study showed an extensive usage of images in technical texts; secondly, it revealed that highly specialised texts use fewer images than texts addressed to a lay audience, where a recontextualisation of specialised concepts is needed to promote understanding.

Iconicity and abstraction happened to be a matter of degree directly related to the level of specialisation of texts, despite the fact that they behaved inversely. In other words, there tended to be a considerable number of iconic images in texts addressed to a lay audience, whereas in highly specialised texts images were normally non-iconic. An inverse tendency was observed for abstraction. High-abstracted images generally appeared in highly specialised texts, whereas low-abstracted images were more prone to appear in texts with a lower level of specialisation.

On the contrary, dynamism did not appear to depend directly on specialisation, but rather on the procedural character of technical concepts. As a consequence, only one quarter of the total amount of images contained in the corpus were dynamic, that is, represented concepts implying movement; the vast majority - the remaining three

quarters - were non-dynamic images (cf Prieto 2008). As the availability of high-bandwidth internet connections increases, there should be greater accessibility to on-line dynamic images and animations.

This means that there are certain types of images which often appear in texts with a given level of specialisation according to the characteristics of the audience and the salient attributes of the concepts depicted. Highly specialised technical texts are produced in symmetrical communicative situations where both the writer and the recipient are experts. Images used in texts at this level of expertise are few (in contrast to less specialised texts) and represent abstract complex concepts exclusively intelligible by experts but which are unavoidable for the global understanding of the text. They are mostly non-iconic, abstract and non-dynamic images, because they allude to abstract entities with no physical existence in the real world. This is in consonance with the financial constraints imposed upon text production (editing, translating, revising and printing), which limit the proliferation of visual elements in texts which are not originally addressed to mass markets, for instance, highly specialised scientific and technical texts.

Semi-specialised texts are produced in asymmetrical situations where the writer is an expert but the recipient cannot be considered as such (university students or experts belonging to related subject-fields). Since semi-specialised texts are located in the very middle of the continuum of specialisation, there is not a prototypical type of image in this level, but these texts inherit the most common types of images in specialised and texts addressed to a lay audience. Semi-specialised texts contain an intermediate number of images and represent both abstract immaterial concepts inaccessible to people with poor subject-field knowledge and concrete material concepts, easily understandable for any type of recipient.

Texts addressed to a lay audience are produced in asymmetrical situations, where the writer (an expert) must recontextualise specialised concepts in order to make them accessible and comprehensible by lay readers with a lower level of expertise. These texts usually contain iconic, non-abstract, non-dynamic images which represent concepts alluding to real entities directly observable through our sensory system.

To conclude, the understanding of technical concepts is promoted by images containing iconic elements for the graphic description of objects and processes, as well as by low-abstracted images favouring the readability and intelligibility of their semantic content. Such images are particularly relevant for translators in the documentation phase, since normally translators have to become experts in record time (Faber 2004). Nevertheless, other types of images are also useful for the transmission of specialised information, since in highly specialised texts images are not

needed to facilitate understanding; instead images keep up the standards of efficacy requirable for any communicative situation to be successful.

Needless to say that there are certain fields with a visual essence, that is, they necessarily demand the presence of images to represent concepts (Plastic Arts or Architecture). On the contrary, there are more abstract fields, where images are not indispensable resources (Jurisprudence or Philosophy). Anyway, scientific and technical texts seem to be a good substrate for any type of graphics. The notion of level of expertise is closely related to the notion of accessibility. As stated in Tercedor, Prieto and López (2007), the new multimedia formats allow information to be accessible not only to people with disabilities but also to people having different levels of knowledge. As a result, we explore how translators should be aware of accessibility criteria.

4.2. Describing images for different contexts

Considering images as a source of expert information has been one of the focuses of our work. Thinking of basic aspects such as format, perspective, as well as the basic function of the image can be the starting point for the development of further description strategies that will vary in relation to the level of specialisation required. In other words, on many occasions the same image can be used and thus described in different ways according to the audience. Following Jiménez and Seibel (2007), who apply variable definitions to concepts in the field of Coastal Engineering, we have developed register-dependent descriptions for images in specialised contexts. We believe that in the same way as concepts can be defined according to vertical variation criteria, images can also be described at different levels of specialisation. This approach was implemented as part of another image-to-text task carried out with 4th year translation students. The focus was on triggering lexical choice through visualisation. The task, described below, included a set of 19 images for the field of Coastal Engineering. Students had to provide:

(a) Two descriptions, one from a technical perspective and one from a tourist/lay perspective;
(b) Each of the two descriptions had to be written in English, Spanish and a third language of their choice, generally French.
(c) An html document to be part of a web site on one of the topics covered by the pictures.

What follows is a summary of some relevant results of this activity.

Telling the recipients what type of graphic you are describing, provides them with plenty of useful details, especially when trying to make a document accessible. Interestingly, the format of the image is often covert, staying implicit; only through expressions such as "beautiful view", "picture of", "a map representing", "ghost view of", or "cross-section of"

the user can identify the format of the image. In other cases, there is no reference to the fact of the graph being a picture, drawing, and the description starts with vague expressions such as "we can see", "we observe".

Describing processes such as those transmitted by graphs boosts the development of strategies for the proper selection and use of lexical items to describe (a) tendencies: 'fluctuate', 'rise', 'reach a peak', 'increase', 'decrease', 'stabilie'… 'stagnate', and (b) rhythm: 'smoothly', 'unevenly', 'steadily', 'rapidly', 'constantly', 'sharply'.

What follows is an example of different types of images used and the most salient elements of students' descriptions:

	**Technical perspective:** Denotative description of picture, materials, contents. "The dinghies that are used to keep the waters of the port free of rubbish." **Tourist perspective:** Connotation. Ideology. Importance of precision through lexical selection – name given to the boats - to transmit intention: (*zodiacs, balsas, lanchas a motor, lanchas neumáticas, pateras, embarcaciones a motor…*)

Figure 9a. Image description activity. (Source: MarcoCosta database)

	**Technical perspective:** -Denotative description of type of sculpture, material, position: "Sculpture: siren made of bronze fixed on a big stone and placed at the entrance of the port". **Tourist perspective:** -Connotative descriptive elements (underlined): "Se observa la estatua de una sirena tumbada que mira al horizonte apoyada en unas rocas. La estatua está situada en el paseo, desde donde se observan unas barquitas de pesca y la maquinaria portuaria. Al fondo de la imagen aparece la Sierra Nevada. La imagen de la sirena se ha consolidado como símbolo de la cercanía a zonas costeras, como vemos en la imagen a la

	entrada del puerto de Motril". [There is a sculpture of a mermaid lying on a rock gazing at the skyline. The sculpture is located in the seafront, where one can observe fishing boats and the port infrastructure. At the back, there is the Sierra Nevada mountain range. The image of the mermaid has become a symbol of proximity to coastal areas, as can be seen at the entrance to Motril Port]

Figure 9b. Image description activity. (Source: MarcoCosta database)

	**Technical perspective:** -Irrelevant reference to position of elements in image or colors: "Cartel informativo de color azul con letras en amarillo y blanco y algunos elementos en rojo. En la esquina superior izquierda aparece el escudo oficial del Real Club Náutico Motril. Junto a este escudo aparece un dibujo de una barca. El contenido del cartel es el siguiente []:" [Informative panel with yellow and white fonts on a blue background and some red elements. In the top left hand corner there appears a official coat of arms of the Royal Nautical Club of Motril. Beside the coat of arms there appears the drawing of a boat. The panel reads as follows:] -Importance of rendering information transmitted by symbols: "The protection of geological resources is the major priority for the Council of Motril, regarding environmental, sociological and political rules in the area. These panels are intended to inform users about the rules of the area. To prevent adverse ecological effects to the land are the following rules. It is forbidden: To leave objects in the marshlands To light up a fire To play sports with a ball To use the showers

	To go into the waters To enter with a dog" **Tourist perspective** Choice of wrong collocations: *cartel prohibitivo* [prohibitive panel]

Figure 9c. Image description activity. (Source: MarcoCosta database)

Ultimately, students had to provide an html document on a topic illustrated by the pictures as exemplified below:

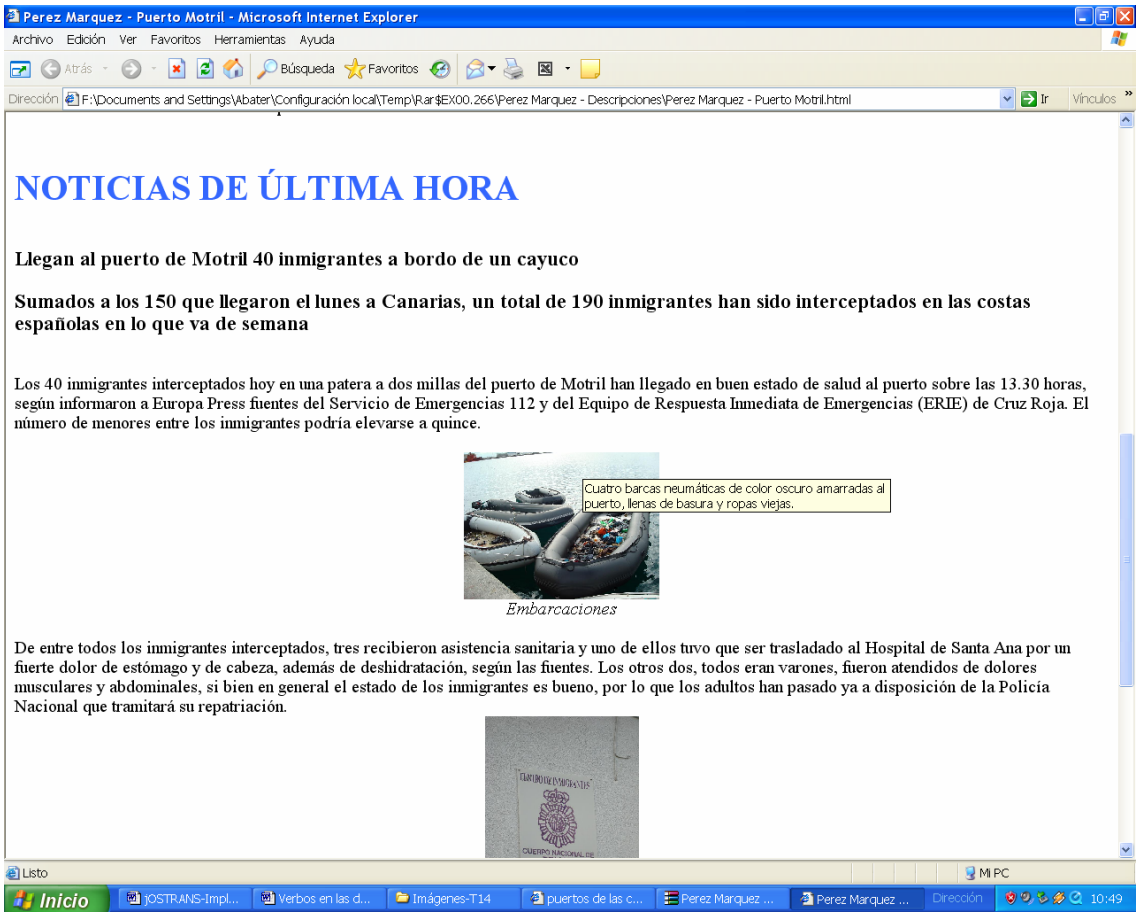


Figure 10. HTML document generated on the basis of graphic material.

This activity clearly boosted creativity and connected translation tasks with technical writing by considering different communicative contexts and perspectives around the same reality. Students got acquainted with domain-specific terminology through visualisation of concepts and reflection on how to verbalise conceptual elements of particular domain-specific frames. Working in groups enhanced creativity both by providing keywords that triggered a 'brainstorming' environment in the classroom and by sharing and discussing different views and world views.

4.3. The translator providing accessibility

Developing description strategies can be applied to translating web texts with accessibility in mind. Special emphasis has been placed on accessibility for the visually impaired and the elaboration of translation of materials with universal design in mind. As a means to develop description strategies for images on the web, several assignments have been carried out (cf Prieto et al. 2007).

We will now describe an assignment for students in the French-Spanish scientific and technical translation classroom. It is based on a French text advertising a prescription drug for respiratory infections. The text contains two images, one (see appendix) with a primary instructive function describing a process, and the other with an appellative function, inviting users to buy the product and showing its different formats.

The aims of the task are: i) to stress the importance of the image-text relation in scientific and technical texts, and ii) to raise students' awareness of accessibility and of the nature of images as non-verbal textual elements. The decoding tasks in the translation process are also stressed when making a text accessible; for example, describing for the visually impaired implies understanding and making explicit the processes being explained and the domain-specific terminology. For this purpose, students described images according to their function (decorative, representative, and organisational), text genre (advertisement, scientific paper, and information leaflet), the degree of specialisation and the sender's and receivers' expectations.

From a methodological perspective, three stages may be followed: (1) detailed observation of the image in relation to the text; (2) selection of relevant aspects to be described, and establishing a logical order of presentation; and (3) describing the image.

With accessibility in mind, the description itself should consider the following aspects:

- Minimising orality markers: 'we have', 'we can see'.
- Choosing simple syntactic structures (descriptions should not overload the text).
- Considering the relevance of incorporating forms and references to colors (depending on the addressee).
- Tackling with care forms based on visual elements: 'it can be observed', 'as shown', 'as seen', etc.
- Concision and precision: reformulating information contained in images demands concision and precision in choosing lexical elements. For example, the first image could read "Cápsula de Broncho-Vaxom y sistemas respiratorio y digestivo que ilustra las 5 etapas por las que pasa el medicamento desde que es ingerido

hasta la creación de anticuerpos en las mucosas respiratorias" [Broncho-Vaxom capsule and respiratory and digestive systems showing the five stages undergone by the drug from its intake to the generation of antibodies in the respiratory mucosae]. Sometimes attention is paid to describing details which are irrelevant and which distract the reader's attention.

- Going from the more central aspects, to the more secondary information. For instance, referring to the snowy mountains in the ad is not as relevant as mentioning that it is a product made by a specific lab in Switzerland. In this sense, it is important to use appropriate linking words for processes, cycles, and graphs. When describing devices or mechanisms, it is important to number and detail all aspects.
- Using specific terminology related to the object or concept represented. For example, it is important to refer to the capsule in the image, as well as to the external appearance of the product.

Moreover, the translator should be aware that the lexical units used contribute to a precise description and reveal the degree of specialisation in the text as indicated by:

- Proper introductory verbal forms: is represented, is described, is depicted by; *se describe, se representan, aparece, tenemos, encontramos,* etc.
- Nouns to transmit notions and adjectives to characterise them.
- Locating aspects in the image through adverbial forms and prepositions: *en el centro, en la parte superior izquierda, justo en el centro, en la parte inferior del texto, a la derecha, en la esquina inferior izquierda, alrededor de* [in the centre, in the top left hand area, in the very centre, in the bottom of the text, to the right, in the bottom left hand corner, around].
- Choosing between denotative and connotative information including interpretative elements: *Aparecen los Alpes suizos nevados en el horizonte sobre un cielo azul que coincide con el mismo color de la cápsula y del envase para transmitir la época del frío; aparece la bandera de Suiza para indicar que el producto ha sido fabricado en Suiza; una bandera suiza anuncia que el medicamento es suizo.*
- Other technical and formatting aspects: locate where the translator will place the description: footnote, caption, alt attribute in html, a whole descriptive paragraph, etc.

All in all, describing images should not interfere with the comprehension of the text but should enhance and facilitate it through the correct identification of the image-text relation.

5. Cultural aspects in the description of images

5.1. Introduction

Bringing students' attention to the management of technical features such as weights and measurements conversions, number checking and terminology consistency is a basic element in a technical translation course. However, other aspects such as culturally-sensitive content are also present in technical documents, and in professional settings translators are often asked to offer insights into the translatability of graphic material, which often implies suitability and understanding of cultural aspects that might be seen as foreign and lead to confusion or rejection. As stated by WWW Consortium (2008) "it is easy to overlook the culture-specific nature of symbolism, behaviour, concepts, body language, humor, etc. You should get feedback on the suitability and relevance of your images, video-clips, and examples from in-country users".

The cultural dimension of images is of great interest, although not always obvious at a first reading. For example, in an advertising campaign by the prestigious specialised newspaper *The Financial Times* in the UK, the inclusion of a well-known picture of Che Guevara with the slogan "Business revolutionaries" worked well for the newspaper's audience in the UK because of the exotic effect of the drawing and the image-slogan play (based on the unusual collocation of "business" and "revolutionaries). However, the image may have very different culturally- and ideologically-sensitive values in the Spanish and Latin-American cultures.

5.2. Translatability of graphic material in advertising

Advertising is then another area where images are especially relevant. In a global market, images should be carefully selected so that they perform the functions of advertising language. These functions are described by Lewis (*apud* Janoschka 2004: 20) as "attention, interest, desire and action", and summarised under the acronym AIDA. As teachers of technical translation, we believe that the inclusion of advertising texts in the classroom: (i) motivates students; (ii) attracts their attention and interest; (iii) stimulates creativity and the desire to learn; and (iv) contributes to the development of professional translation behavior.

To highlight the cultural implications of images, we proposed a questionnaire based on an advertising campaign initiated and promoted by the protected designation of origin "Jamón de Huelva" (dry-cured Spanish ham from Huelva).

Figure 11. Cultural values in advertising. (Source: www.jamondehuelva.com)

The questionnaire, based on the cultural reception of the ad, contained the following items:

1) Explain the metaphor contained in the image and how it relates to the text.

2) What does the slogan "Orgullo Ibérico" [Iberian pride] mean in Spanish? Access the CREA [http://corpus.rae.es/creanet.html] and find other meanings of *ibérico* considering its collocates. Explain the wordplay contained in the slogan.

3) In your opinion, which are the cultural values evoked by the image, from the perspective of encyclopaedic knowledge, political and international points of view?

4) Which slogan would you propose be used with this ad in a French/English general/ cookery magazine?

5) Which is your mother tongue/working language?

The metaphor of the ham representing the Spanish flag and the connection with the slogan is seen clearly by Spanish students, but not by those with other backgrounds. The slogan evokes nationalism and the idea of unity by the Spanish, whereas it is sometimes perceived as chauvinistic by French students. Some Spanish students even said that the ad suggested right wing ideology as reflected in the word *orgullo* and the reference to the unity of Spain, thus indicating connotations associated with images.

The different nuances of words promote discussion in the classroom. In order to explore the semantic prosody of words (López and Tercedor 2008) and the implications of lexical choice, we use corpus data from the

Syncronic Corpus of the Spanish Royal Academy of Language (Corpus de Referencia del Español Actual, CREA). In particular, we search for collocates of a particular term (the adjective *ibérico,* 'Iberian' in the case of this ad), so as to establish particular connotations that a more frequent collocate might indicate.

Interestingly, perception of ham colors is by no means identical for all text recipients: red and white in the ad are described more precisely by Spanish native speakers as brownish red *(rojo amarronado)* and yellowish white *(blanco amarillento)* respectively. The specific colors are a key feature of Iberian ham that makes it unique when compared to similar products. Encyclopedic knowledge related to the concept of the ad is much wider among Spanish students, relating Iberian ham with a way of life, with other products, with health issues and with gastronomy in general.

Those students with French as a mother tongue presented slogans that made no mention to the main distinctive feature of the product, the adjective Iberian:

> *Parfum d'Espagne* [The Parfume of Spain]
> *Retrouvez-vous en Espagne* [Find yourself in Spain again]
> *L'Espagne : dans votre plat, dans votre cœur* [Spain: on your table, in your heart]
> *Faîtes voyager vos sens* [Make your senses travel]

In the English-Spanish class of scientific and technical translation, we propose another activity combining web advertising with humor. The use of humor in the classroom consolidates social relations between peers and between the teacher and the students, and increases motivation. Moreover, it contributes to releasing the stress associated to translating technical documents under time pressure. As a result we present a fresh, amusing and innovative marketing campaign created by an advertising and design agency (Shackleton). The campaign involves the creation and marketing of a new product based on "Serrano ham", the *iJam* (iHam):

- creation of brand name emulating Apple®: iJam 5Js
- creation of main product and other related products: iCheese, iLom ('dry sausage'), etc. and peripherals (iKnife, iBread, iClean).
- creation of logo design (a pork bitten in its back and foreleg) and slogan, both a caricature of Apple®):

iJam, un nuevo y revolucionario concepto en diseño y entretenimiento

- presentation, packaging and documentation (user manual and guided tour in Spanish with English subtitles)

In this activity, students also learn textual conventions and the macrostructure and superstructure of both technical texts dealing with computers and web advertising texts.

Figure 12. Advertising campaign created by the creative agency Shackleton in 2007. (Source: http://ijam.es)

To come to grips with the cultural analysis of images for their adaptation/translation, we have adapted an in-house questionnaire evaluating the translatability of graphic material. Below is a description of such a form, used both to generate graphic material with internationalisation in mind and to translate graphic materials taking culture into account.

(a) Is there any reason why this material will not work well in the target culture (regarding images, slogans, text distribution and colors)
(b) Are there any words or phrases which will be particularly challenging to translate?
(c) Take into account the fact that your translation will be longer than the English original: is this a problem?
(d) Do you have any suggestions for changing the English to avoid problems that may arise in (a) or (b)?
(e) Do you consider the image will function in all registers/levels of specialisation?

Section (a) of the form allows us to analyse macrostructural and superstructural problems of the text; (b) focuses on specific conceptual gaps in the target language; (c) concentrates on format issues and character constraints; (d) is designed with internationalisation in mind. Finally, section (e) can contribute to gain an insight into the adequacy of an image in relation to the level of expertise, and to infer how register is closely related to image choice and not only lexical, stylistic choice.

6. Evaluation of the experience

The task of describing images with and without textual support has been very successful for students and teachers alike. Describing images from texts of different degrees of specialisation has been quite challenging and thought-provoking. Students have been asked to give feedback on every activity carried out in this innovative teaching action. As positive aspects, they have underlined the usefulness of becoming aware of fundamental aspects such as:

- regarding image function as key for the text, since images can offer more pragmatic information than the verbal component of the text and relevant complementary information;
- the importance of focussing on the information transmited by images in scientific and technical translation;
- the role of the translator in describing images for accessibility purposes;
- the role of the translation assignment in deciding descriptive strategies.

Students have also pointed out that these sorts of activities facilitate the learning of domain-specific terminology and boost creativity through the analysis of images and the development of TAPs for their description.

Some drawbacks have also been identified, such as the difficulty of describing images without textual support. Most students have agreed on the need to develop further activities regarding images within more working contexts, and on the importance of having the descriptions assessed by different types of users according to their expectations.

7. Conclusions

The visualisation and description of images from different perspectives trigger creativity in translation work, and help to develop pertinent documentation and translation strategies. As a result, translation courses should include activities involving the analysis and description of images, and the development of strategies that link the visual and the verbal component of the text with previous and newly acquired knowledge.

In this paper we have illustrated methods for the integration of image analysis and description in translation courses, with particular emphasis on technical translation and localisation. We believe that within current technical translation contexts, training in image analysis and description is most pertinent not just because our lives are more audiovisual than ever, but because when describing images, students learn important aspects such as ideology, intention of the sender, image function and receiver expectations.

Notes

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[2] For more information, see Prieto Velasco (2008).

[3] The alt attribute provides an alternative text for images or image maps contained in the document. It is useful for users with text-based browsers or with handheld devices and for visually impaired users, among others.

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Biographies

Maribel Tercedor Sánchez teaches scientific and technical translation, and audiovisual translation (localisation and subtitling) at the Faculty of Translation and Interpreting of the University of Granada, where she is a Senior Lecturer. Her principal research interests lie in the areas of terminology, scientific and technical translation, accessibility in audiovisual translation, and translation technology. She can be reached at itercedo@ugr.es.

Esperanza Alarcón Navío is a Senior Lecturer at the Faculty of Translation and Interpreting of the University of Granada (Spain). She teaches scientific and technical translation and holds degrees from the University of Granada and the Autonomous University of Madrid. Her current research deals with scientific and technical translation, legal translation, and French slang translation. She can be reached at ealarcon@ugr.es.

Juan Antonio Prieto Velasco holds a PhD in Translation and Interpreting from the University of Granada. His thesis is on the relationship between graphic information and specialised discourse. He has lectured in Terminology and Computer Science applied to Translation and his main research interests are terminology, specialised knowledge representation and scientific and technical translation. He can be reached at japrieto@ugr.es.

Clara Inés López Rodríguez teaches scientific and technical translation at the Faculty of Translation and Interpreting of the University of Granada (Spain), where she is a senior lecturer. She holds degrees from the Universities of Granada and Portsmouth. Her PhD thesis is on the relation between lexical cohesion, text type and medical translation. Her current research deals with scientific translation, terminology, and the application of corpus linguistics and e-learning to translation. She can be reached at clarailr@ugr.es