

Interpretative Exhibitions on a Budget

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What we hope you will get from this is an understanding of the factors that impact on the creation an exhibition- budget being only one of these. And that there is a process common to all exhibitions, one that can help you make the best use of your time, money and resources and ultimately help create an exhibition that works for your audience.

Structure of the workshop.

Each group is being given an exhibition scenario. The scenario describes the type of exhibition, the resources and the target audience. With this you will be taken through a series of exercises that illustrate the process for creating an exhibition. The exercises are simplified to meet time constraints of the workshop.

In reality the time given to developing each point in the exercises would involve quite a bit of discussion over a number of weeks, the curator would most likely know all the facts about a collection or story or theme, the exhibition would have a number of different audience types, a number of different messages and layering of messages.

Here the exhibition scenario is very basic, there is one audience type suggested and 3 messages to be identified.

Part One Interpretative Approach pages 1-18

Here we hope you will be able to identify your objectives, who is the exhibition for, what will the exhibition say your audience and how will these messages meet your objectives and the needs of you audience.

Part Two Creating the Exhibition, pages 19-28

Translating the interpretative approach into a physical reality. How “messages” are translated into physical space, what the practicalities are, facts on costs, potential suppliers and a further reading list for your enjoyment.

Some further information sources and suppliers names are on pages 29 & 30

IMA ANNUAL CONFERENCE WORKSHOP FEB 2010

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EXHIBITION **Bread**

RESOURCES **Actual ingredients**
Loaves, slices
Utensils

TYPE **Temporary**

KEY AUDIENCE **Children age 7–12 years**

BUDGET **€5,000**

EXHIBITION **Love**

RESOURCES **Paintings Collection
2 tour guides**

TYPE **Temporary**

KEY AUDIENCE **Active retirement & Coach groups**

BUDGET **€10,000**

EXHIBITION **the teatable**

RESOURCES **Collection of crockery
images and photographs of tea time scenes**

TYPE **Permanent**

KEY AUDIENCE **Family groups**

BUDGET **€15,000**

19th c Bathroom

EXHIBITION

full historic interior

RESOURCES

**images and period documents
1 guide**

TYPE

Permanent

KEY AUDIENCE

Tourists

BUDGET

€20,000

Meitheal

EXHIBITION

RESOURCES **Audio recordings
period imagery, photos and documents
1 attendant**

TYPE **Permanent**

KEY AUDIENCE **Special Interest**

BUDGET **€40,000**

EXHIBITION **Money**

RESOURCES **selection of tokens, coinage and
money spanning 200 years
1 guide**

TYPE **Permanent**

KEY AUDIENCE **Transition year student groups with teacher**

BUDGET **€50,000**

First, outline your objectives...

Consider:

- the ethos of your site/institution
- other cultural or heritage or experience in your locality
- how unique you are
- what have you got that others don't
- how well known or unknown you are
- why people will come to your exhibition

Objectives may include all or some of the following:

- to communicate a particular story, event or social issue, a skill,
- to communicate a process or a style of life
- to create an educational resource
- to create a “must see” attraction or cultural destination
- to create a new experience within an existing site
- to generate or increase revenue
- to improve the performance of your site
- to establish links with other complimentary sites
- to improve your reputation
- to reinforce the mission and ethos of you institution

PART ONE
INTERPRETATIVE APPROACH 1.

First, outline your objectives...

WRITE OUT 3 OBJECTIVES FOR YOUR EXHIBITION

...then identify audience needs

Having a target audience does not mean excluding other audiences. All audiences regardless of specific profile need ease of physical access; a non-threatening, safe and secure environment; clear orientation and guidance on how to make the most of their time.

Some different needs and expectations:

School groups (with teacher)

- Pre-booking service with advance information pack
- Visit duration 1.5 to 2 hours max
- Provision of small group activities with clear objectives and outcomes
- Relationship to school curriculum, post visit exercises
- Reward for attending/ partaking

Tourists

- Authenticity, links to other sites
- Coach parties – pre-booking service

Family

- Family orientated activities

Active Retirement

- One to one assistance, comfort /rest points

Special Interest

- Accuracy, a research resource, access to detailed specialist information.
- Guidance post visit information sources

Small children (with adults)

- Practical guidance and friendly assistance (not directives)
- “Positive Play” activity not based on a particularly right or wrong result
- Children can spend up to 40 minutes at one activity.
- “Family” bathrooms, water fountains
- 40% are non-readers

...then identify audience needs

Consider:

- are they seasonal?
- how will they arrive?
- how many will arrive at one time?
- how long will they stay?
- where are they coming from and where are they going to next?
- with coach groups a very important person is the coach driver – a much desired repeat visitor! Consider his/her needs also; to get a break away from everyone for a couple of hours, relax, make calls, even watch tv?

People are/ have	Per 1000
Blind	1
Cannot use fingers	1
Are Dyslexic	10
Wheel Chair Users	10
Have Low vision	13
Reduced co-ordination	14
Reduced strength	27
Intellectually impaired	37
Require walking aid	56
Allergic	100
Elderly	100
Hearing impairment	140
Total	509

The Centre for Universal Accessibility, University of Ulster

PART ONE
INTERPRETATIVE APPROACH 2.

...then identify audience needs

WRITE OUT WHAT YOU MUST PROVIDE YOUR TARGET AUDIENCE WITH BEFORE, DURING AND AFTER THEIR SITE VISIT

What will your messages be?

Messages can be ranked (or layered) in terms of importance

Main: one key message, the most important of the exhibition

Primary: those the Museum must communicate

Secondary: those the museum should communicate

Tertiary: those that would be nice to include.*

Messages should make the point quickly, be relevant to your audience, have something for all ages, be memorable, be clear, be relevant, link to each other and link to other programmes such as school curriculum.

Consider:

- does your message rely on staff for interpretation?**
- is it independent?**
- does it enable a number of different methods of interpretation?**
- does the collection support the message?**
- does it require a lot or a little research?**

* McLean Kathleen, *Planning for People in Museum Exhibitions*, 1993, Association of Science-Technology Centers

PART ONE
INTERPRETATIVE APPROACH 3.

What will your messages be?

WRITE OUT THE MAIN MESSAGE AND TWO PRIMARY MESSAGES FOR YOUR EXHIBITION

What would you like visitors to experience?

For people attending, exhibitions are experiences. What people do and how they feel and respond is as important as what they learn. While the 'experience' is individual, the qualities visitors look for are:

Personal connection: relevance to cultural background, social perspective, significance to personal life

Social interaction: sharing time, thoughts, ideas insights with family, friends, others

Learning: imagination, positive play, analysis

Interaction: exploration, discovery, challenge, reward

Participation: pleasure, fun, entertainment, novelty, surprise

Reflection

Consider:

When visitors come

- what do you want them to do?
- what do you want them to feel?

When visitors leave

- what do you want them to remember and to be thinking about?
- do you want them to come back?

What would you like visitors to experience?

WRITE OUT WHAT YOUR TARGET AUDIENCE WILL GET FROM EACH MESSAGE
(THE DESIRED EXPERIENCE)

MESSAGES

VISITOR EXPERIENCE

How can you best use your resources?

The ideal resource package for an exhibition would include educators, market researchers, visitor interviews and surveys, dedicated exhibition researchers, terrific relationships with other institutions for sharing information, borrowing exhibits and that extra money to create prototypes etc. But limited resources can serve your objectives.

In meeting visitor needs, staff/docents/explainers can provide guidance, orientation, information and assistance.

They can deliver a message to your audience by:

- creating context
- storytelling
- presenting games and challenges
- giving demonstrations.

They can:

- ask the visitors questions about what they think, like, feel about something
- encourage interaction between visitors
- invite them to record their own memories in an exhibition.

Visitor access, message and meaning can be implied by the display of objects

- in isolation or in groups
- displaying the object in working mode
- in an “environmental” setting
- in juxtaposition with a contemporary equivalent
- in a chronological and linear display

Consider:

- can you get additional material, advice and/or guidance from other sources such as local newspapers, other museums, schools, tourism agencies.**

How can you best use your resources?

WRITE HOW YOUR RESOURCES CAN SERVE THE MESSAGES, VISITOR NEEDS AND VISITOR EXPERIENCE

	MESSAGES	VISITOR NEEDS	VISITOR EXPERIENCE
STAFF			
COLLECTION			
OTHERS			

Now summarise...

giving consideration to how messages, experience and use of resources will meet your objectives—increase revenue, improve performance, improve reputation.

OBJECTIVES

VISITOR PROFILE AND NEEDS

KEY MESSAGES

EXPERIENCE

USE OF RESOURCES

Congratulations!

At this point you have a directive for the design and implementation of your exhibition.

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Part Two----Creating the Exhibition

How "messages" are translated into physical space, what the practicalities are, budgets, some suppliers and a further reading list.

Exhibition Design and Media

Messages can be conveyed through;

The environment: creating different spatial feelings and moods- sombre, spiritual, theatrical, a scientific laboratory style, a dense "Aladdin's cave"

Sight: lighting, colour, imagery, the careful juxtaposition of elements, the creation of specific views through a space.....

Sound: noise or silence, music, sound effects, talking....

Touch: materials, textures..

Activity: dance, acting, dressing up, games, specific tasks, interactives...

There are many different ways and media tools available for communicating a message to your audience. The final choice is based on selection criteria - what best supports the message, safety, flexibility, what provides access to a large number at one time, maintenance, operational requirements, updating, the life span and cost.

Practicalities

Law and regulations:

Client responsibilities to the visitor, health and safety, disability access

Fire-rating, emergency access and egress, safety

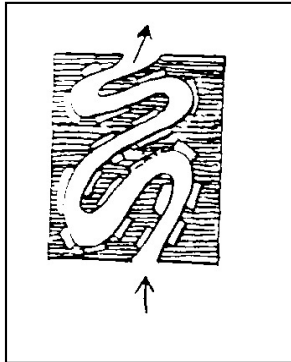
Standards: Museum operation, conservation, object handling, security and display

Guidelines: Universal Access, legibility.

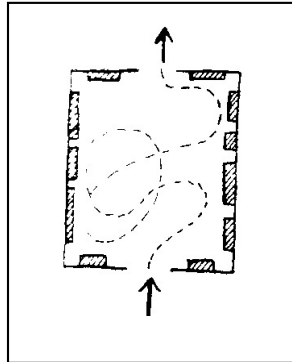
Plan layout and circulation

A layout will be determined by a number of factors.

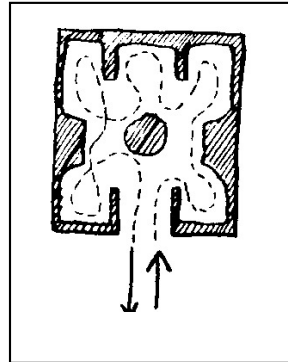
If the editorial sequence of the exhibition is chronological or thematic or a straightforward story with beginning, middle or end. A group of 30 arrive (school or coach) should be able to move easily through the exhibition and not suffer crowding at any one point or exhibit (bottle-necking)



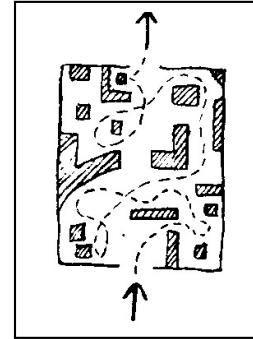
Path or Linear



Open



Radial



Random

Images taken from McLean Kathleen, *Planning for People in Museum Exhibitions*, 1993, Association of Science-Technology Centers

Never block the view of a fire exit or EE signage

Allow for the maximum number of people that will attend the exhibition in one visit.

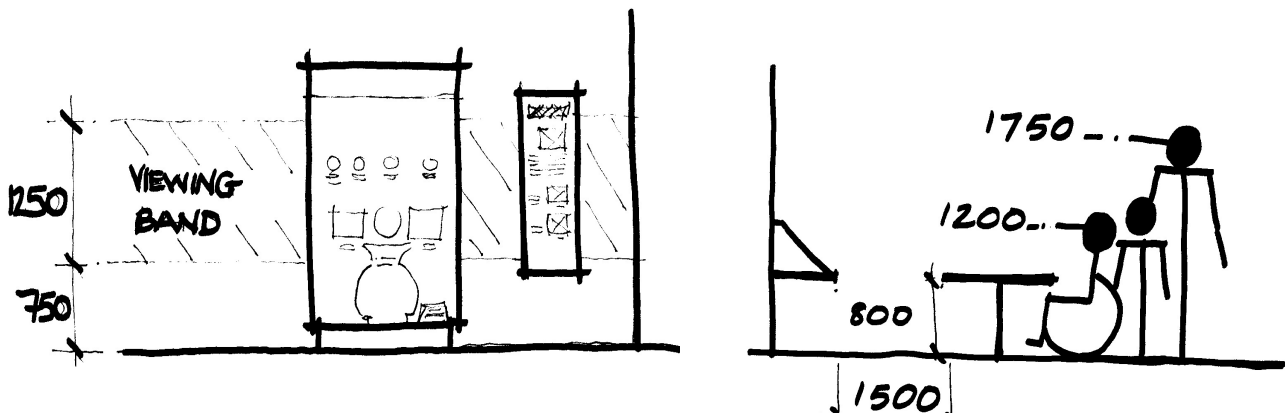
Allow 500mm² per person moving through a space or gathering at one point.

Allow a minimum of 1500mm between structures (cases/ displays etc) placed on the floor. This is to allow for people to stand at an exhibit and others to pass comfortably.

Allow for wheel chair access- minimum of 900 mm pathway going one way.

Location of power supply points are important as you cannot have cables trailing across the floor.

Vertical layouts



The ideal viewing band is between 750 mm off the ground up to 1950 off the ground (the height of a door). While an image can go from the ground up to the ceiling, text should never be positioned lower than 750mm. Display/ work tops should be positioned approx 800 off the ground.

Exhibit Structures

These can range from elaborate sophisticated constructions or a simple table from IKEA. In most instances structures must comply with Class 1 fire rating (material such as Class 1 FR MDF) though in large open plan areas this may be raised to Class 0 (material such as plaster board).

Two Dimensional Exhibit Media

Activity sheets, hand outs, guides, charts, diagrams, imagery, maps, text panels

The smallest text (say a caption for an image) should not be smaller than 18pt. The title for the panel may be much bigger and the body text about 30pt. Allow approximately 14 words across a line and about. The design can demonstrate the message.

By about 3700 BC, most people in Ireland lived as farmers. With polished stone axes and tools called adzes, they worked together to clear the dense forests. In the open spaces, they established permanent farming settlements.

Family units lived in timber houses. In fields nearby, they used digging sticks and early ploughs, called ards, to cultivate the land. They grew an early variety of wheat, called emmer, which they ground in saddle querns. They also created and traded pottery.

Cattle and sheep provided farmers with milk and meat. Yet they still supplemented their diets with wild fish and game. And they continued to use flint knives, arrowheads and scrapers to kill and butcher animals.

ICONS — immediately locate the viewer in a particular context and allow them to make links easily with similarly flagged information.

HEADLINE — informs, entices, intrigues and whets the appetite.

MAIN BODY TEXT — delivers the main thrust of the story. A strong, legible typeface and colour combination. There should be no effort required to read.

CAPTIONS — Deliver the finer detail and inform of other related topics and areas of interest.

County Museum, Dundalk, Co Louth

While the specific responsibility for the design and production of all two-dimensional material lies with the graphic designer, the role and input of the graphic designer exceeds this particular medium. The legibility and emphasis of message and material choice are integral to the whole design process. Graphic design cannot be considered independently of the three dimensional and structural environment of the exhibition. Both skills meet and overlap, both share the responsibility of imparting the message to the visitor — they are interdependent.

Participatory, Interactive and Demonstration Media

Participatory is a one way action- visitor does something and that is the end of it- for example the visitor opens something, lifts something, writes something. Jig saw puzzles, posting comments or views, opening a drawer to see an object are types of participatory media

Interactive- is two way. The visitor does something and a response or reaction follows. Speaking to a guide is (normally) interactive, partaking in an activity with another person, board games, discovery exercises and challenges are interactive.

Demonstrations include staff demonstrating particular activities, (throwing a pot on a wheel) mechanical or digital models (how a draw bridge works) and working replicas of artefacts (an electric dynamo)

This type of media can enliven a story, provide different perspectives, engage the audience with multi-layered activity. The choice should be appropriate to the message and consider how many people can use the media at any one time. The design should address the physical and intellectual abilities of the end user.

Models

Models can describe concepts (how things change over time), processes, (technical / evolutionary) things that no longer exist(dinosaurs) or that you cannot see(molecules) These can be static, mechanical or digital presentations.

Audio Visual

Depending on what is ultimately required, making a film from scratch can a very elaborate and costly process.

Technology does allow for simple productions such as taking a vox-pop on a particular issue, recording memoirs and interviews with your visitors. This can be very valuable to the overall exhibition experience- it connects with the visitor, enables them to contribute to the exhibition, and can also be a visitor survey tool.

Most AV presentations involve existing film footage -often old footage which needs to be digitally upgraded. For people standing the average length of a film should be kept to 4 minutes.

The audio aspect needs to be considered- how easily a person can hear it and on quiet days how annoying it can be for the staff. By running subtitles on a screen the sound can be reduced and this of course helps the hard of hearing. An induction loop should be provided in an AV theatre.

Audio only.

Telephone handsets are preferable to headphones and should include inductive couplers. A written transcript of audios should be available for people who have severe hearing difficulty hearing.

Lighting- exhibits and people

Natural and artificial lighting influences atmosphere, can guide people through a space, can have an emotional effect, is critical to safety and comfort of the visitor and critical to the safety of object. In areas where lighting must be very low the light level should be reduced slowly as the person approaches the gallery so their eyes can adjust to the change.

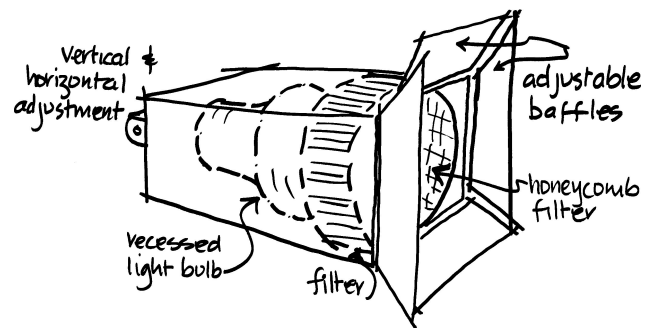
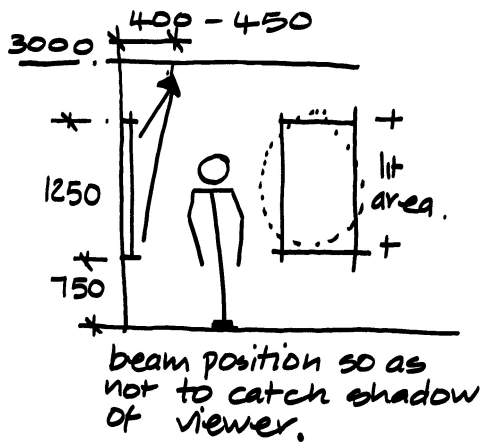
In general, for a 3 meter high ceiling, light fittings should be fixed approximately 450 mm out from the wall and cast onto the panel. The further back a light fitting is the most likely it will cast the shadow of the person trying to read the panel.

When ordering light fittings, go for a reputable brand name, track mounted and usually low voltage.

Keep a written record of each type of lamp used (wattage, colour and beam angle) and it's location in the exhibition. Consideration should be given to light levels needed when cleaning an exhibition area.

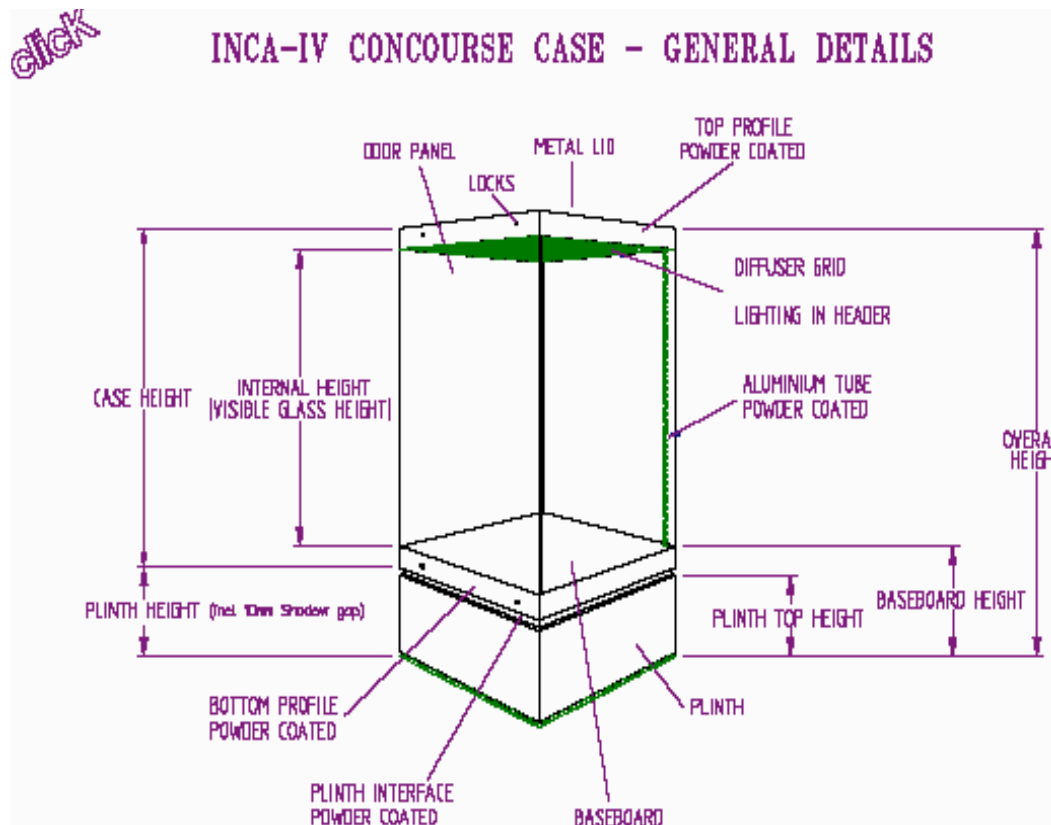
A good fitting should have

- Recessed or hidden lamp (bulb)
- Adjustable baffles so light can be directed
- Allow for different beam angles and intensities of light
- Filter accessories so that light colour can be changed



Showcases

Main features: Image from Click Netherfield



If you are making a display case use acrylic, glass, natural timber or formaldehyde free MDF known as ZFMDF

Do not place objects directly on mdf- have a material in between such as glass, acrylic, fabric or solid PVC.

Never place silver in a case or box made from MDF

Never use felt in a display case

Fabric from Creation Baumann "Ultra" Range is approved by the British Museum for use in showcases. Approximately €30 per linear meter- comes 1500 wide.

Should be ordered "on the roll" not folded. There are a huge range of colours available

Up to 1 inch of dust builds up per month in exhibition areas. If your object displays/ cases are not dust proof or tightly sealed, they will require cleaning at least once a month

Collection display

List everything that may be available identifying the dimensions, condition, restoration/ cleaning needs and display restrictions.

Identify the display requirements- open plinth, floor standing with barrier, simple dust protection, sealed showcase, object supports, cradles etc.

Look at possible groupings and positions of objects in terms of your storyline/message.

Allow for the position of captions when planning object layouts.

Environmental control is crucial for paper, textile and organic material; this includes temperature, light level and humidity.

If an object is light sensitive (textile, paper) consider putting a curtain or roller blind in front of the display case glass with a message to the visitor inviting them to lift the cover back and then replace. Information on the display can be printed on the cover. (Visitors having to do this is "participatory")

For "home made" environmental control" in a showcase measuring 1000 x 500mm x 350 high: Create a false base for your display case from 6mm or 12mm solid PVC with 6-8 holes about 15mm diameter drilled through it. Wrap conservation grade fabric (Creation Baumann) around the PVC panel and staple in place at the rear - do not glue. The holes are no longer visible.

Place a tray or small bags of pre conditioned silica gel in the display case. Put 4 blocks of natural timber or acrylic, 25mm high, in the case and sit the fabric wrapped panel on top.

Silica gel controls the humidity in the case. It can be purchased pre-conditioned to the desired humidity level (average 50 RH). It must be replaced after the given length of time. The amount of gel required depends on the volume of the case and the level of humidity in the environment.)

Budgets

Production costs for permanent exhibitions can range from less than €000's to many €million.

In budgeting for the full construction of a permanent exhibition allow €3,000 per square meter for an initial budget guide.

This does not include any building works, marketing or promotional work, professional fees (design, research, QS,) or VAT.

Joinery	37.53%
Electrical	9.06%
AV / computer elements	17.35%
Graphic Product.	6.18%
Models- replica/demo	16.87%
Research/ copyright fees	2.36%
Other Items e.g. exhibit & S/C dressing, photography, conservation etc	10.65%

% allocation to exhibition elements based on costs of four projects of various sizes.

Showcases

For the size shown in the general specification a showcase can cost between €5,000 and €8,000 per unit. Click-Netherfield provides a variety of standard cases and also manufacture bespoke designs.

Audio Visual and Computer based Interactive productions

Costs are often split into production- programme /production design and hardware- the screens, speakers, wiring etc. Audio visual production costs are dependant on the length of time for final production (average 3-5 minutes), sound, running captions and the quality of the original material being edited.

Look for plasma screen that have a USB socket. While the domestic DVD player or drive unit is quite suitable a USB key can hold the film/audio and plug directly into the screen, eliminating cables and need for extra power supply to a DVD player.

Interactive Replica and demonstration models

Computer based interactives range in cost from €5,000 to €25,000 + for production. The cost for replicas and demonstration models depend on the detail, complexity, safety and security requirements.

Graphic production

Design and production of the artwork for a graphic panel can range from €150 per panel to €400 per panel depending on complexity of the design. Designers usually agree a fixed fee for a total number and separate out costs for variations. Design does not include the production of special illustrations.

Scanning of imagery can be up to	€20 - €150 per image
Special Illustrations range from	€500 to €1000's
Production of a graphic panel on heavy card wrapped sealed and installed	€80
Production of graphic panel on foam core board	€120 (suitable for a temporary exhibition)
Production of a graphic panel on 12 mm MDF	€220- €350
Production of a graphic panel on MDF, with 3-D lettering and special finishes	€500
Installation cost dependant on access and timing	

Shop around- prices are coming down!

Simple Order of Tasks

Research

List the institutions/archives/ specialist advisors you need for sources of detailed information and material such as images, footage, recordings, objects etc. Check the lead time for acquiring material. Check loan conditions and copyright fees. Do your research and order the goods.

Design and editorial layout

Draw up the sequence of the story or messages, what message goes where, how it will be presented and allocate what you already have to support that message (collection images etc) Identify what extra "elements" you need to get this could range from staff roles for activities/ demonstrations, physical fittings such as graphic panels, lighting for the panels, costumes, games and then quantify these elements- for example three cases, 10 graphic panels, a guide map, a brochure, 2 models and interactive, a flat screen monitor and drive unit...

Media

For the different media chosen, list what is required to produce them and make them work when in the exhibition- this will cover things like power supply, water supply, images, text, references for models, tools for demonstrations etc.

Some of these elements may themselves require specialist work- for example an editor for text, an electrician for power supply, a photographer for images.

Acquiring Costs

For the media elements that must be specially created- write up briefs for suppliers/ contractors.

The brief should include a detailed description of what it is you want, the audience type it is for, the number who will use it, how you want it to perform, what aspect of story or message it is to tell and what it will contain and when you want the finished "item". As well as getting a cost, ask the supplier for a programme of work outlining what will be done in stages that fit the deadline. The brief should also include what you will provide the supplier or contractor with.

Try to get three competitive costs for the different elements but also ask suppliers for examples and references of previous work. This is not always necessary or possible when it comes to very specialist services.

On getting costs do your budget and see what might be phased in later if it cannot be got now. This may mean re-jigging the original plan

Contract the works

Production

Whether on or off site make arrangements to see the work in progress.

Installation

This is where you might experience the most difficulty as different suppliers come to site it requires tight co-ordination.

The principle is all dirty work must be carried out first. This is anything that involves creating dust! Follow with painting work, then hardware installations such as graphic panels, monitors, furniture, then delicate installations such as digital programmes and light fittings and finally the sensitive elements such as your objects, dressing and any items that require security. Finally focus your lights.

...or get in the professionals and stop worrying!

Professional Skills

Exhibitions are as varied at their subject matter-visual arts, science and technology, natural environment, historic site, social, political, environmental, religious....

They may have a narrative base with a specific storyline, activities base, thematic base...

They may be permanent, temporary or travelling.

Whatever the nature of the exhibition, the process for creating a successful solution demands a robust team with strong in communication, creative innovation, technical know how and competent logistical skills.

The key professional design skills required to implement an exhibition project would include:

Interpretative Planning

This service includes reviewing the research materials, assessing the site and building, assessing the existing/ target audience, producing an overall development plan outline, identify throughput and visitor flow, identifying the messages; the visitor experience(s), facilities and amenities required and a collections and conservation plan. Bringing all the elements together into an interpretative plan with budget, timescale allocation of resources and further resources required.

Exhibit Design

Three dimensional design addresses flooring, lighting, showcases, models, display housings, structures and other furniture (fixed or loose) and all finishes. The stages of work include overall layout and editorial planning, exhibit detailing, technical and material specifications. The exhibition designer is responsible for briefing, programming and co-ordinating all the work, project management and controlling costs.

Graphic or two dimensional design addresses promotional materials, branding, brochures, signage (internal or external) exhibition text panels, educational literature and exhibition elements such as text panels, imagery, instructional, captions etc.

Research

A researcher collates all the necessary information for the designers – the artefacts list and dimensions, factual content, images and reference materials. The researcher usually works very closely with the client initially and then with the designers and specialist advisors as the concept design is being generated. The researcher may also prepare the draft text for exhibition elements such as panels and scripts for audio-visual productions.

Editorial

Editorial work is extremely specialised and styled to suit the nature of the exhibition and the audience i.e. for promotional exhibitions a copy editor, for historical exhibitions publishing editors etc.

Specialist advisors (if not part of the client body) are often needed to assist with the true representation of elements within an exhibition. For example if a display is dealing with geology and advisor may be sought to confirm that a particular creative approach does not misinform a visitor.

Fees

Fees are calculated on a daily rate or as a percentage of the budget. The Institute of Designers of Ireland can provide guidelines on commissioning designers, what to expect and what rates. Regardless of the size of any contract, all research, client input, design and production process take a certain minimum time. It is, therefore, essential for the client and designers to agree and strictly adhere to a realistic programme for the various stages. Slippage within the programme always has a time and cost implication to a project.

Some Information sources

The Disability Act 2005

The National Disability Authority/Centre for Excellence in Universal Design

Smithsonian Institute guidelines on access to exhibitions-
www.si.edu/opa/accessibility/exdesign/start

Second Level Support Services Transition Year Programme
Blackrock Education Centre, Kill Avenue, Dún Laoghaire, Co. Dublin
tel 01 2365023 email: ty@slss.ie www.slss.ie

National Learning Network Ltd (provides staff training on communicating with people with disabilities)
Roslyn Park, Sandymount, Dublin 4
Tel 01 2057200 email info@nlm.ie

Some Further Reading

McLean Kathleen, [Planning for People in Museum Exhibitions](#), 1993, Association of Science-Technology Centers

Barry Siuban, [Organising an Exhibition](#), 1991, Gandon Editions

Thomson Garry, [The Museum Environment](#), 1986, Butterworth & Co.

the National Museums of Scotland, "[Designing Exhibitions to Include People with Disabilities, A Practical Guide](#)"

Nolan Gail, [Designing Exhibition to Include People with Disabilities](#), 1997, NMS Publishing

Velarde Giles, [Designing Exhibitions](#), 2001, Ashgate Publishing Limited

Barker Peter, Barrick Jon, Wilson Rod, [Building Sight](#), 1995, HMSO Publications

Kinsella Gerry, [Buildings For Everyone](#), National Rehabilitation Board, 1998

Bsi, British Standard Document, [Recommendations for the storage and exhibition of archival documents, 2000](#)

Some Suppliers

Fabric

Form and Line, 63 Lower Beechwood Ave, Ranelagh Dublin 6. Tel 01 4911201, Fax: 01 4911202.

Showcases

Click Netherfield Ltd. 1a Goodsons mews, Wellington street, Thame, Oxfordshire, OX9 3BX tel: + 44 (0) 1844 212574 www.clicknetherfield.com

JDB 25 Weatherwell Industrial Estate, Clondalkin Dublin 22, tel 01 457 0887

Conservation Advice

Paper Conservation, Studio, Tower Complex, Pearse St Dublin 2, tel 6775655

Audio Visual Productions and Digital Interactives

X Communications, Morrison Chambers 32 Nassau Street Dublin 2 tel 01 67070662

Fitting Image, 21 Bluebell Business Park Old Naas Road Dublin 12. tel 01 460 2112.

M3 Productions, 3 Lowerviewville, Shanakiel, Cork. Tel: 021 4397389

Centre Screen, East Gate Building, Castle Street, Castlefield, Manchester, +44 (0)161 832 7151

Mechanical interactives, replicas, models and set pieces

Millhouse Art, The Old Millhouse, Kilbride, Co Wicklow, Tel 0404 48185

Shadow Creations, 14N Greenogue Industrial Estate, Rathcoole, Dublin, tel 01-4124744

Northcross, Northcross Works, Macmerry Industrial Estate, Macmerry, East Lothian, EH33 1RD Edinburgh, tel 0044 1875 617500

H&H Sculptures, Unit 2, Sherwood Court, Thurston Road, Lewisham, London SE13 7SD tel 0208 2971474

Specialist Lighting Design

Lighting Design Associates, 13 Castlepark Rd Sandycove Co Dublin

Sutton Vane Associates, Britannia House, 1 Glenthorne Road, London, W6 OLH tel 020 85639370

Graham Festenstein, Myrtle Cottage, The Street, Thurlow, Haverhill, Suffolk, CB9 7LA, tel 01440 783709

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Uppercase, 7 Pope's Quay, Cork, tel 021 4211300

Kernow Signs, Cloonalison, Charlestown, Co Mayo, Mob 087 1275675

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