# In Memorial of All Natural Disasters' Victims:

# A compendium of Copp articles:

# The Triangle Of Life

Protecting you from duck and cover.

"It is not the earthquake which kills you. Getting under a squashed desk or table kills you. You can survive by fleeing the building if you can get out the ground floor or getting into a survivable void, next to a large, bulky object."

doug copp



Doug Copp http://www.amerrescue.org amerrescue@aol.com

Life as an unpaid volunteer:

"I would do it all over again. It was the right thing to do. If God wants me to die....

Then I'll die. Period."

According to the OSHA-USA (Occupational Safety & Health Administration-U.S. Department of Labor) published statistics, 2.2 rescuers die per victim in confined space rescues. Doug Copp has beaten that estimation time after time. He has worked more than 79 disaster events and tunneled inside of more than 894 collapsed buildings. Through earthquakes, tornadoes, landslides, hurricanes and many other emergency responses, Copp's intense understanding of disaster mitigation and complex demolition has kept him alive. This knowledge and skill have taken him allover the world to teach methods to others.

In this book, you will learn these survival methods.

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For 19 years Copp and his wife lived under the poverty line while working 80 to 100 hours per week for ARTI. Now he is dieing and sick every day for 5 years. "Do I have regrets? No, I am grateful beyond words for being so lucky to have such a wonderfully good life."

#### **Section One**

## THE AMERICAN RESCUE TEAM, INTERNATIONAL

## The World's Most Experienced Rescue Team

## And Doug Copp

#### IN THE BEGINNING...

In September, 1985, Douglas Copp, among other things, a demolition expert who specialized in making buildings fall in a precise manner was watching television in New York City when a news report came on about an earthquake in Mexico City. As he watched, horror stricken, the newsreel showed collapsed buildings with live people inside being approached by bulldozers. Doug screamed, "My God, they're killing those people", and in his typical high energy fashion went straight to the Mexican Consulate, presented his credentials, obtained diplomatic papers and was off to Mexico City to explain to the "rescuers" how buildings collapse, leaving triangular voids where people can survive, and how bulldozers collapse those voids, killing the survivors.

Out of that trip where many lives were saved, what is now known as The American Rescue Team, International was born. After his experience in Mexico City, Doug was hooked on saving lives, so he formed a 501(c)3 non-profit corporation called Earthquake Preparedness and Rescue of California and began a life of pulling people from rubble while preaching the gospel of the "Triangles of Life".

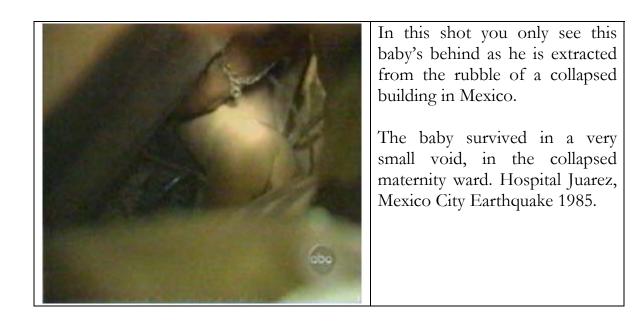
From that beginning, Doug and a small group of volunteers have grown to more than 40,000 members representing more than forty countries from around the world. In those early days, Doug's group was the only rescue organization from the USA who was in attendance at world disasters and became known simply as the American Rescue Team.ARTI has been represented at virtually every disaster in the free world for the last 16 years, has crawled through hundreds of collapsed buildings, pulled hundreds of survivors from the rubble, and gained more knowledge with every experience.

#### RESCUES...

Rescues are the most dramatic part of what ARTI does. They get all the media attention and are a very gratifying portion of our work. But, saving lives is really what ARTI is about, and we save many more lives with the more mundane portions of our work.



Eleven-year-old Tugba Altun trapped beneath nine stories of collapsed building in Turkey. She survived for four days in the Triangle of Life created next to her bed.



Here he is safely in the hands of the medicos.

Doug crawled over many squashed and ripped apart babies to save this one.



ARTI has accomplished many rescues fully as dramatic as those shown here. These just happen to be two that were caught on video tape. The rescue of Tugba has been shown on TV all over the world many times.

#### **OTHER MISSIONS...**

#### Training and education...

ARTI has long been involved in training seminars throughout the world, teaching rescue techniques and preaching the gospel of the Triangle of Life<sup>1</sup>.



ARTI puts on Triangle of Life seminars all over the world on a continuous basis. This particular class was conducted in Trujillo, Peru.

<sup>&</sup>lt;sup>1</sup> In situations such as earthquakes, where buildings collapse, Duck and Cover means certain death. Even the heaviest of objects, such as desks collapse under the weight of a fallen building. The life saving voids are created not UNDER bulky objects, but BESIDE them, where one portion of a slab of concrete rests on top of what is left of the object and the rest of it on the floor, creating a Triangle of Life.

ARTI signed a cooperative agreement with the Republic of China. This is one of many cooperative agreements that ARTI has signed with other national teams around the world.





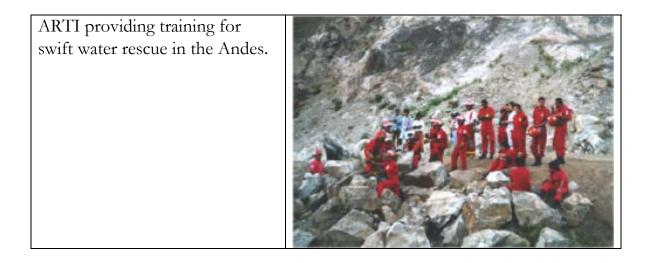
This one in Tajikistan where ARTI recreated rescue capacity for the entire nation after the break up of the USSR.

The pre school children will survive in the triangle of life or survivable void next to their beds.

Doug trained the schools, University Students and Engineers at the technical School.



Copp shown presenting the ARTI Award for Excellence in International Disaster Management to Sanjay Gupta, chief of rescue operations in India. Our collaboration saved as many as 200,000 lives from collateral death.





Doug gave a lecture on the management of a major disaster when a city is destroyed to the Mexican Admiralty.

Doug has worked with the Military from many countries, many times.

#### Gathering and distributing donated goods...

Equipment taken for granted in the U.S., such as helmets for firefighters and rescue personnel are considered luxuries in third world countries. ARTI has gathered millions of dollars worth of rescue equipment from industrialized nations for distribution to organizations in the poorer nations of the world and presently has some \$600,000 worth of donated equipment for delivery to Peru later this month (pre 911).



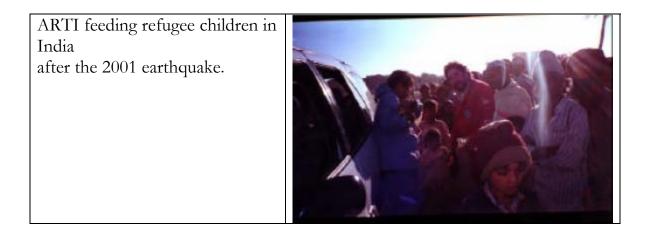
Doug is the 'Padrino' (Patron on the brass wall plaque) of this Trujillo Fire Dept. ARTI collected these helmets from the London Fire Brigade.

#### Goodwill Ambassadors...

ARTI probably does as much to spread goodwill for the United States around the world as all the foreign aid programs combined.



Doug pictured with the Russian National Rescue team during the Taiwan Earthquake.



ARTI has formed alliances with many other rescue teams around the world, which result in close communication and goodwill among many diverse cultures. ARTI also has more than 40,000 associated team members from 43 nations, some of whom are high government officials.



Doug and the Brigadier General of the Peruvian Fire Dept sign a formal cooperation Agreement as the respective national teams of the USA and Peru.

Some of ARTI's rescues have nothing to do with saving lives. At the request of Maria Reiche, ARTI played a key role in the preservation of the Nazca Lines of Peru, a U.N. designated World Heritage Site, during the 1998 El Niño floods.

#### Disaster Mitigation...

Often it is not the initial disaster and the falling buildings that cost the most lives. It is the diseases that follow. Unfortunately, after major disasters such as earthquakes, it is not always possible to timely recover all victims for burial, and as a result, rats proliferate.

This proliferation all to often results in an outbreak of the plague. In the Gujarat area of India, for instance, the site of the February, 2001 earthquake, an outbreak of the plague in 1994 cost 40,000 lives. After the 2001 quake ARTI successfully worked with Sanjay Gupta, Chief of Government operations, and his assistant, Raichoudray, to prevent another outbreak. As a result, not a single life was lost to the plague. Nonevents, such as the non-occurrence of a plague save more lives than all the rescues we have performed.

#### TECHNOLOGY ...

ARTI is far and away the most technologically advanced rescue and disaster management/mitigation organization in the world. Doug Copp, ARTI's rescue chief has more than 30 inventions, many of them rescue related.

The Copp live victim locator was an electronic device using stereoscopic, electronic seismic transducers to locate live victims in collapsed buildings. We had such a device eight years before the rest of the world. Now most fire departments and rescue squads in the U. S. use a similar device. ARTI no longer uses the device and considers it obsolete.

We have replaced it with the Copp Multi-Probe live and dead victim locator and its subcomponent, the Copp Casualty Locator (patent pending). This device "sees", "hears" and "smells" to locate both live and dead victims. We have used it extensively: In Kosovo to locate mass grave sites, at the Taiwan Earthquake to find victims trapped inside of collapsed buildings, at the Turkish earthquake, at the Swiss Air crash off Nova Scotia to find victims at the bottom of the ocean, at earthquakes at Gujarat, India and El Salvador to locate victims and at many other major disasters. We have also used this equipment to locate drowning victims in both lakes and rivers in minutes after all other agencies have given up the search.



ARTI used the Copp Casualty Locater to locate the victims of the Swissair crash ten miles off the coast of Nova Scotia in one hour. You can watch a video of the RCMP confirming this recovery at www.amerrescue.org.



Copp demonstrating the Copp Casualty Locator during the International Police Divers Symposium in Canada. He is shown here locating a "victim" represented by the body of a pig in 100 feet of water, in less than three minutes. Three hundred police departments from all over the world were represented. 1999.

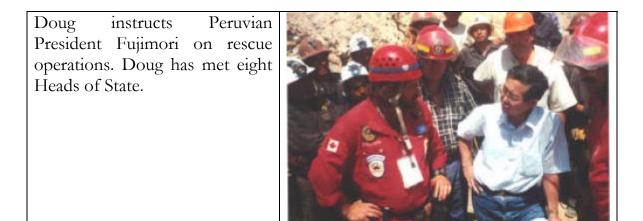
Copp locating a mass grave site in Kosovo. He is shown here by the grave site, which was heavily mined by the Serbs who murdered the victims.



ARTI's Mine Collapse Victim Locator enables the technician to hear through as much as600 feet of solid rock and was proven exceptionally useful at the La Mina Juanillo, Peru mine collapse.



The minister of Mines of Peru listens to the Copp Mine Collapse Victim Locator at a collapsed Mine in the Peruvian Andes.



At major disasters, everything becomes contaminated. The concrete dust carries bacteria from decomposing bodies at earthquakes and landslides. During floods, a major problem exists with fungus and viruses. As a result, ARTI members were frequently taken ill during rescues. The solution was the Emergency 0203 Detox Unit, which has reduced illnesses in rescuers by 50%. Although it was originally designed for rescuers, ARTI has now incorporated its use into its disaster mitigation plan to treat refugees



ARTI treated several hundred children for skin disease with the 0203 Detox Unit during the floods in Venezuela in which 50,000 people died. The children in the white suits are being treated.

#### EXPERIENCE...

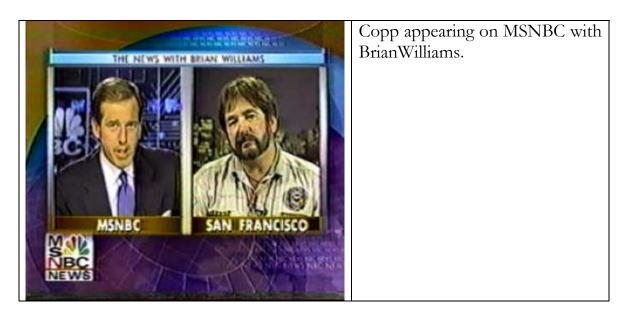
Often experience plays a more important role than technology. For instance, when ARTI was asked to try to locate a young American missing in a remote mountain wilderness in Turkey after the U.S. government, the Turkish Army and various mountain climbing clubs had searched in vain for five months, Copp surveyed the scene, and went through the following thought process: We know where he isn't (some places had been searched 50 times). We can assume he is dead (after being missing for five months). What killed him? In the distance, Copp saw evidence of a landslide and said "Let's search there". Searchers recovered enough bones from the landslide to determine that it was the remains of the missing American.

Experience is also a prime ingredient in rescuing victims in collapsed buildings. A city like New York might see one or two collapsed buildings a decade. In Los Angeles, there is a moderate earthquake that collapses buildings approximately once a generation. Most fire department rescue personnel arriving at a collapsed building in this country are at their first such experience. ARTI has worked at more than 100 disasters involving many thousands of collapsed structures and stands ready in the event of a major disaster in the U.S.

#### THE WORLD'S MEDIA DISCOVERS ARTI...

ARTI is not only the most experienced rescue and disaster mitigation organization in the world, it is also the most covered by the world's media. Articles on the team and/or its rescue chief, Doug Copp, have appeared in

more than 30,000 newspapers around the world. There is regular coverage, during disasters, on all the major radio and television networks worldwide. Doug has been interviewed eight times over the years by BBC World Services Radio which broadcasts to approximately 130,000,000 people. Television Network specials featuring ARTI and/or Copp, such as the ABC Prime Time Special, "The World's Deadliest Earthquakes" and "Earth's Fury, Earthquakes", the highest rated show in Discovery Channel History have both been distributed to networks in more than 100 countries for rebroadcast.

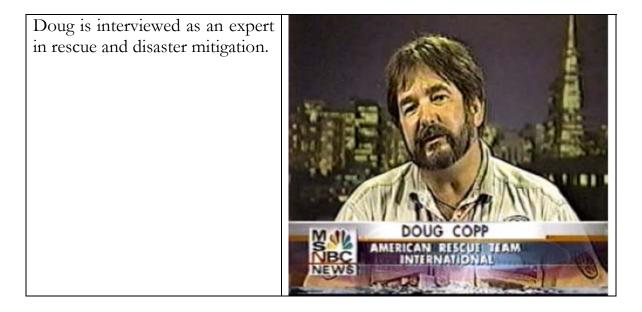


One of Copps five appearances on the Learning Channel's broadcast of Earth's Fury, Earthquakes. This was also the Learning Channels highest rated program ever.





Copp was interviewed by NBC, CBS and Fox prior to his departure for India in February of this year.

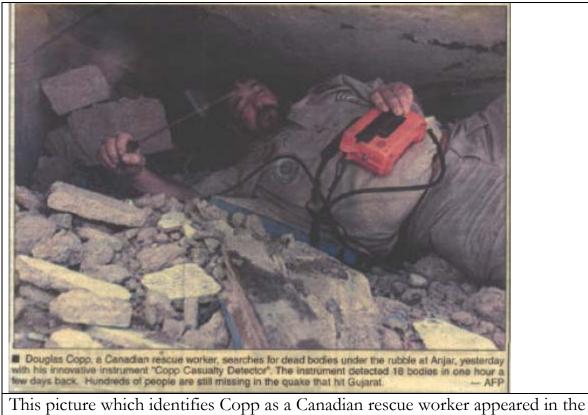




Copp appearing on the TV show, Have a Heart prior to going to Turkey to search for a missing American.

Doug stares straight ahead while both conducting an interview for Focus Network in Europe and driving down a mined road in Kosovo.





This picture which identifies Copp as a Canadian rescue worker appeared in the Bombay Times during the 2001 earthquake in India.

#### A GRATEFUL WORLD...

The following are but a few of the hundreds of letters and commendations ARTI has

Received from a world grateful for its efforts.



Doug, taking his leave from the palace of Pragmulji 111, Maharao of Kutch in India after the February, 2001 quake. See following letter from the Maharajah.



MAHARAO SHRI PRAGMULJI SAWAI BAHADUR OF KUTCH RANJIT VILLA PALACE BHUJ – 370001 KUTCH

**FEBRUARY 25, 2001** 

Mr. Douglas Copp Rescue Chief, Disaster Manager, American Rescue Team International P.O. Box 489, Alameda, California 94501 U.S.A.

Dear Douglas,

Natural disasters bring with them not only calamities but also the help of angels to cope with them. We in Kutch were very fortunate in having you personally along with your large and dedicated team to speedily assist with rescue operations.

Conditions in Kutch may not have been ideal but we do appreciate the valuable efforts of your team members to augment our rescue operations. Your immense expertise and experience were invaluable – for which we have much to be grateful to Almighty God and kind fellow Americans as also to your goodself along with all other team members.

I recollect my grand father having carried out a small rescue operation during WW II, when he succeeded in saving lives of crewmembers of a crashed American B-29 bomber, and now some 55 years later USA has returned our goodwill gesture many many fold over, for which I on behalf of the beleaguered people of Kutch express our sincere appreciation as also deep gratitude.

God in his wisdom has taken away a large number of our friends and fellow Kutchies, but has also comforted us by bestowing your warm and soothing acquaintance, on which, time permitting, a bridge of solid and durable association could be engineered.

There are other tasks ahead crying for attention and time is short, hence per force I must wind this up. Once again with deep thanks, for all that you have very selflessly done,

Cordially GMULJ O OF KUTCH

EMBASSY OF THE UNITED STATES OF AMERICA Reforma 305 México City

January 25, 1986

\*

Doug Copp 2336 Market St., No. 10 San Franciso, Ca. 94114

Dear Mr. Copp,

I would like to take this opportunity to thank you for your remarkable volunteer contributions to the Embassy's earthquake relief effort.

The operation was successful precisely because you and everyone involved worked together as a team. Such an immediate and effective response by the Embassy community made a difference where it counted most -- in saving lives and relieving pain of those directly affected. We can all be proud of this achievement.

Thank you again for your help.

John Gavin

The Copp Resolution states: International Rescue Teams shall not be bindered or prevented from saving lives and that all rescue shall be depoliticized to reduce buman suffering.

The Rescue Association of China The American Rescue Team E. P. R.C.

Agree:

• To become affiliated rescue organizations with full membership privileges and to work logelber as a joint leam at international major disasters. • To cooperate fully as brother organizations dedicated to saving lives.

•To exchange technical training and expertise.

卡普沃誠陳邦:

國際教難測就在授救生命時將不受任何阻撓反妨缺、 且非政治化减低人們的差難,

中華民國複效观隊

美國搜救隊 成為联制的搜救强战,擁有所有的權利在世界各重大 受難地展成為同一隊並且工作在一起為了種救生命結盟 為兄弟隊畫力相至会作支流技祥副練及專業知識。

The representatives sign and allest to this agreement.

moles -1 121 四 EG: Grr ino (leader) The American Reacue Town (ling on) Historian

When I think back of all the crushed, squashed bodies; especially little children ....and their pools of blood .... I have crawled past and through, in the rubble, emerging with their blood on my body and clothes..... all as a result of this utterly bizarre propaganda campaign getting out of control.... I am left speechless. This is where the policy of 'duck and cover' which has a Universal 98% death rate originated. To understand that many millions of people have died because of this ludicrous nonsense is bewildering.

#### **Section Two**

### How to survive building collapse

American Survival Magazine, July 2000

The 1<sup>st</sup> international forum: China city's disaster prevention and mitigation, May 2005

#### Pre introduction

I want to quote an MSN internet conversation I had with our ARTI webmaster, John Mc Intosh, about this speech. His internet name is cybersurfer. "Cybersurfer says: Duck and cover is valid for snow ball fights, among children, not for building collapse. Doug cays: That is good. I might use that. Cybersurfer says: Hey use this one, too, duck and cover is useful for locating the children when its all over.. Just look under the desks. Cybersurfer says: That wet spot under the desk is "Little Bobbie". Doug says: No kidding. Doug says: I remember"

I remembered crawling up and down the aisles of a collapsed school and seeing every child squashed. Only a little hand or foot escaped. This was in Mexico City in 1985. I learned that 'duck and cover' was death and people survive in spaces next to desks. I discovered the 'triangle of life'or 'it discovered me'.

#### Introduction:

The purpose of this section is to provide the information; that will take survivability, in collapsed buildings, from the current 98% dead to 90% living. You can help me save many thousands of lives in China. Maybe even your own or members of your family. Currently, 98% of people trapped inside of collapsed buildings are squashed. My experience, of surviving, crawling 'on my hands and knees' throughout collapsed buildings has taught me how to enable 90% of trapped victims, to avoid being squashed.

My name is Doug Copp. I am Canadian. I am the Rescue Chief and Disaster Manager of the American Rescue Team International (ARTI), the world's most experienced rescue team. The information in this article will save lives in an earthquake. My physical health prevents me from doing rescue again. The level of lead, mercury, arsenic, cadmium, thallium, antimony and many other intellectually debilitating poisons prevented me from 'knowing my own name', most of the time, until less than 1 year ago. My cognitive abilities have resumed to the point where I can give my first lecture; since, being injured.

Before becoming permanently disabled at the World Trade Center due to poisoning, I had crawled inside of 894 collapsed buildings, worked with rescue teams from 60 countries, founded rescue teams in several countries, and I am a member of many of many rescue teams from many countries. I was the United Nations expert in Disaster Mitigation (UNX051 -UNIENET) for two years. I have worked at every major disaster in the world since 1985, except for simultaneous disasters.

I am going to teach you what I learned as I crawled through 894 collapsed buildings so that you and your families will not be killed.

My present abilities are reduced because of injury. I am disabled from being poisoned, from the toxic clouds, Below Ground Zero, at the World Trade Center, in New York City; I don't regret any sacrifice I made. I want to point out that I was not crushed, like expected for rescuers. My knowledge of structures and their post-collapse-stability- interdependency was not diminished. Breathing poisons have harmed me; not lack of structural knowledge. Concerning disasters, I am an experienced man.

# The fact that I am alive is a testament to the importance of the information which I have for you.

Before, hearing my lecture you will see a video. If you watch the Learning Channel, the Discovery Channel, the History Channel, the Travel Channel then you have most likely seen one of the Documentaries featuring me saving lives. My efforts saving a little girl; buried underneath hundreds of tons of rubble was a '15 minute TV segment'. This 'rescue' has been rebroadcast, hundreds of times. Often, viewers 'cry for joy; when the surrounding crowd cheers; as I place the stretcher, of this brave little girl, safely, in an ambulance. It is touching and special when she kissed me, on the cheek, for saving her life. Extricating her from 'ever present death' was a very special part, of my life. Viewing, different segments of that program, sensitive people 'cry from sadness', watching a father collapse, sobbing, in my arms. He had just discovered that his entire family had been crushed. During the film, you will see the same happy girl turned sad. She had been told that her brother was dead. You are not told that the little girl's brother had been crushed. He was squashed under kitchen table. I expect that 'you and your staff' would do the same. 'Duck and cover', is the worst thing you can do. This is why a survivor becomes a media celebrity. 'Duck and cover' is death and it is what children are taught to do in China, today.

During part of the video, you will see a film, from 1996, which proved my survival methodology to be correct. The Turkish Federal Government, City of Istanbul, University of Istanbul, Case Productions and ARTI cooperated to film this practical, scientific test. We collapsed a school and a home with 20 mannequins inside. Ten mannequins did "duck and cover," and 10 mannequins used in my "triangle of life" survival method. After the simulated earthquake collapse we crawled through the rubble and entered the building to film and document the results.

This film, in which I practiced my survival techniques under directly observable, scientific conditions, relevant to building collapse, proved a zero percent survival for those doing 'duck and cover' and 100 percent survivability for people using the "triangle of life." This film has been seen by millions of viewers on television in Turkey and the rest of Europe, and it was seen in the USA, Canada and Latin America on the TV program Real TV.



The safest place to be is in between beds, not under them. These beds have collapsed, but survival would have been possible between them. Note that the legs of the desk have collapsed and would have crushed anyone underneath. The dummy under this desk was chopped into three pieces. Had he been beside the desk (see void) he would have survived.





People survive next to large bulky objects, not underneath them. Doug shown in a void under a carrying beam in a collapsed building in Turkey. This building was collapsed as a scientific test of the Triangles of Life.



#### Problem Identified:

Duck and cover is a process; whereby, the population is told to 'hide' to protect themselves. In an earthquake, populations are told to hide under a desk or a table. The problem is that people are crushed to death when the building actually collapses and squashes the desks upon impact, 98% of victims die who do 'duck and cover'. Survival is so rare that survivors become media celebrities.

It is common for a disaster to kill thousands of individuals with none or only one 'victim' to be removed from the rubble still alive. This current status is a tragedy. Do NOT duck and cover.

Millions of lives are at stake so I want to be very plain, obvious and completely understood.

#### History:

'Duck and cover' was created as a political, and propaganda tool during the cold war. The problem is that to the United States it started as pert of an advertising campaign to calm the populations from of nuclear warfare. TV commercials were made to promote 'duck and cover' with 'cute' jingles sung to the theme of 'duck and cover'. This had very little basis in logic or reason; for example, one of the commercials had a 'cartoon', 'animated' family in a clearing

of the forest. The father, mother, son, daughter and pet dog were having a picnic. They had a blanket spread out on the ground with sandwiches and other picnic treats set upon it. They were happy. All of a sudden, a flash of brilliant light appeared in the distance. They all new it was an atomic explosion. They all continued to smile because they knew how to be safe. The boy led the way by lifting the blanket and sticking his head underneath. The father smiled approvingly and put his head underneath the blanket. The rest of the family did the same. The dog even stuck his head underneath, next to the boy. The scene changed to a view of them all under the blanket smiling at each other, in complete safety. The musical jingle continued to singing the words that 'duck and cover' would make you safe. The Dept of Civil Defense adopted 'duck and cover' in their publications concerning Urban heavy rescue (this manual was essentially a 'grown-up' adaptation of the boy scout manual on tying knots and using walking sticks; however, it told you to 'duck and cover'.). This was 1952.

In 1952 Television had not yet been tarnished. Everything that appeared on television was taken as absolute fact. The propaganda was set. Mission accomplished. Duck and Cover was not created as a means to save lives during building collapse. It is not being challenged by the "triangle of life" as a new and improved means of surviving building collapse. It was created by a marketing Dept as a propaganda tool to calm the population during a time of potential political unrest. Duck and cover was never meant to save lives. Duck and cover as a safety procedure is statistically a complete failure. This is why 98% of the population die during building collapse.

Things have changed 'Duck and cover' has been 'burned' into the minds of the populations from mandatory teaching and drills, in schools. The children are taught to drop to their knees and crawl under their desks. During structural failure this results in almost 100% death. A survivor becomes a Television celebrity because it so rare for a survivor to exist.

In the United States, the 'Duck and cover' propaganda is perpetuated by bureaucratic intransigence. Everyone knows how difficult it is to change something that is 'burned' into the minds of a population. Initially, the American bureaucracy had an objective of convincing a population for political purposes and then became its own 'victim' as the children themselves grew up to become the bureaucrats.

Galileo had this same problem in convincing people that earth was not center of the Universe. The bureaucracy, at the time, being the 'Catholic church' thought it would lose credibility if it admitted that God had not made man and man's home the center of the Universe.

Again Columbus had the same problem convincing 'the establishment' that the world was not flat and you would not sail-off or fall-off the edge of the world if you traveled to China. Columbus was right. When I came to China I did not fall of the edge of the world. It was the promise of wealth that convinced the King and Queen of Spain to finance Columbus' quest not truth or science.

#### The Response to perpetuate duck and cover:

'Duck and cover' is further perpetuated, in Capitalist countries because it has become commercial, in nature. The Major Commercial Interest (name and details available. On request), which perpetrates 'Duck and cover' has annual budget of 6 billion to 12 billion dollars. It is prohibited, by law, from 'doing any rescue'; however, it is adamant in perpetuating 'duck and cover'. Through propaganda and false advertising, it has convinced the American Public that they are experts in safety. This behemoth is afraid that a change in policy would make the American Public stop giving them money or it would negatively impact their revenue flow. Understand that I have been a member of the Mexican Version of this organization, for 15 years. Understand that I have worked with other countries versions of this organization, during many disasters. I am only referring to the American Version of this Organization. Not the version of this Organization in any other country. The American Version of this Organization is profit oriented they are not. In the United States this organization does harm NOT good.

The published response of the Major Commercial Interests is to attack me personally, and publish their response. The response is to concede, at this point, that the 'triangle of life' is appropriate for third world country but not for the United States (their financial base). They claim that it is not appropriate for the American Public to practice the 'triangle of life' because America does NOT have earthquakes and American buildings do NOT collapse. Obviously, this is utter nonsense and arrogance on an incredible scale; however it is their published and official position. The logical and reasonable mind reflects upon 2 quotes of philosophy: "If you can not destroy the message then destroy the messenger". And "The path of truth has 3 stages. First it is ridiculed. Secondly, it is violently opposed and thirdly it is accepted as self evident."

The question is how many people will lose their lives before this organization and those that ate like them will find the way to capitalize on the 'triangle of life'. They will adopt the 'triangle of life'; as being, self evident. I expect, at that point, in time, they will take credit for creating the 'triangle of life' and after time, deny they ever told the public about 'duck and cover'.

It has been as difficult to change policy from the 'brainwashed' belief in 'duck and cover' as it had been for Galileo and Columbus to teach people that the earth is not the center of the Universe and you will not fall off the end of the earth if you go to China.

Simply stated, when buildings collapse, the weight of the ceilings falling upon the objects or furniture inside crushes these objects. Leaving a space or void next to them. This space is what I call 'triangle of life'. The larger the object, the stronger the object, the less it will compact. The less the object compacts, the larger the void, the greater the probability that person who is using this void for safety will not be injured.

The next time you watch collapsed buildings, on television, count the "triangles" you see formed.

They are everywhere. It is the most common shape, you will see, in a collapsed building.

The concept of the triangle, of life is spreading more every day around the world. It is just a matter of time before duck and cover enters the same category as bleeding to cure disease, and the idea that you will fall off the end of the earth "if you sail to far.

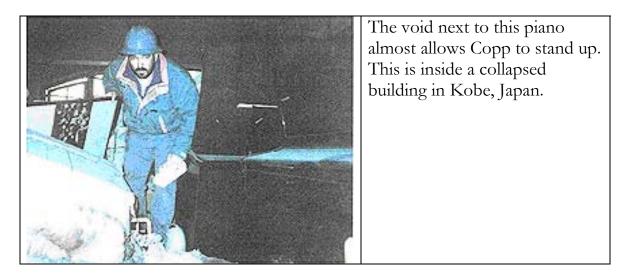
#### A logical understanding to survive building collapse:

I am going to explain something so simple to you that will wonder why you ever thought anything different.

People who die in building collapse die because they are crushed. When the building falls down they are crushed by the building's walls, ceilings and structural components. They are also, crushed when they hide under objects that are crushed.

People who survive building collapse survive because they were not crushed. They found themselves in a void or open space which was bigger than their body so they avoided getting crushed. People who get under things that are crushed are also crushed. The human body is flesh and bone when great forces are placed upon it is squashed.

In collapsed buildings voids or spaces which are large enough to contain an intact human body are found next to big, bulky and strong objects. Objects like beds, cars, sofa, refrigerators, and washing machines have voids next to them. Objects like desks and tables are not made to support heavy buildings. They are made to support very little weight before the legs break. These flimsy and weak objects are crushed and people who hide under them are crushed.



The same spaces that the rescuer crawls through are the same spaces that are big enough for people to survive in. When rescuers crawl through collapsed buildings searching for survivors they crawl through the connecting spaces which are large enough for their body to get through. They look for spaces which are found next to large bulky objects or spaces that are found next to a series of objects with large surface areas to absorb the weight. Beds have a large surface area so the weight per square cm is less. Beds, statistically, have voids around them.

Again, people survive in voids next to large, bulky objects. People die who get under crushed objects.

If you get under something that is crushed then you will be crushed. If you get next to an object that was strong enough to leave a void next to it bigger than your body then you will survive. In the office of the American Ambassador to Peru there was a large, strong steel safe. It had a low center of gravity (It had a broad base and was short in height). Its shape meant that it would not fall over very easily, in an earthquake. It would be stable. I told the ambassador: "If an earthquake should occur and completely destroy this building, killing every single person inside... I will survive because I will be in the space next to the safe"

#### Continuing with more details:

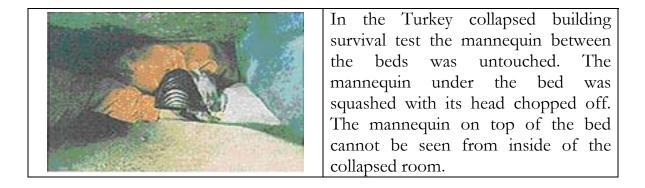
Rows of desks absorb a lot of pressure when buildings collapse. The legs snap or break easily; however, they leave a space next to them high enough from the floor a child to remain unhurt.

The 'teacher' under this desk was chopped into three pieces when the desk legs snapped in a test building collapse in Turkey in 1996. The 'teacher' was only a mannequin, so the rescue team members could afford to smile.



When ceilings fall down the entire ceiling falls down at the same time. Light fixtures which are bolted to the ceiling stay attached to the ceiling while the entire ceiling falls down. People are seldom if ever hurt by these objects.

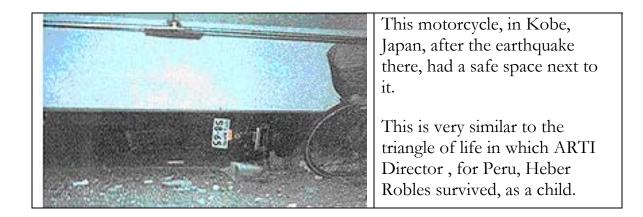
If you are in bed during the night and an earthquake occurs, simply roll off the bed. A safe void will exist around the bed. Hotels can achieve a much greater survival rate in earthquakes, simply by posting a sign on the back of the door of every room, telling occupants to lay down on the floor, next to the bottom of the bed during an earthquake.



	Copp taught these children in this Tajikistan primary school to get next to their beds and NOT under their desks. Copp had a European Union contract to recreate a rescue capability in this country after the collapse of the USSR.
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Cats, dogs and babies all naturally often curl up in the fetal position. You should too in an earthquake. It is a natural safety/survival instinct. You can survive in a smaller void.

If an earthquake happens while you are watching television and you cannot easily escape by getting out the door or window, then lie down and curl up in the fetal position next to a sofa, large chair. Any large bulky object that will support the weight of the floors above you and still leave a space next to it large enough for you to survive. Get next to an object, next to a sofa, next to a large bulky object that will compress slightly but leave a void next to it.

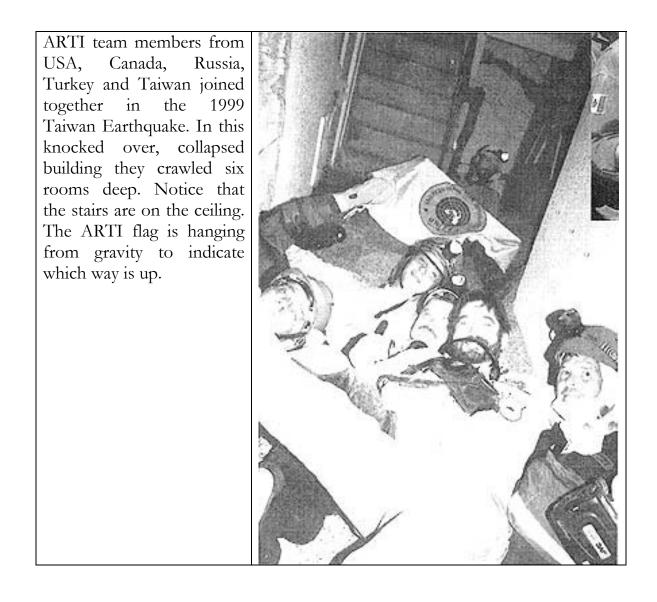


Never go to the stairs. The stairs have a different 'frequency' (they swing separately from the main part of the building). The stairs and remainder of the building continuously bump into each other until structural failure of the stairs takes place. The people who get on stairs before they fail are chopped up by the stair treads. They are horribly mutilated. Even if the building doesn't collapse. stay way from the stairs. The stairs are of the building to be damaged. Even if the stairs are not collapsed by the earthquake, they may collapse later when overloaded by screaming, fleeing people. They should always be checked for safety, even when the rest of the building is not damaged.

If the building hasn't collapsed, in an earthquake, the survivors typically panic and flee to the stairs. The weight of so many panicked, fleeing people are a real threat to the damaged stairs collapsing.



Typically in an earthquake, such as this one in Northridge, California, in 1993, the stairs collapse before the rest of the building.



Never be on the bottom floor. My team members in Turkey, moved to the top floor of our hotel when I told them the following story: During the earthquake in Kallammattaa, Greece in 1986, I had been working without sleep for the first four days. I needed to have some sleep. The fire chief of Athens, who was in charge of the Greek rescue team, took me to the hotel where the high government officials were staying. He introduced me to the manager and told him that all of my expenses would be paid by the Federal Government of Greece.

My first words were: "I want a room on the top floor." He said: "No, that is not possible." I repeated several times that I wanted a room on the top floor. He repeated several times that it was not possible. Finally, he told me that his family lived on the top floor, that it was his private home. I replied: "OK. I want a room on the next floor down." He said: "OK."

A man got up from a table and approached me. He introduced himself as the chief seismologist for Greece and said: "Why do you want a room on the top floor? We all have rooms on the bottom floor."

I informed him that the top floors have less weight above them, are usually not collapsed in earthquakes, and that the bottom floors have the combined weight of the entire building pressing upon you and the objects inside." You will be crushed to death and I will be untouched."

At first I did not realize how seriously they all took me. The family of the owner slept on the beach, in a tent. All the scientists and even the federal government's minister of civil defense slept in their cars. I was the only person sleeping or even going inside of this heavily damaged 5-story hotel. I slept like a baby. The higher you are in a building the less weight will be crushing down upon you and the safer you will be.

Never stay on the bottom floor of a building. Everyone, on this bottom floor was crushed.

Typically, the higher you are in the building the safer you will be, doug adds.



Columns always provide a safe void next to them for tunnelers who crawl inside of collapsed buildings to save trapped victims and recover bodies; however, when the building actually comes down or collapses, you are gambling big time!

Why? The columns will have a large void around then but if they fall directly on top of you, in your quadrant, you will be crushed to the size of a penny placed on top of a railroad track after a train has run over it. After seeing victims under columns and carrying beams, I was finally convinced that the human body is 70 percent water.

Copp in the collapsed Kobe, train station. The columns that had fallen over allowed a space 2 feet high to exist for 200 feet.



During my last mission to Peru, in December 1999, we delivered \$80,000 in donated rescue equipment to the National Fire Department of Peru. I trained the Fire Department of Trujillo (population 750,000) in how to survive, take care of their families, and to rescue others in earthquakes.

The chief of rescue in the Trujillo Fire Department is a professor at Trujillo University. He accompanied me everywhere. He had many reasons. I trained his elite team and we went to the university to train the scientists and students, went to several city halls for the mayors and city councils to change school survival policy, and most importantly for me, to allow him to give testimony. I explained about surviving in voids, next to objects.

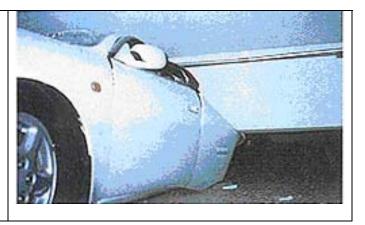
He gave personal testimony: "My name is Heber Robles. I am Chief of Rescue in Trujillo. When I was 11 years old, I was trapped inside of a collapsed building. My entrapment occurred during the earthquake of 1972 that killed 70,000 people. I survived in the 'triangle of life' that existed next to my brother's motorcycle. My friends who got under the bed and under desks were crushed to death [he gives more details, names, addresses etc.]...I am the living example of the 'triangle of life.' My dead friends are the example of 'duck and cover.'"

What more can I say? They got the point. He is the rescue chief for their city. In San Francisco, I asked a representative of the Governor's Office of Emergency Services, in front of witnesses: "Why don't you tell people not to get under doorways?" He replied, "We don't tell people to get under doorways, anymore" It went back and forth and I asked him the same question and he replied with the same answer. Those of you in California, please notice that The State of California, Governor's Office of Emergency Services, doesn't tell people to get under doorways during earthquakes anymore.

Why? Everybody who gets under a doorway when buildings collapse is killed. How? If you stand under a doorway and the doorjamb falls forward or backward you will be crushed by the ceiling above. If the doorjamb falls sideways you will be cut in half by the doorway. In either case, you will be killed! But they won't tell you not to do it. I guess they think people will eventually forget that they told people to do it in the first place. If they have stopped publishing instructional pictures of people under doorways they should tell people why and save some lives.

Parking garages are like highway overpasses. I still have a copy of the TV program, AM San Francisco, where I publicly stated that a minor earthquake, such as the Loma Prieta earthquake in San Francisco in 1989, would collapse the Nimitz Freeway, a double-deck freeway in nearby Oakland. I said it would and it did. Only I said it two years before it happened. People inside of their vehicles are crushed when the road above falls in an earthquake and crushes their vehicles; which is exactly what happened with the slabs between the decks of the Nimitz Freeway. Everyone killed would have survived if they had been able to get out of their cars and sit or lie next to them. All the crushed cars had voids 3 feet high next to them, except for the cars that had columns fall directly across them. We already discussed what happens to you or a car when a column falls on you. You are squashed! These victims didn't get next to their vehicles. They stayed in the "line of force" and were all crushed.

Notice the safe space next to the car. People who get under objects, like desks or cars, are always crushed. The victims of the San Francisco earthquake all stayed inside of their vehicles. They were all killed. They could have easily survived by getting out and sitting or lying next to their vehicles.



Get Near the Outer Walls Of Buildings Or Outside Of Them If Possible - It is much better to be near the outside of the building rather than the interior. The farther inside you are from the outside perimeter of the building the greater the probability that your escape route will be blocked; or the other way of looking at it is that the route for a rescuer to reach you will be blocked from the side. This means that the entire structure above you must be removed by heavy equipment before you can be rescued.

If you are next to the outside wall of a building while still inside of it, you can expect the glass not to be a problem. As the building collapses and the consequential volume is decreased the air pressure inside actually increases. It is like bursting a paper bag filled with air. The glass is blown away from the structure, not inward.

Wooden buildings are the safest type of construction to be in during an earthquake. The reason is simple: the wood is flexible and moves with the force of the earthquake. If the wooden building does collapse, large survival voids are created. Also, the wooden building has less concentrated, crushing weight.

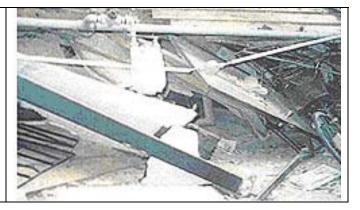
Wooden structures perform best in earthquakes, says the author. Their flexibility and lightweight leave many voids or survival "triangles of life."



Brick buildings will break into individual bricks. Bricks will cause many injuries but less squashed bodies than concrete slabs.

The best place to be in an earthquake is outside. It is rare for the ground to open up and swallow you, though I was once at a place where the ground opened up and swallowed a whole street of homes, people, cats, dogs and cars, and then closed shut again without a trace. This had a great humbling effect upon me. Nature impressed me.

I discovered, while crawling inside of collapsed newspaper offices and other offices with a lot of paper, that paper does not compact. Large voids are found surrounding stacks of paper. I instituted a program in many embassies, offices and schools around the world to increase survivability. Simply put, the janitor in the school constructs a plywood box with unfolded newspapers inside. After filling the box with newspapers, a plywood top is nailed on. The resultant box, with a low center of gravity (so it doesn't fall over during the shaking of the earthquake) is placed next to a desk (so it doesn't crush), or in a school several are strategically placed. The ceiling will come down, rest on top of the boxes, and create voids equal to the height of the paper filled boxes. If you place four of these boxes on the ground and use a crane to lift a Sherman tank in the air and place it on the boxes, they will support it. I came to discover this by witnessing boxes of newspaper holding up entire buildings. The children use lie down next to these safe islands. They survive. You can use stacks of newspaper in plywood boxes to prevent collapsed buildings from crushing you. Gas mains and electrical connections are broken in many thousands of places during earthquakes. Don't risk your life to turn off a "dead" electrical line.



The first building I ever crawled inside of was a school in Mexico City during the 1985 earthquake. Every child was under their desk. Every child was crushed to the thickness of their bones. They could have survived by lying down next to their desks in the aisles. It was obscene, unnecessary and I wondered why the children where not in the aisles. I didn't at the time know that the children were told to hide under something.

At the beginning of this section I informed you of a conversation I had with my webmaster. Now you know, why, during the conversation with the ARTI webmaster I said: "I remember." I do remember crawling up and down the aisles with every child squashed to liquid. Only a little hand or foot sticking out. This nightmare of horror was completely unnecessary. Do not duck and cover. It is death. A horribly mutilated death.

The concept of the triangle, of life is spreading more every day around the world. It is just a matter of time before duck and cover enters the same category as bleeding to cure disease, and the idea that you will fall off the end of the earth" if you sail to far.

The proof is in the pudding. Come with us inside of collapsed buildings to see for yourself,

I have no commercial interests. ARTI members are all unpaid volunteers. I took money from my own pocket which I need for medical treatment, to come here. That is how important your children's lives are to me.

Thank you. Please save the children.

#### Summation: TEN TIPS FOR EARTHQUAKE SAFETY

- 1. Most everyone who simply "ducks and covers" WHEN BUILDING COLLAPSE are crushed to death. People who get under objects, like desks or cars, are crushed.
- 2. cats, dogs and babies often naturally curl up in fatal position. You should too in an earthquake. It is a natural safety/survival instinct. You can survive in a smaller void.Get next to an object, next to a sofa, next to a large bulky object that will compress slightly but leave a void next to it.
- 3. Wooden buildings are the safest type of construction to be in during an earthquake. The wood is flexible and moves with the force of the earthquake. If the wooden building does collapse, large survival voids are created. Also, the wooden building has less concentrated, crushing weight. Brick buildings will break into individual bricks. Bricks will cause many injuries but less squashed bodies than concrete slabs.
- 4. If you are in bed during the night and an earthquake occurs, simply roll off the bed. A safe void will exist around the bed. Hotels can achieve a much greater survival rate in earthquakes, simply by posting a sign on the back of the door of every room, telling occupants to lie down on the floor, next to the bottom of the bed during an earthquake.
- 5. If an earthquake happens and you cannot easily escape by getting out the door or window, then lie down and curl up in the fetal position next to a sofa, large chair.
- 6. Most everyone who gets under a doorway when buildings collapse is killed. How? If you stand under a doorway and the doorjamb falls forward or backward you will be crushed by the ceiling above. If the doorjamb falls sideways you will be cut in half by the doorway. In either case, you will be killed!
- 7. Never go to the stairs. The stairs have a different 'frequency' (they swing separately from the main part of the building). The stairs and remainder of the building continuously bump into each other until structural failure of the stairs takes place. The people who get on stairs before they fail are chopped up by the stair treads-horribly mutilated. Even if the building

be damaged. Even if the stairs are not collapsed by the earthquake, they may collapse later when overloaded by screaming, fleeing people. They should always be checked for safety, even when the rest of the building is not damaged.

- 8. Get Near the Outer Walls Of Buildings Or Outside Of Them If Possible It is much better to be near the outside of the building rather than the interior. The farther inside you are from the outside perimeter of the building the greater the probability that your escape route will be blocked;
- 9. People inside of their vehicles are crushed when the road above falls in an earthquake and crushes their vehicles; which is exactly what happened with the slabs between the decks of the Nimitz Freeway. The victims of the San Francisco earthquake all stayed inside of their vehicles. They were all killed. They could have easily survived by getting out and sitting or lying next to their vehicles. Everyone killed would have survived if they get out of their cars and sit or lie next to them. All the crushed cars had voids 3 feet high next to them, except for the cars that had columns fall directly across them.
- 10. I discovered, while crawling inside of collapsed newspaper offices and other offices with a lot of paper, that paper does not compact. Large voids are found surrounding stacks of paper. You can use stacks of newspaper in boxes to prevent collapsed buildings from crushing you.

"I have crawled inside of 894 collapsed buildings, worked with rescue teams from 60 countries, founded rescue teams in several countries, and I am a member of many of many rescue teams from many countries. I was the United Nations expert in Disaster Mitigation (UNX051 -UNIENET) for two years. I have worked at every major disaster in the world since 1985, except for simultaneous disasters.

I am going to teach you what I learned as I crawled through 894 collapsed buildings so that you and your families will not be killed." Doug Copp

## Section Three SAVING TUGBA Personal Survival story

Millions of people watched us on television as we saved the life of Tugba Alyun, a little Turkish girl. She was trapped under nine floors of concrete for four days after the devastating 1999 earthquake in turkey.



The apartments, seen from a distance, where Tugba was buried amid the rubble after the 1999 earthquake in turkey. Tugba was buried under nine floors of concrete for four days.

For the last eight hours before discovery, she listened to and felt a back hoe bucket. It was tearing her mound of rubble to shreds. She later told me that she was in terror that the bucket was going to trip her head off.

A miracle happened. The backhoe operator saw her little head sticking out from between the slabs. She survived because she was in a rubble void, what I have come to call the "triangle of life", that existed next to her bed. We were 75 feet away on the other side of the building, trying to find the person our search and rescue equipment told us was inside. We rushed to her

She was pinned. She could not move. She could not even twitch. Her arms and shoulder were buried and packed in rubble. Her arm was broken. Her neck and back were injured. Tones on concrete were positioned above her head, ready to slide down and kill her

It took 3 1/2 hours to free her. It was the most complicated rescue of my life. It took all the intelligence, all the knowledge and all the skills I could muster to save her

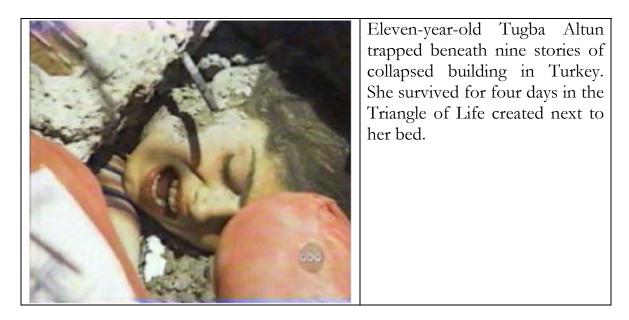
At one point, I put my head down next to hers, looked into her eyes and told her everything would be OK. She smiled and said, in her little voice, "OK At the same time, I decided that if I could not save her, I would die with her. I did not to see another squashed little child. I would rather die. It would hurt less. I remembered the first collapsed building I had ever crawled inside of -a school in Mexico City - with every child crushed to death under their desks. Five hundred thousand people have died at the disasters I have worked at. Seeing dead people is my normal life. I am used to it. Except for kids. That still hurts

My name is Doug Copp. I am the Rescue Chief and Disaster manager of American Rescue Team International (ARTI).

Maybe you saw us featured on the ABC prime time special, "The World's Deadliest Earthquakes, "Good Morning America, Entertainment Tonight or the Real TV program. All of these programs broadcast footage of our saving Tugba. What she didn't know was that everything was not "OK." Although my outward appearance was calm, professional and re-assuring, inside I felt different.

There were several different things that could instantly kill us. When I first stuck my head down next to her and looked under the slab, which had slide down to within <sup>1</sup>/<sub>2</sub>-inch of her head, I was stunned. My heart skipped a beat and my eyes must have bulged. I said to myself: "This is impossible!" The TV pictures showed the slab that came down over her face. This was not the slab immediately above her. The first slab was 1/8th of an inch above her chest and a corner of a piece of plywood, on its edge, was holding up nine floors of concrete from crashing down and killing us both. I felt like I had my head stuck in a guillotine with the trigger pulled and the blade stuck on some dried blood. Two pieces of broken concrete above our heads. The rebar had separated.

These two-ton pieces of concrete could not be supported or stabilized. Nothing could be done. I knew another miracle was needed. These almost vertical slabs were hanging above our heads the entire 31/2 hours of the rescue with no reasonable explanation as to why they didn't just obey the laws of science and slide down over us. It was impossible.

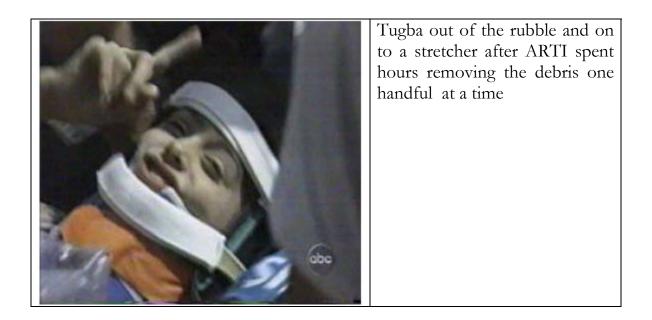


At one point I slid my hand under a beam and, having swept away and removed all the broken chunks of glass (from a China cabinet smashed and broken around her ), I felt over her shoulder and arm and she put her little hand in mine. I told here everything would be OK and she replied again in her little voice, "OK." I was so glad.

Copp picking out the debris from underneath her. Everything above was supported by very fragile debris, so ARTI had to excavate a hole from beneath her body in order to extricate her without bringing it down.



Up till that point I was afraid that her shoulder was crushed under the beam and she was in shock and it would amputation. Miraculously, she was unhurt. Her shoulder and other arm were untouched. We were eventually able to bring her out of the rubble and get her to a hospital.



Tugba survived because she was in the "triangle of life," or the void that existed next to her bed. Almost everyone who does the traditional "duck and cover" in collapsing buildings during earthquakes is squashed when the ceiling crushes the desk or table they hide under.

After saving TUGBA, I went to the collapsed apartment building next door. We worked with French, German, British and Canadian volunteer rescuers on this site. There was a young teenager girl we thought to be alive inside. We all worked hard. It was dangerous. The building was fragile. Every-one was brave.

A backhoe moved over to our building and started to approach. I rushed down and said: "Stay away! The vibration and movement of your heavy equipment will cause the building to further collapse. This will kill the teenager trapped inside."

To my surprise and shock, the operator didn't care. He said that he had a contract to recover the dead body of a man, inside. The family, wanted to recover his body before too much decomposition took place. He was starting up the machine. I stood in front of it. It was showdown.

Our exchange was so intense that I had failed to notice my surroundings. The crowed that had watched us save Tugba earlier in the day had now drawn around this man, his backhoe and me. We both looked around and saw the

crowed. It was dark. They were angry. They had turned into a lynch mob. The backhoe operator, a look of terror on his face, fled for his life, leaving his equipment behind. This crowed had joined my team. I went back to work.

Days of more rescue work later, I was returning to my tent at our base camp for some much needed sleep when I was met by my good friend, fellow ARTI member and Turkish Akut (rescue organization) Chief Memo Tansrever. He discussed Tugba's rescue with me.

"I hear you had a good one," he said.

"Yep," I replied.

He continued: "A little bit complicated."

I said: "Yep." "Saving the life of a brave little girl under such extreme conditions ... is a rescuer's dream come true," he said.

"It came from heaven ... it didn't make up for all the dead, crushed kids who got under their desks... but it was a beautiful thing, "I said. I went into my tent and feel asleep.

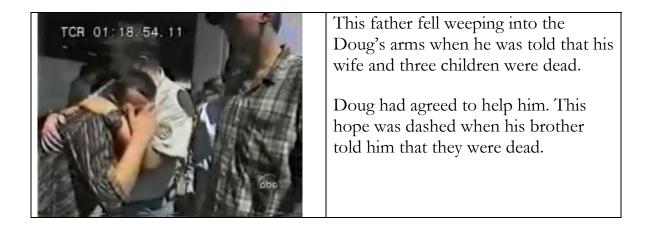
Still later, I went to the hospital to see Tugba and to take her a teddy bear. She kissed me on the cheek and thanked me for saving her life. I thanked her, twice, telling her out loud that her bravery and courage was inspiring to me, and I thanked her inside of my mind. I needed to save her; I had seen too many dead children.



Doug says goodbye at the hospital where Tugba is safe and sound. Tugba kissed doug on the cheek for saving her life.

In the aftermath of that terrible earthquake in turkey in 1999, ARTI/Akut saved 276 lives. And we saved all those lives with a cash budget of \$2.500. that is the biggest miracle of all.





#### Summation:

Duck and Cover is death. It was created by a marketing dept, during the Cold War, to prevent hysteria among the masses, due to Atomic Bomb attack.

No safety expert created it. It is nonsense, rubbish and responsible for the death of 200-300,000 people per year.

The 'Triangle of Life' means survivability. It takes survivability from 2% to 98%.

### Our motto and purpose is:

# " No more dead children! "

doug copp

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