

ARTS OF CAMPAIGNING

AN INAUGURAL LECTURE, DELIVERED

AT

ALDERSHOT,

ON THE OPENING OF HIS MUSEUM AND LABORATORY
IN THE SOUTH CAMP, V, Nos. 18 AND 20,

BY FRANCIS GALTON, ESQ.

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BY THE SAME AUTHOR.

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ARTS OF CAMPAIGNING.

GENTLEMEN, — I have invited your attendance this afternoon, that I might have an opportunity of explaining in a public manner the objects for which I have come here, aided and cordially recognised by Lords Panmure and Hardinge, and by the General commanding this camp. I do not presume to instruct you in military matters. I am a civilian; and it is only in that part of a soldier's life where his wants and methods of meeting them are necessarily identical with those used by civilians, that I claim any right to interfere. I shall keep aloof from all matters of drill and regimental discipline, and of that complex

system of organisation by which the members of a vast army are animated, every one of them, by the spirit of one commander, and confine myself entirely to civil matters. I only profess to teach those Arts and Contrivances which stand the soldier in stead when military organisation fails to help him. I wish to show how he may be self-sufficing and self-sustaining, as well as that efficient part of a great military machine, into which you, gentlemen, as officers, take care that he is fashioned. We all acknowledge how justly proverbial are the chances of war, and we know that every soldier who enters the field risks each day of his life a chance of being thrown, in some degree, on his own resources. There is not a chapter in the history of war, whether it be in modern or ancient times, where we are not met with that dread of all Generals, "deficiency of supplies;" at one time it is a deficiency of food, at another, of tools and utensils. At another time, it is of skilled

labour ; at another, of raw materials to work upon. Under these circumstances, the soldier must either sit still and suffer, or else he must bestir himself to meet the difficulty. No military organisations will help him ; the existence of any want at all proves that organised systems have failed in supplying that want ; and therefore if the soldier is without skill to shift for himself, and to supply with his own brain and hands what is wanting, he must go without it. Now, so far as he is liable to be thrown upon his own resources, to exactly the same degree does he want that kind of knowledge and dexterity which has nothing to do with matters of drill and discipline, but which is precisely what persons who are the very opposites of soldiers—I mean travellers in rude countries, emigrants, missionaries, and so forth—have to make an actual profession of. The soldier, as such, depends upon a system ; he is part of a great machine, that does its work efficiently, just as all other

machines do, by each part of it having some appointed and special work : a traveller or an emigrant is not part of a system ; he is all in all to himself, and cannot make sure of indulging in a single comfort which his own hands are unable to procure.

The soldier, I say, is part of a machine that does its work admirably so long as its pieces are whole and in gear, but which is liable to give way under pressure. The emigrant, though he gets through his work in a rough sort of way, and often with great waste of labour, depends solely upon himself and not upon others ; and, therefore, when organisation breaks down, it is then that qualities such as he possesses are able to come in and shield the soldier from disaster.

Now there is nothing in the professional education of military men to teach them this knowledge, which is the life-stay of travellers and emigrants. And yet it is an art most highly prized by all campaigners. All soldiers

who spend years in the field learn much of it, but they do so under the occasional teachings of hard necessity, which most likely have proved fatal to an equal number of their comrades, whose constitutions had sunk under the pressure of hardships which these had survived, but which neither of them had skill to evade, or knowledge to resist. Now, what I want, is, to do away with the necessity of this cruel apprenticeship, and by varied instruction in this camp, to enable the young soldier to take the field with no small portion of the knowledge of the oldest campaigner. It is your science, gentlemen, that explains the art of handling men in masses, of organising, and of commanding. My science is a humbler one, and must be classed at a very distant point on the scale of knowledge ; but, gentlemen, I protest against its being disregarded ; and I am sure you will agree with me that an army of soldiers, each man of whom can take care of himself, is in a far more efficient

state than another composed of men no better drilled, while individually they are almost helpless. In easy-going times there may be little apparent difference between the two ; but it is when supplies fail, and the army is harassed, and the weather is cruel, and calamities fall thick, that the knowledge I profess to teach, and which I earnestly urge you to learn, is the raft that saves. Nay, I may compare the army that can depend, not on its organisation alone, but also on the self-sufficiency of every unit that forms it, to a life-boat : she will sail and row as well as another, and yet you may water-log her, but you cannot sink her.

I do not profess to explain the complicated processes of manufacture used in civilised countries, but I aim at showing all those ways of obtaining necessaries and what are well called "necessary comforts," that a man may practise when encamped out in the field. And I may remark that this art is more pe-

cularly practised by a traveller than by a settler, for the reason that a settler has plenty of time, and can accumulate materials and stock ; but a traveller is always on the move, and is able to carry little or nothing with him ; the ingenious combination by which he may have supplied any want of yesterday has been left behind him, and he must re-make it to-day if the want recurs. In stating the case broadly, I might say that the settler makes what he may want durably, and once for all ; the traveller meets each want as it arises. The methods of the latter are much simpler and more generally available than those of the former, who, in a rude way, imitates the processes of civilisation. The settler who has a bench to carpenter upon, a forge to smithy with, a log shanty over his head, a fire-place and pots to cook with—rude though all these things may severally be, looks upon the arts of life, and on the ways of satisfying his wants, in quite a different light to a traveller who un-

packs a load of some two hundred weight from his horse's back, in which all his available possessions in the world are contained, and on which he had been living for months, and with which, as a nucleus, he is everywhere able to make himself perfectly at home, and to surround himself with improvised and ample comforts.

I will now attempt to state, in general terms, the methods of instruction that I shall endeavour to pursue.

You must not think, gentlemen, that any person who has once roughed it becomes a proficient in this art of campaigning. It has struck me forcibly during the years in which I have made a study of it, how ignorant the inhabitants and bushrangers of each rude country are of the shifts and contrivances used by those of others, and with what great advantage persons who have roughed it in different lands could combine their information. In reading works of travel, which I

have long done with a view to extracting hints that might help me in systematising a science of campaigning, I cannot tell you how often it has struck me that the narrators have been baffled by difficulties under circumstances which, though unusual to them, are very common to people in other countries, who have their own ingenious ways of surmounting them. And still more frequent is it to read of travellers recording, with the utmost delight, and for the good of others, ingenious discoveries which they had made, after months of inconvenience to themselves, and which not only one or two, but more, previous travellers had equally puzzled out and similarly recorded with a natural satisfaction as their own original inventions. Now it was after travels long since undertaken by me, that I was so much impressed with the advantage of collecting the experiences of all rude nations, and of as many travellers as I could, that when I was carrying on my ex-

plorations of South Africa in 1850-2, I began to plan the making of such a collection : and there as I rode along, I used to jot down all that I could think of, of African and other experiences. This formed a nucleus, to which, since my return in 1852, I have steadily added, reading and inquiring in all directions, and lastly, publishing a little book called the "Art of Travel," which I know that some of you have seen, in which was inserted what I had then to say, so far as I could arrange it in some sort of order, and at no great length. It has since done me good service in making my objects more widely known, and in inducing persons to kindly forward to me for further publication such of their original experiences as I had been ignorant of, and had therefore left unrecorded. I mention this, gentlemen, to show what kind of method I have been pursuing for my own instruction, and for the service of those who, as I have done, may be required to rough it,

whether they be soldiers, or whether they be civilians. I wish to show to you how I have made a special study of the matters which I profess to teach. Would that I were better informed upon them, to do you and the subject more justice. But as it is a new thing to endeavour to unite and systematise the numerous and widely-dispersed fragments of the information in question, I trust you will bear with me, and also make allowance for the confessedly incomplete method in which I may handle the subject, on the score of the really earnest way in which I have striven to improve my knowledge, and make it of effect.

Now, as to the means through which I propose to work. I desire to offer opportunities to all officers who choose to accept them, by which they may learn these things, and acquire skill to practise them. I wish to convey knowledge and manual dexterity, for neither without the other will ever be of much avail, and I propose to do it in this

way: I shall rapidly increase the collection of sketches now begun (and I beg you to bear in mind, with regard to its embryo condition, that it is only a short time since Lords Panmure and Hardinge have been pleased to accept my proffered services), and shall continue adding to them so long as the present season lasts; they will be arranged in my hut, with explanatory foot-notes and references, and form as complete a museum of the shifts and contrivances of camp life, as the time and my abilities and the nature of the case will allow me to make; I shall also have a small collection of books of reference on matters kindred to these things, and I invite officers to visit this museum and make what use of it they like, as copying the pictures, applying for information on them, and reading the books. It will, in the first instance, be open from half-past one to half-past six o'clock every day. It is my sincere endeavour to afford every facility and comfort to persons earnestly study-

ing these things. Next as regards teaching the *hand*. I am collecting a motley stock of very simple tools and raw material, planks, logs, twigs, canvas, cloths, and every single thing necessary for making with the hand those very things that you will see pictured in the museum ; I urge you to come and make use of them. In the palisadoed plot of ground, between the huts, you can sit and work just as roughly as you would in the Crimea, and you will from time to time have intelligent workmen to assist you in your difficulties, and explain the use of the tools you work with. I particularly hope that those who have any mechanical aptitude will give some of their leisure hours to these occupations, and avail themselves of the present opportunity. I beg you to come and make the most of it ; I am sure there is plenty of interesting and rational occupation to be found by doing so ; believe me, it will often stand you in good stead, whether in the field or in

houses. We ought all to know these simple matters of handicraft ; nearly all of us have wished that at some time or other an opportunity had been offered us of learning them. The expense will be a mere nothing ; I only require that injured tools be replaced, and record, but seldom expect to enforce, the principle that all raw materials used be paid for. I mean, as to this latter proviso, that three-fourths of the material used by each person will be of too little worth to be valued at all, but when more expensive things are wanted, as canvas, leather, &c. (if I have them, and if you come to me to furnish you with them), I shall expect them to be paid for before they are served out. I must beg you to recollect, that although these huts and some of the furniture in them has been provided by Government, yet that I possess no guarantee that any expenses I have, or shall have, incurred in setting this undertaking on foot, or in keeping it in action, will ever

be allowed me. And, therefore, although you will always find me ready to supply every accommodation that may prove needful in giving effect to this scheme that I have gratuitously undertaken, you must not be surprised if I do not cater for wants before they arise, by bringing down at once a complete establishment of artificers, with expensive supplies of tools. Indeed, the more that you make serviceable makeshifts out of worthless raw materials and with common tools, the more thoroughly shall I feel that you sympathise with the spirit in which I myself undertake this matter.

And, gentlemen, let me remark how advantageous it must prove, if such of you as are destined to active service, and who having happened to have learnt any particular art, as drawing, turning, carpentering, and so forth, will also practise here, at Aldershot, how to make for yourselves all the tools and appliances required for that art. In this way,

when you are far from shops and without the materials you have been accustomed to use, you will know how to procure them for yourselves, and how to furnish yourselves with those very articles for the want of which the knowledge you had at much pains acquired, would lead to no result. I wish to induce you to supply yourselves with that wanting link which is able to connect the arts and handicrafts, learnt in civilised life, with those available in a temporary and ill-provided encampment. Thus, in drawing, I have little doubt that I am now addressing many gentlemen, highly accomplished in that art, who yet have no knowledge how to *size* common paper, and make it *fit to take the sharp strokes of a pen*; whose paper being greasy and useless for want of *ox-gall*, they do not know how to procure it; whose stray leaves of paper they have never practised making into a handy and efficient *block*. Nay, who cannot make a moderately good *paint-*

brush for themselves, nor a good substitute for writing or *Indian Ink*, nor a good writing *pen* out of a plucked quill feather. Yet all these things, and many more besides, referring to the same art, can be made at all times, with a simplicity and a readiness astonishing to those who are used to think that manufactories are necessary for producing every manufacture they see. There is no habitable country so wild and so inhospitable as not frequently to afford ample materials for making each thing that I have mentioned. But unless we learn to draw our supplies direct from nature, and not through the medium of manufactories, we may sit with our hands folded in unwilling idleness, and complaining of want when we are really in the midst of abundance, and surrounded by opportunities of using them. So with the Carpenter: he may be an excellent workman in London, but useless in the field; for he may have nothing but growing trees at hand, and yet not know how to season green wood to a sufficient degree for working, in a

single night ; he may not be enough of a blacksmith to repair or make his awls and other small tools, when he has nowhere to buy them ; he may become disheartened because he has no nails, and is unpractised in using substitutes for them ; he may be without proper tools at all, and be unable to teach others how to fell and rudely to fashion trees for his use by means of fire, directing the encroachments of the flame by judicious scrapings and quenchings ; it is possible he may not be able to soften the temper of his axe when he finds it shiver against the hard wood which alone he can procure to work with, or do other of the many matters which are quite necessary that he should be an adept in, before he is fitted to take the field, but which I should only weary you now by recounting more at length. Again as to the Turner, the last of those I mentioned : he is helpless without a lathe ; and that simple form of one which may be joinered up in two hours at the foot of any tree, which was, I believe, generally used

up to the last half-century, which is still used everywhere in Italy, has been quite forgotten by us, though by forgetting it we are made dependent on manufactories, and lose the power of making a lathe for ourselves, quite good enough to give useful results wherever and whenever we please.

Now, gentlemen, I say that those among you who have already been at the pains to acquire any art, should take the next easy step further, and acquaint themselves with the rough and ready way that they will have here an opportunity of practising, of making their tools and other appliances. Whatever a soldier has learnt, let him also learn what little more is necessary to make his knowledge available whenever he may be called upon to leave the regions of shops and houses, and to take up his quarters in the open field. When any of you require to learn what neither I nor the workmen then with me can show you how to perform, do not be disheartened, but make experiments, have full

confidence in yourselves, determined not to be beaten by difficulties, consult what books may be at hand, and the chances of success will be strong in your favour. I hope that these huts may be looked upon more as a laboratory where learners may teach themselves, which is the best kind of learning,—rather than as a place where they are formally taught. I wish to make it a kind of head-quarters of the knowledge of those shifts, contrivances, and handicrafts that are available in camp life ; and I call upon you to help me with your assistance. Write to your friends from the Crimea, or from the bush, who take an interest in these things, get hints of original experiences from them, and communicate them to me ; they will not lie idle, but will at once be turned to account in increasing a store already large, and will remain recorded in pictures or in models for the good of ourselves and all who follow us. In so far as I may feel called upon to instruct, otherwise than in showing readiness to explain and converse about whatever is shown in

this little museum and laboratory, you must allow me to feel my way gradually, and not to offer you an exact programme at the outset; much will depend on the number of officers whom I may succeed in attracting to a somewhat earnest and steady pursuit of the Art of camp life. Possibly occasional lectures may be convenient, especially if combined with field excursions. Those who wish to work can keep any bags or boxes in my second hut. The tools that I shall furnish them with will be of the simplest description; but if any of you know how to use others, and choose to provide yourselves with them, you can bring them here, and keep them locked up in safety. I shall endeavour to form classes, and to have a clever workman here for the half-day to teach each class. I fear there is hardly an officer in camp who, if all his cooking utensils were broken, or had been dropped in a rapid march, would know how to teach his men to make others of clay, and glaze them with salt. But why should you not learn both this and many

other equally elementary matters of handicraft? For a man who has once made a thing, however roughly, is like a bather who has once swum a few strokes; he never utterly forgets how to do it, and always retains his self-confidence. When matters fall into shape, I should be very glad to accompany large parties to a distance on the heath, and there in the free moorland to go through much of what had been practised by the side of the huts. I think if I can find a sufficient number of officers to enter thoroughly into the spirit of the thing, I have little doubt but that I shall be able to attract many highly-experienced travellers and campaigners, and we might carry out most pleasant and instructive expeditions, each learning from the special knowledge of the others. And I shall endeavour, as far as possible, to give a thoroughly practical and earnest character to such meetings, practising those matters which are of most important and common use, and avoiding scrupulously whatever is simply fanciful.

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